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The core of Mangarla grammar

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Abstract

This thesis is a grammatical description of Mangarla, a Pama-Nyungan language, originally spoken in the Great Sandy Desert of Western Australia. It is based on notes and audio recordings of narratives, elicited data and spontaneous conversation that I recorded between 1990 and 1994, chiefly in the communities of Bidyadanga (formerly La Grange) and Jarlmadangah Burru (formerly Mt. Anderson Station). It is also informed by the work of Kevin McKelson collected between the 1960s and 1980s.

Mangarla is broadly typical of non-prefixing languages in its phonological inventory and its lexical classes (Dixon 1980). However, all aspects of Mangarla are impacted by its distinctive location, surrounded by three different Nyungic subgroups and the prefixing non-Pama-Nyungan languages in the north.

Like its southern relatives, comprehensive case and agreement systems are the primary means of identifying participants, and enabling information to be interpreted correctly, although pragmatics also plays a key role. Morphologically a split-ergative system, nominal arguments (including free pronouns) are marked in an ergative-absolutive system while the pronominal clitics in agreement with them are split along nominative-accusative lines. These typically encliticise to the first element of a clause or to an optional post-initial catalyst rather than the verb, as is the case with other members of the Marrngu subgroup.

Other interesting differences include the loss of the dative marker and lateral-initial ergative/locative forms, together with the addition of other multifunctional nominal suffixes, like source and manner, and the ongoing move from complete case-concord to free marking within the NP.

Like languages to the north and west, Mangarla's lexicon includes many consonant-final preverbs and particles, which are often monosyllabic. The verbal category is unusual in having only three conjugation classes and a large number of complex verbs with a relatively small number of inflecting verb roots. Argument structure also displays a degree of flexibility not generally recognised in Australian languages.

Today, the language is severely endangered with a small number of speakers living in disparate communities outside of traditional lands.

This is to certify that:

i. the thesis comprises only my original work towards the Ph.D.;
ii. due acknowledgement has been made in the text to all other material used;
iii. the thesis is fewer than 100,000 words in length, exclusive of examples, tables, maps, bibliographies and appendices

Brigitte Agnew

Preface

Fieldwork for the collection of materials used in this work was carried out between 1991 and 1994, prior to enrolment at Melbourne University. During this time I was enrolled as a post-graduate student at La Trobe University, but my candidature lapsed in 1995. No information contained herein has ever been published or submitted for publication.

Financial assistance for this research was provided by La Trobe University ($200) in 1991 for the first fieldtrip and the loan of recording equipment in subsequent years. In 1994, $5000 was received from AIATSIS (Grant No. L93/4584). My place at Melbourne University from 2011-2020 was funded by an Australian Government Research Training Program scholarship.

Acknowledgements

This thesis would not have been possible without the support and assistance of the Mangarla communities who sanctioned and supported my work with them. I am indebted and eternally grateful to the individuals who gave freely of their time to teach me and record their language for the generations to come after them.

Kimberley Language Resource Centre and Wangka Maya, Pilbara Aboriginal Language Centre both assisted my access to local people and resources. Kevin McKelson also gave his continued support, encouragement and friendship from 1991 until his death in 2011. This work recognises and hopefully builds on his efforts to record and maintain Mangarla language and culture over almost forty years.

My undying thanks also go to the academics who supported me, both professionally and personally in this very long journey: Edith Bavin for her support in my formative years, Barry Blake for his ongoing presence, Pat McConvell and Mary Laughren for their helpful comments on an early analysis of the BP complex, Margaret Florey for lending personal library and her ear in my darkest moments, and lastly, but certainly not least, my patient and tolerant supervisors, Nicholas Thieberger and the amazing Rachel Nordlinger, who were always there when I needed them with invaluable advice and encouragement.

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Abbreviations and conventions

1	first person
2	second person
3	third person
?	meaning uncertain
*	unacceptable
Ø	contrastive zero morph.
A	transitive subject
ABL	ablative case
ABS	absolutive case
ALL	allative case
ANTIC	anticipatory clitic
ASS	associated with
ASSERT	assertive
AUX	auxiliary verb
BEL	belonging
BP	bound pronoun
C	consonant
CC	copula complement
CCC	clause chain construction
CAT	catalyst particle
COM	comitative case
COMP	complementiser
CPR	comparative
CHAR	characterised by
DAT	dative case
DEM	demonstrative
DEN	denizen
DET	determiner
DIRABL	directional ablative
DIST	distal demonstrative
DU	dual number
DY	dyadic kin relationship
EMPH	emphatic
EP	epenthesis
ERG	ergative case
EX	exclusive
EXPECT	expectational clitic
FUT	future tense
GEN	genitive case
IC	inclusory construction
IMP	imperative
IN	inclusive
INCH	inchoative
INF	infinitive
IPFV	imperfective
KINPOSS	kinship possession
LOC	locative
MAN	manner suffix
MED	medial demonstrative
NARPST	narrative past tense
NEG	negative particle
NOMZR	nominaliser
NP	noun phrase
NPIRR	nonpast irrealis mood
O	object
O_2	second object
OBL	oblique
OBL2	oblique2 clitic
OPC	oblique possessive construction
p.c.	personal communication
PERT	pertaining to
PL	plural number
PLKIN	plural reciprocal relationship
pp	Panpartupanpartu dialect
PRES	present tense
PROX	proximal demonstrative
PST	past tense
PSTIRR	past irrealis mood
PURP	purposive
Q	interrogative particle
QUAL	qualifier
QUANT	quantifier
RDP	reduplication
REC	recognitional demonstrative
RES	resultative
RESTR	restrictive clitic
RR	reflexive/reciprocal
S	subject
SEMB	semblative
SG	singular
Si	intransitive subject
SRC	source
STL	spatial and temporal locator
sp.	species
SVC	serial verb construction
TAM	tense, aspect and mood marking
TOP	topic marker
TC	temporal coincidence
V	vowel
VBZR	verbaliser

Kin-term abbreviations

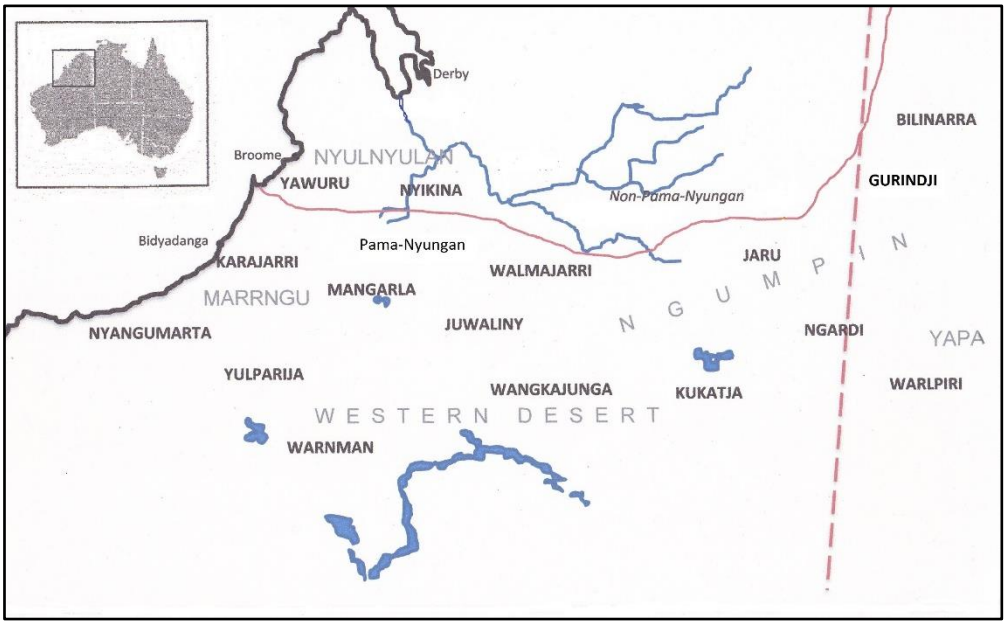
M	mother	F	father	D	daughter	S	son
B	brother	Z	sister	E	elder	Y	younger
H	husband	W	wife				

Language name abbreviations

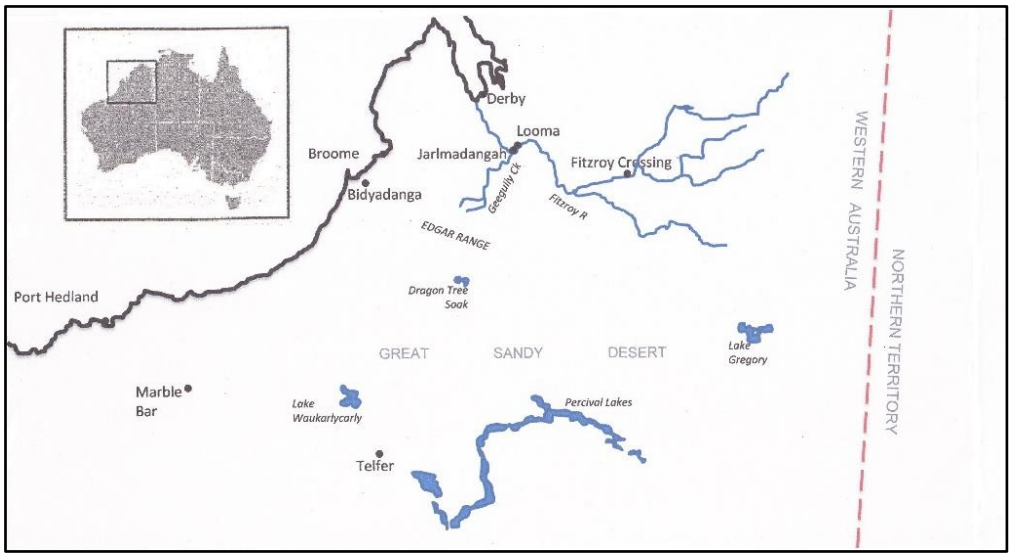
E	English	NK	Nyikina
K	Kriol	WLM	Walmajarri
KJ	Karajarri	YW	Yawuru
NM	Nyangumarta		

Maps

Map 1 Sketch map of North Western Australia indicating the approximate locations of traditional territories of Mangarla and neighbouring languages



Map 2 Sketch map of North Western Australia indicating communities where Mangarla is spoken today



1 The language and its speakers

Mangarla is a Pama-Nyungan language originally spoken in the Great Sandy Desert in the north-west of Western Australia. The name is used to signify both the people and their language. As the most eastern of the three languages in the Marrngu subgroup (O'Grady *et al* 1966, Weber 2009), it is of interest in showing influences from several diverse language groups which surround it. Today, the language is severely endangered with most speakers living in mixed communities which lie directly to the north and west of traditional Mangarla lands.

This chapter gives a brief history of the Mangarla people, their land and language, starting with an overview of the language (§1.1): its linguistic type and classification (§1.1.1), and dialects (§1.1.2). The people and their society are described in §1.2: their traditional territory and lifestyle (§1.2.1), and the social and political history during the colonial (§1.2.2) and current periods (§1.2.3). Section 1.3 outlines previous linguistic investigations, (§1.3.1) and the present work (§1.3.3). Issues of orthography are addressed in (§1.3.2)

1.1 The language

1.1.1 Linguistic type and classification

Mangarla is an agglutinating language which uses suffixes to indicate tense, aspect and modality on verbs, and number and case on nominals. It shares the same characteristics of non-configurationality with languages such as Warlpiri (Hale 1983): free word order (pragmatically determined), discontinuous noun phrases and the general omission of free nominal arguments (zero anaphora). Referents are tracked in discourse using pronominal clitics and anaphoric demonstratives.

The pronominal system marks singular, dual and plural number for all three persons, with an inclusive/exclusive distinction in first person non-singular forms. There are free and bound pronominal forms in a split-ergative case system where nominals, including free pronouns, operate in an ergative/absolutive pattern and bound pronouns operate in a nominative/accusative pattern. Bound pronominal clitics cross-reference the person, number and grammatical function of core participants and generally encliticise to the first element of a sentence, or to a post-initial, semantically void particle, the catalyst.

Complex grammatical relationships are conveyed by extensive use of case marking. Discourse largely consists of strings of simple sentences but both finite and non-finite complex sentences occur, with nominal suffixes often acting as complementisers, and unusually, clause chains employing non-finite verbs with no additional marking.

The traditional location of Mangarla is the Great Sandy Desert in north-western Australia. It shares boundaries with Wati (Western Desert) and Ngumpin subgroups as well as the non-Pama-Nyungan Nyulnyulan languages. It is an example of the power of areal diffusion, reflecting the influences of these neighbours but differing significantly from many of them in other ways, including its loss of overt dative marking, having only three conjugation classes in the verbal paradigm rather than four or more, and its loss of the proto-Pama-Nyungan lateral-initial ergative/locative case forms on vowel-final stems (Blake 1988, Alpher 2004). Other interesting features include its use of clause chains and multiple possessive constructions.

Capell (1962:53) classifies Mangarla as 'Western Desert type' along with Karajarri and Nyangumarta and distant languages Warlpiri and Malngin. O'Grady, Voegelin and Voegelin (1966) assign Mangarla to the Marrngu subgroup of the Nyungic branch of Pama-Nyungan, together with Nyangumarta and Karajarri. The grounds for this are the high percentage of lexical cognates with Karajarri, although Mangarla was originally omitted from this subgroup by O'Grady (1964) as the 46% cognacy with Nyangumarta fell below his 50% criteria for membership of a linguistic subgroup in Australia.

Mangarla also shares a high number of lexical cognates with languages of other subgroups. Table 1.1 shows approximate numbers of cognates in 10 neighbouring languages. Percentages are derived from 100 words from the list of 400 common words, including 84 of Hale's 100-item core vocabulary list for Australian languages (Sutton and Walsh 1987:5). Sixteen substitutions were made due to the unavailabilty of data from all 10 languages. Table 1.1 is divided into Pama-Nyungan and non-Pama-Nyungan languages and three subgroups of the former. Some numbers vary from, but most are in the vicinity of those from previous surveys (*e.g.* O'Grady 1966, Hudson (1993 p.c. based on data from 1973), Sharp 2004, Jones 2011, Hosokawa 2011).

Table 1.1 Lexical comparison of 10 neighbouring languages

Non-Pama-Nyungan		**Pama-Nyungan**							
Nyulnyulan		**Marrngu**			**Ngumpin**		**Wati**		
Yawuru									
56	Nyikina								
17	9	Nyangumarta							
31	20	57	Karajarri						
20	28	34	41	Mangarla					
8	17	24	27	45	Walmajarri				
14	14	22	25	32	45	Jaru			
12	11	24	22	30	30	34	Wangkajunga		
13	11	24	27	28	28	30	89	Yulparija	
6	4	40	25	25	21	29	39	48	Warnman

Lexical cognates with the prefixing languages to the north, Yawuru and Nyikina, include a number of consonant-final words, many of which are mono-syllabic. These phonological differences, aberrant in languages to the south, are also noted by Geytenbeek and Geytenbeek (1980),[1] who also note the absence of long vowels in Mangarla.

More recent work using the comparative method has confirmed Mangarla's membership of the Marrngu subgroup together with Nyangumarta and Karajarri. Weber (2009) shows evidence of relatedness by comparing 300 cognate sets, along with the pronominal systems and verbal conjugations, also noting a high number of loanwords from Nyulnyulan languages. Bowern and Atkinson (2012) and Bouckaert *et al* (2018) use Bayesian phylogenetic analysis based on lexical cognates to show the relatedness of these languages within the Marrngu subgroup and to higher level groupings with other

[1] Gasser and Bowern (2014:8-9), however, note that the claim against mono-syllabic words in Australian languages is overstated.

subgroups of the Western Desert region in the Nyungic group of the Western branch of Pama-Nyungan.

A major syntactic difference from the other two Marrngu languages involves the placement of bound pronominal clitics. In Nyangumarta and Karajarri, these attach to the verb regardless of its position in the clause (McKelson 1974:15, Sharp 2004). In Mangarla, as in most of the languages in the neighbouring Wati and Ngumpin subgroups, these clitics attach to a word or particle near the beginning of the clause. In the northern Western Desert languages such as Manyjilyjarra, Wangkajunga and Yulparija, this is the first element of the sentence regardless of word class (Jones 2011:149). In the Ngumpin-Yapa subgroup including Warlpiri, Gurindji, Walmajarri and Jaru, they attach to a particle, the catalyst/auxiliary, which generally occurs in second position (Hudson 1978, Tsunoda 1981, McConvell 1996). Both practices occur in Mangarla, as in Ngardi (Tsunoda 1981:125) and Eastern Walmajarri (Jones 2011:150). In Mangarla, the catalyst does not carry any semantic value, unlike Walmajarri (Hudson 1978) and Warlpiri (Nash 1986, Simpson 1991), and its use is optional (§6.3.2). The catalyst and pronominal clitics sometimes constitute the first word of the clause, as they may in Ngardi (Honeyman 2005:57).

1.1.2 Dialects

Using the entrenched spelling without the retroflex lateral, ‘Mangala’, as headword, AUSTLANG (2018), a web enabled database of information Australian Indigenous languages assembled from multiple sources, gives a range of synonyms for the language, most of which appear to be simple spelling/pronunciation variations (see §1.3.1). Three terms, however, do not fall into this category: Koalgurdi, Yalmbau and Djuwali(n)/Jiwarli. McGregor (1988a:156) names these as possible dialects. The last one is most likely Tjiwaliny (or Juwaliny), now recognised as a dialect of Walmajarri, spoken to the east of Mangarla. The term is reported by Tindale (1974:257) to be a Mangarla word which refers to these neighbours. The other two are not recognised by the Mangarla speakers I have met.

Speakers recognise two dialects of Mangarla, as given by McKelson (1974:36) who calls them ‘Bush Mangarla’ and ‘Riverside Mangarla’. The former, dubbed *panpartupanpartu* (also spelt *panpurtu*) after the medial demonstrative which contains an epenthetic *-pa-*,

was originally spoken in the far south and east of traditional Mangarla country, while the other dialect was spoken around the Edgar Ranges and Fitzroy River in the north-west. Due to patterns of migration, it is possible that *panpartupanpartu* was predominant at La Grange and the other more common at Looma, although post-contact communities have always been mixed, with speakers of both dialects. 'Riverside' or 'light' Mangarla appears to be more prestigious around Jarlmadangah Burru and some, whose *panpartupanpartu* origins occasionally become obvious, are quick to deny them. However, most people are related and there is considerable movement between the two communities and the two dialects seem to have merged.

Like McKelson, I found no-one who could articulate the dialectal differences beyond a few lexical variations (which seem to reflect the lexicon of northern or southern neighbours respectively) and an assertion that *panpartupanpartu* is a 'little bit strong' or 'heavy'. Dialectal differences were not identified by speakers as important to the learning of Mangarla. One lexical distinction is the use of *kakurtu* or *ngulartu* 'enough, finish, alright' to close a discussion. The former belongs to 'light Mangarla' and the latter to *panpartupanpartu*, which is sometimes referred to in the literature as *Ngulartu* dialect (Weber 2009). Today around Looma, both words are used alternatively by many speakers regardless of their origins. The word *ngulartu* is shared by Warnman, spoken to the south (Burgman 2010:95). McKelson (1974:36) reports that Bush Mangarla (*panpartupanpartu*) prefers the use of the catalyst with pronominal clitics, and notes differences in demonstrative forms but also states, 'In this study I have not been able to differentiate clearly between riverside and bush Mangala' (p. 144).

1.2 The people

1.2.1 Traditional land and lifestyle

The traditional lands of the Mangarla are contained in the northern region of the Great Sandy Desert. In Mangarla tradition, the land in its present form was created during the *mangarikarra*, or Dreaming, when ancestral giants moved around the featureless countryside forming the land as they went. Many of the beings and their implements remain in the environment as geographic features. Songs and stories tell of these and more recent ancestors whose journeys form an oral history of the people and serve to remind

them of their heritage and responsibilities. As people moved from one place to another they were guided by the story they found themselves in.

Traditional lands are largely uninhabited today and there are only a few people left who remember the desert life. The area is bounded in the north-west by the Edgar Range (*Walangkarr*) with a narrow corridor extending north along the Geegully Creek system (*Jirrkali*) towards the Fitzroy River (*Martuwarra*), and reaches beyond the McLarty Hills (*Lumpurrlumpurr*), Dragon Tree Soak (?*Wiriwirlki*) and Joanna Springs (*Kalurn* and *Pikurangu*) in the south. McKelson (1989a), Tindale (1974) and myself have all recorded many placenames within the country. However, although Tindale (1974:247) gives some mapping coordinates and approximate distances, precise locations are generally difficult to determine due to the inaccessibility of the terrain, the absence of named features on most modern maps and the fact that mudmaps made by speakers which depict territorial boundaries, traditional placenames and their relative locations give no real indication of distances.

Neighbouring language groups are Juwaliny/Walmajarri (Ngumpin-Yapa subgroup) to the east, Karajarri and Nyangumarta (Marrngu) to the west, Nyikina (Nyulnyulan) to the north around the Fitzroy River, and to the south, Warnman and Yulparija (Wati), with Wangkajunga (Wati) in the south-east (see Map 1).

The climate is tropical arid with any rainfall occurring during the summer. The area is made up of red sands forming dunes (*wanyanu*) which line up parallel in a west to north-westerly direction. They may be up to twenty metres high and between a half and several kilometres long. In between the dunes are plains (*yura*) which are firmer and often a little more fertile. There are no permanent water courses and in the dry season, water is obtained from soaks which are dug where the watertable is close to the surface or from sinkholes, springs (*jila*) and rockholes (*wirrkuja*) in areas where the sand gives way to calcrete (like limestone) outcrops.

McKenzie (1981) and Burbidge and McKenzie (1983) give scientific descriptions of the flora and fauna which is not rich and is dominated by varieties of spinifex and grasses. The fauna of the area consists mostly of reptiles and small or medium-sized nocturnal mammals such as the spinifex mouse and bandicoot, although there are several species of kangaroo and wallaby as well as emus and dingoes. Since European occupation exotic

species such as feral cats, camels and rabbits have been incorporated into the desert economy.

In the north-west, the Edgar Range rises gradually out of the desert and falls suddenly in 'washaway' cliffs down to the plains around the Geegully Creek. This range of sandstone and mudstone is the interface between the sub-humid Kimberley basin and the desert. Its vegetation is typical of pindan: grassland wooded chiefly by eucalyptus, grevillea and acacia species. Water is more available in this region due to the presence of permanent waterholes in the rocks of the range and along the Geegully Creek.

The world view and lifestyle of the Mangarla and other desert people are highly attuned to the landscape and seasonal changes. The Mangarla year was basically divided into four named seasons: *ngapakarra*, 'rainy season', *wirralpuru* or *parrkana*, 'cool time', *wilpuru*, 'dry time, getting warmer, bush food season', *laja*, 'hot and dry season'. These times of the year were further classified according to the prevailing winds and periods of plant production and growth.

Traditionally, small and extended family groups led a highly mobile life in the desert, traversing the land between waterholes, hunting and gathering. Economic roles were well defined; men were chiefly responsible for hunting while women cared for the children, hunted small animals and gathered and prepared vegetable foods. Wood and stone implements gave way to glass and metal with the arrival of white settlers.

Early explorers and settlers give accounts of the traditional lifestyle of similar and neighbouring groups as it appeared to them, *e.g.* Carnegie (1898). Anthropological texts such as those by Tonkinson (1974), Elkin (1979) and Berndt and Berndt (1965) give more general cultural and historical information. The local desert lifestyle of closely related Walmajarri people is also documented in Hudson, Richards *et al.* (1978) and Lowe and Pike (1990).

1.2.2 Post-contact

The first white people to enter Mangarla country were exploring parties. Those led by Warburton in 1873 and Calvert in 1896 are likely to have passed through southern Mangarla lands. In 1897, L.A. Wells traversed the Edgar Range heading southward in search of missing members of the Calvert Scientific Expedition (McKenzie 1981).

Although the larger part of their territory was never settled by Euro-Australians, those Mangarla people living around the Edgar Range and Geegully Creek were probably the first to feel the impact of the European invaders, pastoralists who took over the land immediately to the north around the Fitzroy River from 1880. Pastoral leases have existed around the Edgar Range since 1908 (McKenzie 1981). Casual contact was made by people still living in the bush who exchanged dingo scalps and skins for foodstuffs or tobacco. Some became pastoral workers voluntarily but the policy of the regional authorities was to round up traditional people and attach them to a particular property, forcing them to give up their traditional lifestyle. They required a licence to leave the station and escape from this slavery was punishable by law (*cf*. Reynolds 1990:216-217).

The antagonism of whites toward Aboriginal people who attempted to maintain their traditional way of life resulted in the decimation of the Aboriginal population. In 1895 police reinforcements were sent to Derby to 'deal' with the Aborigines. Up to two hundred people were killed in the two month expedition which occurred throughout the Fitzroy Valley (Catholic Ed. 1988:54). Accounts of shooting parties and massacres are common in the Kimberley, although rarely documented (see Reynolds 1990, Catholic Ed. 1988) and Mangarla people were not excluded from such excursions. The film 'Whispering in our Hearts' (Mayfan and AFFC 2002) documents the erection of a memorial in 2001 to commemorate the lives of Mangarla, Nyikina and Karajarri people who were shot and burned by local station bosses and policemen near Mowla Bluff (*Ngiyingiyi*) in 1916, which a police inquiry in Broome in 1918 deemed not to have occurred.

First hand reports describe the 1930s and 1940s as a time when many people left the desert to live more or less permanently in white settled areas. Years of drought may have influenced this mass migration, along with the appeal of permanent work on pastoral stations. Personal accounts of life on the cattle stations describe the 1930s-1960s as a time of adaptation, where traditional knowledge and practices existed alongside the new lifestyle (Marshall 1988, Milgin 1994).

In 1949, the government's 'youth training facility' at Udialla, which had operated since 1944 to train young Aboriginal people for the pastoral industry, closed. Families were loaded onto trucks and moved to the La Grange Bay Feeding Depot (as it was officially known (Neville 1936, Gray 1994) between 1900-1955), 200 kilometres south of Broome

on Karajarri lands by the sea. Here, people from more than five distinct language groups were lumped together, the major groups being Karajarri, Nyangumarta, Mangarla, Juwaliny (Walmajarri) and Yulparija.

This forced movement split the Mangarla community into two with many people remaining on pastoral properties around the Fitzroy River. Further migrations took place over many decades, with people coming 'down' from the bush to join relatives or take employment on stations. Officially, the last group to leave the desert came to La Grange in 1968 (Australian Law Reform Commission 1986:25) although one family remained in the desert until the early 1970s (McKelson p.c. 1993).

In 1955 the Government depot was transferred to the Catholic Pallottine order. The mission ran a cattle business and started up a school. Indigenous languages have been taught, either legitimately or illegitimately, from the school's inception. Church services have been conducted in language periodically since the 1970s by Father McKelson who became fluent in each of the five main languages. By according it due respect, documenting and encouraging its use, he helped to maintain Mangarla language. Bidyadanga became an independent community in 1982.

After equal pay for Aboriginal pastoral workers in the Kimberley was legislated in 1969, many stations refused to allow Aboriginal people to stay on 'their' property. Others lost their economic viability and ceased operations. By the early 1970s, many families once again found themselves displaced. The site of the present community of Looma was established as a perpetual pastoral lease in 1974 on land excised from Liveringa Station (Stokes 1982:4), becoming the home of many Mangarla, Nyikina and Walmajarri people. Others moved to the larger centres in the region such as Derby and Fitzroy Crossing.

1.2.3 The present situation

Mangarla people were highly mobile both before and after white settlement. Their post-contact history resulted in dispersal from their traditional lands into mixed communities on lands traditionally held by other groups where they have historically formed a low status minority group. There are no exclusively Mangarla communities.

Of the four main centres where the Mangarla population lives, Jarlmadangah Burru is a proclaimed Nyikina/Mangarla community. It was established in 1987 by the traditional

owners on a holding excised from Mt. Anderson Station. Nyikina/Mangarla families moved here from Looma in an effort to maintain their unique culture and heritage. This community is home to around 80 people, nearly all of whom are related and claim Mangarla heritage. Nearby Pandanus Park is only slightly larger, and both Looma and Bidyadanga remain multi-language communities with populations around 500.

In addition to these remote communities, the larger centres of Derby and Broome, which service them, have also attracted a number of speakers. Individual speakers and their descendents often move between towns and pastoral leases which are spread over a large area throughout the Kimberley and Pilbara regions, including Fitzroy Crossing, Broome, Port Hedland, Telfer, Warralong and Jigalong.

The regional centres service large areas with modern facilities. All four remote communities are run by community councils providing housing, schools, health clinics and shops. Although everyone participates in the cash economy, traditional food sources supplement the diet and traditional practices are maintained alongside the new customs. People of working age are employed in a variety of jobs involved in the operation and maintenance of these services, in the running of the community or in pastoral work. Most people over 60 are pensioners. At Jarlmadangah Burru, community leaders are proactive and involved in a large number of cultural and economic projects, including tourism and agricultural partnerships. An internet search will reveal the strength and breadth of this community's interests. In recent years, a number of land claims have been granted which have opened many other economic opportunities. Mangarla people were claimants along with Walmajarri, Wangkajunga and Juwaliny people in the Ngurrara native title claim over 77,000 km^2 of the Great Sandy Desert in 2009. In May 2014 a large native title claim of around 26,000 km^2 through the lower Fitzroy Valley and into the Great Sandy Desert was granted to the Nyikina-Mangarla people (Kimberley Land Council 2018).

The nature of their recent history makes it difficult to calculate the speaker population. McGregor (1988a:156) cites Black and Walsh's **(**1982) estimate that there were about twenty speakers at Bidyadanga and Broome but notes Vaszolyi's (1972) claim that the language is nearly extinct. These beliefs have persisted until today (*e.g.* 'In 2002 there were estimated to be less than 20 Mangala speakers left in the Pilbara' (Wangka Maya 2018), 'No remaining speakers in 1986' (Simons and Fennig 2018).

In 1995 Mangarla became the second strongest traditional language spoken in Bidyadanga, behind Yulparija (McKelson p.c. 1996). I estimated in 1992 that there were at least 30 fluent speakers (not all of whom identify primarily as Mangarla but who speak Mangarla as a first or second language) with perhaps 30 or so others with a partial or passive knowledge. However, this small population continues to age and many have died since my initial involvement with the group in 1991. An American linguist estimated in 2011 only about seven fluent speakers remained (Natalie Weber p.c. 2011) down from 10-12 in 2009 (Weber 2009:3). Most young people are not learning Mangarla today. Primarily, they speak Kriol or Aboriginal English and may learn other languages depending on where they live and their parental affiliation.

Figures from the 2016 census show 68 people report speaking Mangarla at home in Australia, 19 came from Bidyadanga and 22 from Looma (A.B.S. 2016a,b,c,d). No detailed figures are available from Jarlmadangah or Pandanus Park due to the small samples. These statistics may well be inaccurate,[2] but are given to indicate the comparatively low percentages of Mangarla speakers in these communities, rather than as an accurate picture of the health of the language which is clearly in danger of being lost.

The interference of other languages has contributed not only to the endangered status of Mangarla and merging of the two dialects, but has resulted in other changes over the last fifty or so years as speakers incorporate lexical borrowings and syntactic strategies from from English, non-Pama-Nyungan, and other Pama-Nyungan languages. Where known, these are identified in relevant sections of this work.

Social organisation, like language use, has undergone changes with increased contact and finds different expressions in different communities. The Christian church has influenced many people in the area. However, the basic social unit is still the extended family. People are related often through blood or marriage ties, but all people are related according to

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[2] A language may be nominated on a census for reasons other than daily use, *e.g.* cultural identity. Conversely, some fluent speakers may also have been omitted from the census process, or not claimed to speak the language at home. Interestingly, the number of speakers in the 2016 census is higher than it was in 2011.

the (sub)section system which operates. Appendix 2 gives an overview of traditional and more recent systems of social organisation.

1.3 Research and fieldwork

1.3.1 Past Investigations

The language name is typically spelt Mangala, following the early researchers discussed below, although O'Grady *et al.* (1966) also give Manala and Minala as alternatives and McGregor (1988a:156) also lists Mangai and Mungala. Both McGregor (1988a) and Thieberger (1994) survey resources on Mangarla, most held by the Australian Institute for Aboriginal and Torres Strait Islander Studies (AIATSIS). McGregor describes Mangarla as a priority language for further research and grammatical study.

The majority of research into this language is general and comparative in nature, often superficial and not always accurate. Most comprises simple vocabularies, although the pronominal clitic system has generated considerable interest. Existing works fall into two categories: those collected in the field and those constructed by latterday researchers from this fieldwork. Most in the first category are concerned primarily with anthropological or ethnographic topics. Few deal exclusively with Mangarla and nearly all data were gathered at La Grange. Given the complex language situation of this community, the influence of other languages is sometimes observable.

Early general ethnographic studies were conducted in the region by both Petri and Worms. Von Brandenstein's general comparative linguistic studies in the area (1965, 1970a) and later works on totemism (1982, 1985) briefly mention Mangarla. During his expedition between 1952-1954, Tindale recorded lexical items as well as maps of traditional lands, genealogies and kinship and section frameworks for Mangarla and other desert tribes.

One of the earliest collections of Mangarla language data was in the 1930s by Nekes. Nekes (1939) compares the pronouns of the languages in the Broome area and includes some Mangarla. Nekes and Worms' (1953) comparative work in the region also documents much Mangarla vocabulary and general features of the language.

O'Grady, Voegelin and Voegelin (1966) are the first to classify Mangarla in the Marrngu subgroup along with Nyangumarta and Karajarri. O'Grady's (1967) audio recordings of languages between Carnarvon and La Grange include some Mangarla. O'Grady (1968:239-242) gives a wordlist and a few simple untranslated sentences. The same work compares pronominal clitics of the five languages spoken at La Grange Mission.

Fr. Kevin McKelson began collecting and learning the five languages spoken at La Grange, including Mangarla, in the early 1950s. Despite the fact that he had no formal linguistics training, he became fluent in each language, translated religious materials, produced a number of articles, teaching materials and grammatical studies of Mangarla over 40 plus years and encouraged more interest and research into this language. In 2003 he was awarded an Honorary Doctor of Laws by University of Notre Dame Broome for his documentation of Aboriginal languages. He died aged 85 in December 2011.

His *Basic Mangala* (1977) and *Mangala: Topical Vocabulary* (1989a) are all reworkings with updated orthographies of his core work *Studies in Mangala* (1974) which contains a large number of lexical items, verbal and nominal inflections and simple sentences. His *Topical Vocabulary* is periodically reprinted, most recently in 2005 by Wangka Maya Pilbara Aboriginal Language Centre. In addition to translations of religious texts, his other works include:

- *Comparative study of Pronouns* (1978) illustrates the pronominal systems of the five languages spoken at La Grange - Nyangumarta, Karajarri, Mangarla, Yulparija and Juwaliny (a dialect of Walmajarri);
- *Notes for staff* (1981) explains the kinship system of the same five language groups in La Grange;
- *Learn some Mangarla* (1983) gives forty lessons to learn Mangarla.

Geytenbeek and Geytenbeek (1980) give several pages of Mangarla material (mostly wordlists from a few informants) in their *Nyangumarta fieldnotes 1976-9*. Vaszolyi (1972) describes the phonological system and gives a very good wordlist, as does Joyce Hudson (1973).

The data collected by these fieldworkers have been analysed by students at Australian National University. Butt (1979), Chow (1974), and O'Ferrall (1974) have compiled

sketch grammars primarily based on the work of McKelson. The quality of these has been hampered by orthographic inconsistencies in the original sources.

Tsunoda (n.d.) *Comments on McKelson's Comparative study of pronouns* analyses data from McKelson (1974), O'Grady (1962, 1964), and Capell (1962). It also contains inconsistencies which arise from the primary sources, and concentrates on the other languages for which there is more data. Mangarla pronouns are listed in several case forms, some of them unattested by McKelson or this study, and no sentence examples are given.

Between 2008 and 2012, two American students from Rice University, Cassandra Pace and Natalie Weber, worked with speakers from Bidyadanga and Looma. Pace's focus was on phonology while Weber's interests were broader. She produced a comparative study of the three languages in the Marrngu subgroup (Weber 2009) which is available from the Australian Institute of Australian and Torres Islander Studies, and unpublished papers on the purposive verbal suffix in Nyangumarta (Weber 2012) and the possessive in Mangarla (Weber 2013).

1.3.2 Orthography

Currently Mangarla language is being written down in a variety of places, for a variety of reasons. Ever since a school was established at Bidyadanga (La Grange) in the 1950s, a Mangarla language program has operated intermittently. The focus in some years has been on oral skills rather than literacy but in others, reading and writing is taught and a small number of Mangarla-literate young adults live at Bidyadanga. A school language program in Looma has also focused on oracy in Mangarla and other community languages.

Few written texts exist and these are mainly local stories to be found among La Grange school's literacy materials and religious texts including a Mangarla mass, prayers and biblical translations by McKelson. A small group of adult students from Bidyadanga in the 1990s were trained in The Certificate in Aboriginal Language Work course at Pundulmurra College and produced written materials in Mangarla. Stories told as part of the present research were also prepared as small booklets and given to the story-tellers at Jarlmadangah Burru in the 1990s.

Up until the late 1970s, there was no attempt to use a standard orthography. Written words were generally for personal use. After Hudson and McGregor (1986) published *How to spell words in South Kimberley languages*, theirs became the accepted orthography in La Grange School, and with language centres of the region. Burgman (2005a) uses this orthography in the revised edition of McKelson (1989a). Neighbouring Walmajarri and other languages used at Bidyadanga use the same orthography. It has also been used extensively to train language workers by language centres, Education Department of W.A., and Pundulmurra College in Port Hedland. For consistency, it is used in this work. Tables 2.1 and 2.2, in chapter 2 set out the consonant and vowel inventories in this orthography.

However, to my knowledge the larger Mangarla community has never authorised any orthography. Around the Fitzroy River, a different system is used for Nyikina which Jarlmadangah Burru also uses for Mangarla, and both systems co-occur alongside unsystematic spellings by individuals.

1.3.3 This study

This work uses basic linguistic theory to describe the Mangarla language as currently spoken. It seeks to clarify and supplement previous works, provide a systematic and comprehensive description of the morphosyntax including the verbal system, bound pronoun complex and syntax of simple and complex clauses. Where relevant, it makes comparisons with related languages, applies different theoretical frameworks and refers to current debates to assist the analysis.

I started researching Mangarla in 1991 as a post-graduate student at La Trobe University and continued in this capacity for four years before abandoning study. The present work is an analysis of the field work completed during that time.

1.3.3.1 Fieldwork, consultants and data

Between July and October 1991, I began to learn the language at Bidyadanga while assisting with the school's language program. My teachers were involved in the school in some way. As the broader community had not instigated my presence, I found it difficult to involve them in the research. My time there was spent examining the extent and quality

of McKelson's materials and gaining an introduction to the language and the people. Some formal elicitation sessions were recorded only as fieldnotes.

Later that year, with assistance from the Kimberley Language Resource Centre, I met representatives from Jarlmadangah Burru, who were prepared to support my academic research in order to record and document their language, although they later proscribed the use of mythological texts for this purpose. I commenced work at Mt. Anderson in April 1992 with their nominated language consultants. Over the next three years, I intermittently lived and worked in communities around Derby and Fitzroy Crossing.

Widgee Henry took chief responsibility for my linguistic and social success and helped me expand my network of consultants. Most were elderly and all were in poor health. Many have since died. Few were literate in English but Frank King read Walmajarri. Speakers from Looma were not approached directly apart from one who was unwilling to participate, having already contributed heavily to McKelson's work, and none approached me.

The material collected at both locations in the 1990s is referred to here as the 'Jarlmadangah corpus' to differentiate it from McKelson's corpus. It consists mostly of narrative texts, primarily oral histories and accounts of historical events, but also includes some procedural texts, informal conversations, elicitations (both direct translations, coded 'sents', and descriptions guided by visual prompts, coded 'PSa/h'), and songs. Many illuminating examples were offered incidentally while glossing and translating the texts. A collection of 73 digitised sound recordings are held by AIATSIS with collection codes AGNEW_B01 and AGNEW_B02. These are supplemented by field notes (coded nbkx:page#) written during more informal or unplanned moments with consultants, when a tape recorder was unavailable.

Table 1.2 lists all people consulted, with primary consultants listed in the first section. Official (European) names are given where they are known. Others are listed as I knew them. Spelling may vary from that given in other sources. It also shows the community in which they lived at the time, an indication of whether they were over 60 (+) or under (-). Speakers are matched to reference codes attached to examples used in this work in Appendix 3, which also details information about song materials collected during this time, but not used in the preparation of this work.

As many of the people listed are now deceased, users of this information should be warned not to cite or say the name of a deceased person in the presence of their relations. This warning extends to names used in examples and texts contained herein.

Table 1.2 Consultants employed in this study

Name	±60	Residence
Widgee Henry	+	Jarlmadangah Burru
Nancy Missibah	?	Jarlmadangah Burru
Darby Nangarpany (Nangkiriny)	+	Jarlmadangah Burru
Roger (Rakartu)	+	Jarlmadangah Burru
Nancy Yanawana (Maya Maya)	+	Bidyadanga
Dundora	-	Bidyadanga
Frank King	+	Fitzroy Crossing
Molly (Takarltarl)	+	Jarlmadangah Burru
Annie Milgin	-	Jarlmadangah Burru
Harry Watson	-	Jarlmadangah Burru
Maggie Pingedee	+	Jarlmadangah Burru
Michael Mowanti	?	Jarlmadangah Burru
Peter Francis	-	Jarlmadangah Burru
Barney	?	Jarlmadangah Burru
Queenie Milgin	+	Derby
Gladys Johnson	+	Derby
Roger Henry	-	Bidyadanga
Juli Juli	-	Bidyadanga

1.3.3.2 Presentation

Topics are presented in a fairly standard order for works of this type, with an overview of the phonology (§2) following this introduction, and identification of parts of speech in §3. Each word class, its internal subgroups and applicable inflectional and derivational morphology, is then examined in detail: nominals (§4), free pronominals (demonstratives and interrogative/indefiinite and free personal pronouns - §5), pronominal clitics (§6), simple and complex verbs (incorporating preverbs- §7) and verbal inflections (§8).

Syntactic constructions, beginning with the noun phrase (§9) and special nominal constructions (§10) are described before moving on to simple sentences (§11), copula and non-verbal sentences (§12) and finally complex sentences (§13).

Examples are numbered sequentially, starting with the number of the chapter followed by the number of the example. Glosses follow the Leipzig Glossing Rules (Comrie, Haspelmath and Bickel 2003) where practical, although some departures are made as outlined in the list of abbreviations on page (xvi-xvii). A reference code for each example is given after the translation in brackets. Most give the text reference and the clause number within it. Examples identified by 'alt' are alternative expressions or additions given while glossing texts. Those labelled 'sents' are compilations of field notes and are not generally attributable to an individual speaker. Where they can be attributed, the speaker's initials are given in addition to the compiled text code. Appendix 3 contains a list of the identification codes used in this work and the speakers who contributed to them. Translations are largely my own English approximations, guided by speaker input, and do not pretend to cover the full range of meanings of the Mangarla terms, which are often semantically complex. Further research in this area is highly recommended. Most examples are given not as complete words but as their morphemic representations. Thus, hyphens used to separate morphemes may not feature in word level representations.

Some illustrative examples depict violence or painful subject matter. Where possible, I have attempted to use material from my own corpus rather than that of McKelson, which may contain less controversial themes. The Jarlmadangah corpus consists largely of sustained texts, some of which concern inter-racial tensions of the past: misguided government policies (*e.g.* the forced removal of children as depicted in Text 1, Appendix 1) and the *Ngiyingiyi* murders outlined in §1.2.2. These stories have personal or historic importance to the community members who volunteered them without influence from the researcher. Aboriginal people have repeatedly voiced concern that the injustices of the past are not forgotten and that such stories are told and acknowledged. However, context is lost when material is extracted and used as linguistic exemplars, and the reader is warned that such material should not be misconstrued, nor given any significance apart from the illustration of a linguistic feature under discussion. Any future use of such material should be sensitive to the environment in which it occurs and appropriate contextual explanation provided.

Illustrative examples in this work are also taken from McKelson (1974) and his religious translations to supplement my own information and provide more comprehensive or unusual examples. They are given as presented in the original (including his representation of a velar nasal with the symbol n̄), before an updated morphemic representation with orthographic changes consistent with the current work. The reference code is marked on the same line as the original translation, typically the first, and any revision is clearly identified, generally indicated in subsequent lines and unreferenced. Those from McKelson (1974) are referenced as (McK:page#) and those from his religious texts as (McK:RT). The code (McK:PSxx) gives the clause number (xx) of a text appended to McKelson (1974), informally referred to as Paddy's Story, the first part of which is reproduced as Text 2 in Appendix 1.

2 Phonology

This chapter outlines the basic features of the phonological system of Mangarla, describing the phonological inventory and its phonetic realisations (§2.1), the phonotactics of the language (§2.2) and morphophonemic features (§2.3). These interact in different ways to produce allophonic variations, particularly with nominal morphology.

2.1 Phonemes and their realisation

The phonological inventory of Mangarla conforms to that of many Pama-Nyungan languages (Dixon 1980:129, 147, Fletcher and Butcher 2014, Gasser and Bowern 2014), and in particular, those of the desert regions of north-western Australia in that it lacks fricatives and any voicing contrast, has a nasal corresponding to each stop, contrasts two apical series, but has only one set of laminals, and has two rhotics. There are 20 phonemes, 17 consonants and three vowels. I will describe the vowels after first examining the consonants.

2.1.1 Consonants

There are five points of articulation for stops and nasals, with an apical contrast. Non-peripheral stops have a corresponding lateral. The consonant inventory is given in Table 2.1 in the practical orthography which is used throughout this work.

Table 2.1 Phonological inventory for Mangarla: Consonants

	apico-		**lamino-**	**peripheral**	
	alveolar	**post-alveolar**	**palatal**	**dorso-velar**	**bilabial**
stop	t	rt	j	k	p
nasal	n	rn	ny	ng	m
lateral	l	rl	ly		
approximant		r	y		w
tap/trill	rr				

The peripherals are articulated at the extreme front (bilabials) or back (dorsals) of the mouth. They differ from apicals and laminals in not having a corresponding lateral. Apicals are either alveolar (when the tip of the tongue makes contact with the alveolar ridge) or post alveolar (retroflex), when contact is made behind the alveolar ridge. Both types contrast stops, nasals, laterals and rhotics, although in word-initial position the apical contrast is neutralised (§2.2.1).

Phonological contrasts are evidenced by minimal pairs, showing oppositions in place (§2.1.1.1) and manner (§2.1.1.2) of articulation. Full sets of contrasting forms are not always available so sub-minimal pairs are shown when necessary. Suffixes are preceded by a hyphen. In some cases, contrasting pairs occur so infrequently that the contrast is rarely necessary to understand an utterance. In addition to this, individual speakers sometimes neutralise an opposition. These and other cases of allophonic variation will be discussed where relevant. The larger apical group is examined separately.

2.1.1.1 Contrasts by place of articulation

Consonant phonemes are produced in five places of articulation: bilabial, alveolar, post-alveolar, palatal and velar. The glide /w/ can be considered as both bilabial and velar.

Bilabials /m, p, w/

Bilabial contrasts occur in nasals, stops and glides, shown by the following pairs:

/m/	/p/	/w/
ramu ‘pattern’	*rapu* ‘light (weight)’	*rawu* ‘grist’
murta ‘nothing’	*purta* ‘come’	*wurta-n* ‘flow-PRES’

Alveolars /n, t, l, rr/

The alveolar series also contrasts nasals and stops, but distinguishes a lateral and tap as well. The tap does not occur word-initially (§2.2) and its point of contact may be alveolar or post-alveolar. Rhotic contrasts are shown with apical stops below and in §2.1.1.2.

/n/	/t/	/l/	/rr/
jina ‘foot’	*jita* ‘head pad’	*jila* ‘spring’	*jirral* ‘abduct’
nala ‘skin’	*tala* ‘gap between teeth’	*lala* ‘small pieces’	

Post-alveolars /rn, rt, rl, r/

Post-alveolar phonemes distinguish four types: nasal, stop, lateral, and retroflex glide.

/rn/	/rt/	/rl/	/r/
jarna 'piggyback'	*jartarra* 'already'	*jarla* 'excrement'	*jara* 'shield handle'
=ngarni 'we.PL.EX'	*-karti* 'to'	*karli* 'boomerang'	*kari* 'grog'

Lamino-palatals /ny, j, ly, y/

Four laminal contrasts also occur: nasal, stop, lateral and approximant. Like the rhotic /rr/, the lateral does not occur word-initially (§2.2).

/ny/	/j/	/ly/	/y/
jinya-n 'trim-PRES'	*yija-n* 'laugh-PRES'	*milya* 'nose'	*jiya-n* 'follow-PRES'
nyurra 'you all'	*jurra* 'ashes'		*yurra* 'night'

Lamino-palatals are often realised as lamino-alveolars making them difficult to differentiate from apicals at times, especially in word-final position.

Velars /ng, k, w/

Velar contrasts distinguish nasals, stops and glides.

/ng/	/k/	/w/
yunga 'give.PRES'	*yuka* 'grass'	*yuwa* 'give.IMP'
-ngarra 'about'	*-karra* 'manner suffix'	*warraka* 'boomerang'

Peripheral [-nasal] stops are found to alternate in words and sometimes lenite to a glide before a high vowel. At morpheme boundaries, these two stops are also subject to the insertion of an epenthetic /l/ by some speakers (§2.3.5).

marrpun ~ marrkun 'hunger'
tapurrtapurr ~ takurrtakurr 'corrugations'
kakurtu ~ kawurtu 'finish'
pirrpirripinti ~ wirrpirripinti 'butterfly'

Apicals in practice

The difference between the two apical series is often difficult to distinguish for English speakers. In addition, the difference is almost imperceptible in some speakers, who are also often inconsistent in their production of the sounds. Both retroflex and non-retroflex apicals are produced word-initially, but the phonemic contrast is neutralised (or at least no contrast has been attested, and the same speaker will use either on different occasions in the same word).[3] McKelson's work is characterised by its lack of retroflexes, partly due to inconsistent orthographic representations. My own work probably over-compensates.

Additional factors compound these difficulties. Firstly, an inter-vocalic apical stop is sometimes realised as a tap, something McKelson (1974:144) notes when describing alternative forms of imperfective *partinya**rr**i* and *partinya**rt**i* given by two different informants (*badinya**r**ina* and *badinya**rd**ina* in the original, the final *=na* being a pronominal clitic). This alternation is also noted for Jaru (Tsunoda 1981:31).

Secondly, the tap can be realised as a glide. However, meaningful contrasts between the two rhotics (tap and glide) and the two apical stops can be found:

/t/	/rt/	/rr/	/r/
kati- 'cut'	*-karti* 'to'	*karri* 'stand'	*kari* 'grog'
kuta 'naked'	*kurta-n* 'perish-PRES'	*kurra* 'firesaw'	*-kura* 'genitive'

The tap/trill and post-alveolar lateral (§2.1.1.2) can alternate with different speakers:

jurnpurl ~ jurnpurr 'ash'
jarrmatangka ~ jarlmatangka 'Jarlmadangah' (Mt. Anderson)
paparl ~ paparr 'mistake'

[3] A few words are consistently pronounced with an initial retroflex stop, *e.g. tarlu* 'shame' [ʈaɭu]. This may be explained by the fact that although no contrast is attested in Mangarla, apical contrasts do occur in other languages which share the item. For example, in Yawuru, *rdarlu* 'ashamed' contrasts with *darlu* 'mother-in-law' (Hosokawa 2011:85). Borrowing may account for such instances, but in some neighbouring languages, the contrast seems to be neutralised to the retroflex (Sharp 2004:41, Hudson 1978:5).

2.1.1.2 Contrasts by manner of articulation

Consonants can be contrasted according to the manner of their articulation with five distinctions: stops, nasals, laterals, glides and one tap.

Stops /p, t, rt, j, k/

Stops are distinguished in five places of articulation.

/p/	/t/	/rt/	/j/	/k/
jipi ‘man’	*piti* ‘create’	*pirti* ‘hole’	*piji* ‘throat’	*jikily* ‘Bauhinia sp.’
puju-n ‘fart’	*tuja* ‘out of tune’		*juju* ‘song’	*kujupura* ‘possessions’

Stops have both voiced and voiceless allophones and are generally unaspirated. Word-initially and inter-vocalically they tend to be voiced and word-finally, unreleased and released unvoiced stops alternate.

Lenition of the velar stop between vowels results in a velar fricative or approximant:

/*kakarra*/ [gakaɾʌ] ~ [gaɣaɾʌ] ‘east’
/*kakurtu*/ [kakəʈʊ] ~ [kawəʈʊ] ‘finish’

Nasals /m, n, rn, ny, ng/

Nasals are distinguished in the same five places of articulation as stops.

/m/	/n/	/rn/	/ny/	/ng/
nima ‘stick’	*pina* ‘hear’	*pirna* ‘grub’	*pinya* ‘hit.PST’	*pinga* ‘ant’
marla ‘assist’	*nala* ‘skin’		*nyala* ‘this here’	*ngala* ‘yawn’

Laterals /l, rl, ly/

Three laterals are distinguished: alveolar, post-alveolar and lamino-palatal. Only sub-minimal pairs contrasting /rl/ with /ly/ have been found.

/l/	/rl/	/ly/
ngalak ‘headache’	*jarla* ‘excrement’	*ngalyak* ‘shingleback skink’
mul ‘mound’	*murl* ‘almost’	*wuly* ‘wet’

Rhotics

Two rhotic sounds occur, the glide /r/ and the tap /rr/. The tap may be either alveolar or post-alveolar and can be voiced or unvoiced. It is often realised as a trill, especially in careful speech, and is sometimes fricativised, especially word-finally.

/*purturr*/ [pʊʈʊr] ~ [pʊʈʊɽ] ‘middle’

Intervocalically, it is sometimes weakened to a frictionless continuant.

/*kankarra*/ [kankaɾʌ] ~ [kankaɻʌ] ‘above’
/*patkurru*/ [badgʊɾʊ] ~ [badgʊɻʊ] ‘kangaroo sp.’

The retroflex glide is often palatalised when adjacent to a high vowel:

/*mira*/ [miɻʌ] ~ [mijɻʌ] ‘hip’
/*rirra*/ [ɻiɾʌ] ~ [jɻiɾʌ] ~ [jiɾʌ][4] ‘mouth’

However, the two rhotics can be phonemically differentiated with the tap following the pattern of the palatal lateral both phonotactically (§2.2) and morphophonemically (§2.3), while the glide is consistent with the approximants. Both are contrasted below.

Approximants/ tap /w, y, r/ /rr/

The retroflex continuant /r/ is classified as a glide because it occurs in the same environments as other glides (§2.2). The apical tap /rr/ has a different distribution and despite its occasional realisation as a frictionless continuant, is found in contrast to /r/.

/y/	/w/	/r/	/rr/
kayaru ‘European’	*kawa* ‘bring.IMP’	*kara* ‘west’	*-karra* ‘MANner’
yu-ngku ‘give-FUT’	*wungku* ‘windbreak’	*rung-ku-n* ‘bark-AUX-PRES’	

[4] The word *yirra* means ‘mouth’ in neighbouring Wangkajunga (Jones 2011).

Glides /y/ and /w/ which precede a high vowel with the same quality (*i.e.* front or back respectively) may be phonetically unrealised or realised as a long vowel. However, as they can be articulated, and as no words start with the central vowel /a/, they are written as phonemically present. Inter-vocal glides are generally realised as diphthongs.

/*mayi*/	[maji] ~ [mai] ‘food’	/*jawuna*/	[ɟɑwunʌ] ~ [ɟaunʌ] ‘swim.PST’
/*yini*/	[jini] ~ [iːni] ~ [ini] ‘name’	/*wulu*/	[wʊlʊ] ~ [ʊːlʊ] ~ [ʊlʊ] ‘father’

2.1.2 Vowels

Three vowels contrast in backness and height, with two high vowels, one back /u/ and one front /i/ and one central low vowel /a/.

Table 2.2 Vowels

	Front		Back
High	i		u
Low		a	

Phonemic contrasts between the three vowels are seen in the following sets.

/i/	/a/	/u/
mirta ‘tree sp.’	*-marta* ‘comparative’	*murta* ‘nothing’
kari ‘grog’	*kara* ‘west’	*karu* ‘type of spear’

Pronounciation of all three vowels shows considerable variation and is coloured by adjacent consonants. In unstressed syllables, all three can be centred to a neutral [ə].

Long vowels are not contrastive in Mangarla. While phonetically long vowels are produced, they are infrequent and only in particular contexts. An excellent discussion of alternative methods to handle the occurrence of long vowels in a similar language is given in Tsunoda (1981:32-35).

The most common context in Mangarla for a long vowel to be produced is in the first (stressed) syllable of a word, or in single (open) syllable words *e.g. ra* [ɻaː] ‘spread out’, *yu* [jɔː] ‘yes!’ Other words pronounced with long vowels can usually be treated as having an adjacent approximant, either word-initially as shown previously, or inter-vocalically.

This is subject to lenition resulting in vowel lengthening, which can also occur across morpheme boundaries (§2.3.2).

luwurn	[lɔ:ɳ]	‘kingfisher sp.’
Ngiyingiyi	[ŋi:ŋi:]	‘Mowla Bluff’
warirr	[wæ:ɾ]	‘ant sp.’

The most difficult to reconcile is the occasional long central vowel although this is not contrastive. It tends to occur before a homophonous vowel in the next syllable where there is also a tendency to lengthen non-central vowels.[5]

laja	[laɟa] ~ [la:ɟa]	‘summer’
kampaja	[gambaɟa] ~ [gamba:ɟa]	‘mother’
wulu	[ʊlʊ] ~ [ʊ:lʊ]	‘father’
yini	[inɪ] ~ [i:nɪ]	‘name’

Often long vowels occur in loanwords or onomatopoeic words in an effort to reproduce the sound of the original. Loanwords in this category are written with a double vowel in accordance with the orthographic conventions of surrounding languages, such as Walmajarri, most of which have contrastive long vowels.

maaja (E)		‘boss’ (‘master’)
kuul (E)		‘school’
karnka	[kaŋga] ~ [ka:ŋga]	‘crow sp.’
nguru	[ŋʊɻu] ~ [ŋʊ:ɻu]	‘howl’

Vowel lengthening also occurs across some morpheme boundaries (§2.3.2) and word-finally for emphasis, especially with interjections or in narratives to emphasise time or distance (§13).

2.2 Phonotactics

The minimal word in Mangarla consists of one syllable, but most words contain two or more. Single syllable words contain two morae and mostly belong to the preverb or

[5] Unlike /a/, non-central vowels only seem to lengthen before sonorants.

particle word classes. Syllable structure can be open - CV (*e.g. ka+ju* 'steel.axe'); or closed - CVC (*e.g. ngam+purr* 'care') or, less commonly, CVCC (*e.g. tarrp* 'gone forever'). Consonant clusters are examined in §2.2.3. Primary stress falls on the first syllable of a word.

2.2.1 Word-initial consonants

Words begin with consonants, although the contrast between the alveolar and post-alveolar sounds is neutralised in word-initial position and the tap and laminal lateral consonants are not found at the start of an utterance. Words do not begin phonemically with vowels (see 'approximants' in §2.1.1.2) or with consonant clusters (but see §2.2.3).

Table 2.3 Word-initial consonants

t/rt		j	k	p
n/rn		ny	ng	m
l/rl		ly		
	r	y		w
rr				

2.2.2 Word-final consonants

Unlike many Western Desert languages, Mangarla allows words to end in stops. Approximants are never found word-finally and peripheral nasals are marginal occurrences. In most cases, these are preverbs (§7) which never occur in isolation, many also found in Nyulnyulan languages (Hosokawa 2011, Stokes 1982). *Rang* 'breath', *nam* 'shut' and *nyim~nyim* 'pulse' are attested in McKelson (1974). I have recorded personal names and *mam*, short for *mama* 'kiddo', a slang term of address.

Table 2.4 Word-final consonants

t	rt	j	k	p
n	rn	ny	ng	m
l	rl	ly		
	r	y		w
rr				

2.2.3 Consonant clusters

Homorganic and heterorganic consonant clusters occur word medially. Intra-morphemic clusters are more restricted than those formed on morpheme boundaries. The only word-final cluster consists of the tap /rr/ and the bilabial stop /p/ as in *wurrp* 'setting of sun'. As the second member of a cluster, apical stops occur only in homorganic clusters. As no contrasts are attested between /rnt/ and /rnrt/ (and potentially /rlt/ and /rlrt/), they are written showing the post-alveolar quality only once, on the first of the cluster, in line with orthographic convention. Thus, /rnrt/ is written /rnt/, /rlrt/ is written /rlt/, *etc*.

Intra-morphemic clusters consist of only two consonants. The first is a nasal, lateral or trill and the second is a stop, nasal, or the approximant /w/ which only follows liquids. Table 2.5 gives examples of words with the consonant clusters found. The first member is given in the vertical column and the second in the horizontal row.

Table 2.5 Word medial consonant clusters

C2 / C1	p	t	rt	j	k	m	ny	ng	w
m	*yu**mp**aly* 'dislike'								
n	*yi**np**an* 'sings'	*ka**nt**in* 'hits'		*pa**nj**urn* 'wood'	*ka**nk**a* 'up'	*ku**nm**in* 'tree hollow'		*ma**nng**a* 'fat'	
rn	*ma**rnp**a* 'close'		*ka**rnt**i* 'climb'	*wa**rnj**i* 'alive'	*ku**rnk**a* 'ripe'			*pa**rnng**apirl* 'bark from tree sp.'	
ny	*nga**nyp**i* 'cradles'			*wa**nyj**u* 'one'	*li**nyk**urra* 'crocodile'				
ng					*pu**ngk**a* 'falls'				
l	*yu**lp**urru* 'early'	*nyal**t**u* 'this'		*wa**lj**a* 'spill'	*la**lk**a* 'dry'	*pa**lm**a* 'creek'	*mu**lny**i* 'soil'	*ji**lng**arra* 'lame'	*ja**lw**al* 'cousin'
rl	*wa**rlp**arni* 'to here'				*pu**rlk**a* 'big'	*ku**rlm**irri* 'roll up'		*ka**rlng**uny* 'armpit'	
ly	*pi**lyp**urr* 'red ochre'			*mu**lyj**i* 'Bauhinia flower'	*ngu**lyk**u* 'beard'				
rr	*ngu**rrp**a* 'ignorant'			*wi**rrj**an* 'puts'	*pu**rrk**u* 'old man'	*pu**rrm**a* 'belly'		*ma**rrng**a* 'chest'	*ka**rrw**a* 'dry'

The unusual cluster in the personal name *Ngu**jp**an* is not found elsewhere. Other apparent exceptions can be explained as originally having an inter-morphemic boundary (*e.g.* *patkurru* [*pat-kurru* 'thump-er'] 'kangaroo' or reduplicated stems). Word-initial 'clusters' can result phonetically from vowel reduction before a liquid.

Kiringkiring	[kriŋgriŋ]	'placename'
kilingkiling	[gliŋgliŋ]	'galah'
tururu	[truru]	'crack open'

Inter-morphemic clusters, including reduplications, can hypothetically begin with any of the permissable word-final consonants, including stops, and sometimes consist of three consonants. In practice, however, many possible combinations are avoided by using epenthetic elements, or allomorphs of the suffixes which might otherwise produce them. Some inter-morphemic clusters which are unattested intra-morphemically are given below. A stop is never followed by a lateral but may be followed by an approximant, as in the final two examples.

/rrpt/	*ti**rrp~t**irrp*	etched.line~RDP 'message stick'
/rrpj/	*ru**rrp-ja***	reply-LOC 'in exchange'
/rrrn/	*jura**rr=rn**a*	sea=1SG.S
/mj/	*na**m-j**arri*	shut-INCH.PRES 'closes'
/pj/	*ja**p~j**ap*	itchy~RDP
/png/	*ya**p=ng**arni*	leave.behind=1PL.EX.S 'we took off'
/tp/	*nyarrapa**t~p**at*	crested pigeon~RDP
/tj/	*ji**t~j**it*	tip~RDP 'tiptoe'
/tk/	*wi**t-k**arti-ya*	distant-ALL-EP 'to a distant place'
/jp/	*puti**j~p**utij*	smoke~RDP 'smoke signal'
/jk/	*waka**j-k**uyarra*	complete-every 'the whole lot'
/jng/	*waka**j=ng**arni*	complete=1PL.EX.S 'all of us'
/kj/	*warru**k-j**u*	fast-ERG 'do quickly'
/lyt/	*ta**ly~t**aly*	chew~RDP 'split into parts, chew'
/lyw/	*wu**ly~w**uly*	wet~RDP
/nng/	*nguwi-**n=ng**arni*	return-PRES=1PL.EX.S 'they and I return'
/nym/	*yurrany~yurra**ny-m**arta*	sunrise~RDP-CPR 'just before sunrise'
/nyng/	*jita**ny-ng**u-ju*	seated-ABL-ERG 'do while seated'

/rlrt/	*mangu**rl-t**artu*	spear-COM ‘with a spear’
/rnn/	*panju**rn=n**a*	wood=3SG.S
/rnw/	*panju**rn=w**un*	wood=WELL ‘the very tree’
/ngr/ /ngj/	*ra**ng~ra**ng-j**u-n*	breath-AUX-PRES ‘pants’

2.3 Morphophonemics

McKelson (p.c. 1993) commented on his difficulty in learning Mangarla due to the many morphophonemic changes he refers to as ‘euphony’. Many phonologically conditioned processes are more prominent in particular word classes; some are optional, while others interact in complex ways. With more than one strategy available to speakers in a particular conditioning environment, other processes are fed or blocked, resulting in unexpected allomorphy. The general processes described here are often applied differently by individual speakers. Variations in pronominal clitic combinations are particularly complex and are described in §6.1.2.

This section examines general morphophonemic processes which apply across multiple word classes including place assimilation (§2.3.1), vowel lengthening (§2.3.2), diphthongisation (§2.3.3), vowel assimilation (§2.3.4), epenthesis (§2.3.5) and elision (§2.3.6). In §2.3.7 I show how these interact to create the allophones of nominal suffixes.

2.3.1 Place assimilation

Several nominal suffixes undergo assimilation of an initial palatal stop after a consonant which is [+apical, -rhotic].

C[+palatal +stop] > C[+apical +stop] / C[+apical, -rhotic] + ___

This results in allomorphic variation of ERGative, LOCative, COMitative, SOURCE and INCHoative suffixes.

warruk-ju	‘fast-ERG’	*murrkun-tu*	three-ERG
rurrp-ja	‘exchange-LOC’	*mil-ta*	eye-LOC
kaniny-jartu	‘below-COM (‘inside’)’	*panjurn-tartu*	tree-COM
kunurr-jangka	‘anthill-SRC’	*yarrkal-tangka*	hunting-SRC
nam-jarri	‘close-INCH’	*parrirl-tarri*	alert-INCH

Assimilation of an alveolar nasal to bilabial occurs before a bilabial stop /p/.

n > m / ___ C[+bilabial]

The pronominal clitic *=mpala* 2DU.S is understood to historically consist of second person *=n*, and dual number *=pala* clitics, and is sometimes still realised as *=npala*.

2.3.2 Vowel lengthening

Vowel lengthening can occur at a morpheme boundary where a segment has been elided (§2.3.6). This typically involves a glide and is most commonly heard when the source suffix is added to a demonstrative, but is also heard in contexts where a syllable has been elided.

pant(u-y)angka	[bandaŋga] ~ [banda:ŋga]	MED-SRC	'after that'
wajarr(i-y)iti	[waɟaridi] ~ [waɟari:di]	NEG-CHAR	'naysayer/abstainer'
kampa(ja)-ja	[gambaɟaɟa] ~ [gamba:ɟa]	mother-LOC	'with mother'

There is also a tendency to lengthen a final high front vowel /i/ which follows a peripheral glide and precedes a suffix commencing with an alveolar nasal.

nguwi-nku	[ŋwi:ngu]	return-FUT
kuwi=na	[gwi:na]	meat=3SG.S

2.3.3 Diphthongisation

Inter-vocalic glides diphthongise following [-back] vowels inter-morphemically as well as intra-morphemically (§2.1.1.2). The *=yi* 'PLural Subject' clitic on imperatives, or *-ayi* 'Non-Past IRRealis' suffix are realised as diphthongs [ei] or [ai], as are many words formed after glide insertion (§2.3.5), such as in certain pronominal clitics. The conditions which motivate the phonetic form are unknown, although [ei] occurs more frequently word-finally.

parti=yi	[paɖei]	go.IMP=PLS	'Go, you lot!'
kawurturra=yi	[gauɖəɾei]	finish.IMP-PLS	'Be quiet everyone!'
wanti-ayi	[wandei]	stay.IMP-NPIRR	'could stay'
waji-marra-ayi	[waɟɪmaɾei]	keep-AUX.IMP-NPIRR	'could keep'
nga=pala-y=iny	[ŋapalaiɲ]	CAT=3DU.S-EP=3PL.O	'those two do it to them'

2.3.4 Vowel assimilation

Vowel assimilation mostly affects bound pronominal clitics (BPs) and a few verb stems.[6] Its application in Mangarla is inconsistent. Speaker variation may be due to younger speakers not applying it or to the application of other phonological processes. Optional epenthetic elements (§2.3.5) feed or block many processes increasing allomorphy, particularly in BP combinations, as described in §6.1.2.1.

Progressive vowel harmony affects object and oblique clitics of first and second person singular and reflexive/reciprocal clitics (RR). The low vowel in these clitics optionally becomes [+high, +front] after a clitic which ends in a high front vowel. The oblique RR clitic is the only one which contains more than one syllable and the assimilation continues rightward affecting both vowels (final example). Only two clitics contain the final [+high] vowel which triggers the assimilation in an adjacent syllable, *=ngarni* '1PL.EX.S' and *=ni* '3PL.S'.

ni=nya	3PL.S=1SG.O	>	*ni=nyi*
ni=ja	3PL.S=1SG.OBL	>	*ni=ji*
ni=na	3PL.S=2SG.O	>	*ni=ni*
ni=ngka	3PL.S=2SG.OBL	>	*ni=ngki*
ni=rna	3PL.S=RR	>	*ni=rni*
ngarni=rna	1PL.EX.S=RR	>	*ngarni=rni*
ngarni=rnangka	1PL.S=RR.OBL	>	*ngarni=rningki*

Consonant induced regressive vowel assimilation occurs when a morpheme-initial palatal consonant triggers the fronting of a stem-final high back vowel /u/. This affects verbs from the *-wa* conjugation with *-nya* past tense inflection. Although only two verbs are affected, both act as auxiliaries in many complex verbs. Nominals can also be affected after palatal glide insertion (§2.3.5) with number suffixes (*-y-arra* 'dual' and *-y-arti* 'plural') or the epenthetic element *-ya*.

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[6] Occasionally other word classes are affected indicating that this may have been more widespread in the past, as it is in Nyangumarta (Sharp 2004). Frozen forms such as *rirringki* 'riverbank' may be historically *rirr-i-ngka* 'side-EP-LOC'.

yu-nya	give-pst	>	*yinya*	‘gave’
pu-nya	hit-PST	>	*pinya*	‘hit, killed’
kartu-y-arti	child-EP-PL	>	*kartiyarti*	‘children’
wipirti-marta-ju-ya	small-CPR-ERG-EP	>	*wipirtimartajiya*	‘smaller ones’

Other examples involve pronominal clitics and an imperative verbs from the *-wa* conjugation. The exact mechanism of vowel assimilation in these is uncertain, as the clitic in the final example below is not consistently affected in this context and no obvious [+front] segment is involved in the verbs (the epenthetic *-ya* (§2.3.5) on examples below is assumed to be added after the process has occurred). As they all involve imperatives, it is possible that they are impacted by a plural subject *=yi*, which is not identified overtly in translations.

parnta-pu-wa	break-AUX.IMP	>	*parnta-pi*	‘Break it’
mil-ka-wa-ya	eye-AUX-IMP-EP	>	*mil-kiya*	‘Look!’
yu-wa=nya-ya	give-IMP=1SG.O-EP	>	*yuwanyiya*	‘Give me!’

2.3.5 Epenthesis

Epenthetic elements are ubiquitous. Many are idiosyncratic and so not all are given here. The most common are used to break up unacceptable consonant and vowel clusters. The epenthetic element may be a vowel, glide, consonant, or syllable.

Consonant insertion

$$\emptyset \rightarrow l \,/\, \begin{matrix} V + __\ k \\ V + __\ p \end{matrix}$$

An optional /l/ is inserted between before morphemes which commence with a peripheral consonant [+stop, -nasal]. This sometimes occurs with -rra class verbs which belong to the L conjugation in other Marrngu languages (absent in Mangarla), and occurs before several different nominal suffixes.

yinpa-l-karra	sing-EP-MAN	‘while singing’
ngapa-l-karra	water-EP-MAN	‘wet season’
juju-l-karti	song-EP-ALL	‘to the ceremony’
kurntu-l-pa	carry.on.shoulder-EP-and	‘and on the shoulder’

Most speakers use it with both verbs and nominals, even after a word break.

2.1 *Mangarla-artu-arti nga=ngarni juju l-parti-nya*
Mangarla-COM-PL CAT=1PL.EX.S song EP-go-PST
'We were all Mangarla people going to a ceremony.' (1R25)

2.2 *jani-ma-nku l-panartu*
cook-AUX-FUT EP-MED
'(I will cook that one.' (HTD48)

This process potentially explains allomorphic variation of some clitics notably *=(l)pa(rri/rra)* 'ASSERTion' and *ningarra=(l)kurtiny* 'impossible' (§3.5).

Certain speakers also prenasalise some consonants, mostly the peripheral stops and glide. This too may occur after a word break (final example), but is omitted in elicitations.

yurrany~yurrany-ja-n-marta	sunrise~RDP-LOC-EP-CPR	'just before sunrise'
janturla-ng-karra	carry.on.side-EP-MAN	'carried in arm/on hip'
kurrkayinu-ng-karra-ka-nya	rise-INF-EP-MAN-AUX-PST	'went on moving on'
mili~mili-ja ng-wirrja-nku	paper-RDP-LOC EP-put-FUT	'will put on paper'

Vowel insertion

Ø → V[+high, +front] / C + __ C [+velar]

Optional insertion of a transitional vowel occurs between inter-morphemic consonant clusters. The majority of examples occur before a suffix beginning with /k/, notably the auxiliary verb *ka-n* used with nominals and preverbs. A similar rule occurs in Walmajarri (Hudson 1978:16), but in Mangarla, the manner suffix also invokes the rule. The motivation for this is unknown since all the consonant clusters produced are permissable, both intra- and inter-morphemically and similar combinations occur without the epenthetic vowel. Spectographic analysis may identify if this element is a true vowel.

wakaj-i-ka-n	finish-EP-AUX-PRES	'completes'
murrkun-i-ka-n	three-EP-AUX-PRES	'makes three'
ngampurr-i-ka-n	care-EP-AUX-PRES	'carefully'
jarrjarr-i-karra	stealthy-EP-MAN	'stealthily'

Glide insertion

Ø → y / V[+high] + __ V[-high]
/ V[-high] + __ V[+high]

A palatal glide is inserted in transition between a high and low vowel (or low and high). This results in allomorphic variation of nominal suffixes beginning with /a/, such as source, comitative, inchoative and number suffixes. In some of these, the rule is sensitive to the number of syllables in the stem and the feature [±front] of its final vowel (§2.3.7).

kurrpiji-y-arti	tree-EP-PL	'trees'
kartu-y-angka	child-EP-SRC	'from childhood'
jipi-y-arri	man-EP-INCH	'become a man'
warnku-y-artu	stone-EP-COM	'with a stone'

Glides are also inserted between certain bound pronoun combinations involving the third person plural non-subject pronouns *=iny/=inya/=inyala*. The sequence */ayi/* is then diphthongised (§2.3.3).

pala-y=iny-ya	[palaiɲʌ]	3DU.S-EP=3PL.O-EP
nga-y=inyala	[ŋaiɲala]	CAT.3SG.S-EP=3PL.OBL

Syllable insertion

Ø → nga

Of the two epenthetic syllables used in Mangarla, the most common is ***-nga***. It is proposed that its initial use was phonologically motivated, to prevent unacceptable consonant clusters, such as when an apical nasal, lateral or palatal approximant would otherwise be the second member of a consonant cluster. Most commonly, but not only, this involves the BP complex with a second person singular subject clitic.

=n-nga=rnangka	=2SG.S-EP=RROBL	'you do it for yourself'
=n-nga=yarrany	=2SG.S-EP=1DU.EX.O	'you do it to me and her'
=n-nga=la	=2SG.S-EP=3SG.OBL	'you do it for him'
kaniny-nga=lpiny	below-EP-first	'in the lower country first'

Nga insertion operating across word boundaries (2.3-4) has led to its use as the catalyst base for pronominal clitics (§6.3.2), even where the conditioning factors are no longer required (2.5-6). A similar process has occurred in some Ngumpin languages with *-pa* (McConvell 1996:305-306).

2.3 *wirirl nga=na wanti warnku-ngka*
king.brown.snake CAT=3SG.S be.PRES stone-LOC
'The king brown is on the rock.' (PSan46)

2.4 *parnti-ma-n nga=na ngapa*
smell-AUX-PRES CAT=3SG.S water
'He smells the water.' (PSan6alt)

2.5 *kamurra nga=n-nga=rna jala-nya-nya*
uncertain CAT=2SG.S-EP=RR neglect-AUX-PST
'Maybe you left yourself unguarded.' (FK98)

2.6 *panartaru, nga=ni pina-ma-n-nga*
MED.PL.ERG CAT=3PL.S understand-AUX-PRES-EP
'They understand it.' (1D28)

Nga is used twice in (2.5-6) and the two uses are differentiated; *nga=* is referred to as 'catalyst' when functioning as the first element of the BP complex, while in other positions, *-nga* is phonologically motivated epenthesis or accretion (see also §6.1.2). Not only is it used to split potential consonant clusters (2.5), but it is optionally added to word-final apical nasals (2.6-8). Mostly, these are non-syllabic morphemes, particularly the *-rra* class present tense morpheme and the second person singular subject clitic. In such cases, the motivating factor for its use may be prosody. However, in the absence of a detailed prosodic analysis, this remains speculation.

2.7 *yu-ngarrinya=n(-nga)*
give-NARPST=2SG.S(-EP)
'You gave it to him.' (2sen106(107))

2.8 *jani-ma-nku=ja=n-nga mangarri*
cook-AUX-FUT=1SG.OBL=2SG.S-EP veg.food
'Will you cook some food for me?' (A6)

In another unrelated use, some speakers also use *-nga-* before the source suffix *-angka*, possibly to differentiate it from the locative *-ngka* used with two syllable words (*cf. panta-ngka* [MED-LOC] and *pant(a)-angka* [MED-SRC]). The epenthetic element is optional and the word can also occur without it, alternating with vowel lengthening and final vowel deletion strategies, resulting in several allomorphs of the sentence connectors where the source suffix is added to a demonstrative (final two examples).

kurlila-nga-angka-ju	south-EP-SRC-ERG	'those from the south'
jarni-nga-angka	where-EP-SRC	'where from?'
pantu-nga-angka-ju	MED-EP-SRC-?TOP	'after that'
panaru-nga-angka-ju	MED-EP-SRC-?TOP	'after that'

The syllable ***-ya*** is commonly added to the end of words of all classes including case markers and is particularly common on pronominal clitics (§6) and imperative verbs. It generally follows an element which is [+high], and its use is fed by progressive vowel assimilation, as in *=ninyiya* below.[7] In turn, its use feeds regressive vowel assimilation, particularly in /u/ final words (§2.3.4).

Ø → ya / V[+high] + __
/ ny + __

rantangka-pirri-ya	outside-PURP-EP		
kurnti-ya	eat.IMP-EP		
=ngarni-ya=rna	1PL.EX.S-EP=RR		
=ni-ya	3PL.S-EP		
nga=la=palany-ya	CAT=1DU.IN.S=3DU.O-EP		
=ni=nya-ya	3PL.S=1SG.O-EP	>	*=ninyiya*
pantangkaju-ya	after.that-EP	>	*pantangkajiya*
Mangarla-ju-ya	Mangarla-ERG-EP	>	*Mangarlajiya*

[7] This element is so widespread, a detailed analysis may discover it has role as a discourse marker or other meaning. Its use with bound pronouns however, seems inconsistent with this. Its similarity to accusative case and plural markers in neighbouring languages is discussed in §6.1.1.1 and §6.1.2.1. However, as shown here, its use in Mangarla is not restricted according to word class or context apart from the phonological conditioning described here.

Finally, the epenthetic syllable ***-pa*** is found on a few stems which also occur without it. The common association between the ear and the seat of knowledge (*e.g.* Evans and Wilkins 2000) is reflected in the pair or words *nila* 'clever, knowing' and *nilapa* 'ear', while the stem *larr* 'split' occurs augmented when it is inflected with nominal suffixes, but not when functioning as a preverb (final example).

$$\emptyset \rightarrow pa \;/\; \begin{matrix} C + __ \\ /V\ \#\ __ \end{matrix}$$

larr-pa-artu	split-EP-COM	'with a split'
larr-pa-ngku	split-EP-ERG	'using a split one'
larr-pu-ngu	split-AUX-INF	'to split' not **larr-pa-pungu*

It is also found as an augment in the medial demonstrative of the southern *panpartu-panpartu* dialect (§5.3.4). While widely used in languages to the south and east as an augment to consonant-final stems or as a juncture syllable (Hansen and Hansen 1978, Eckert and Hudson 1988, Burridge 1996, Jones 2011), its use in Mangarla, which allows consonant-final words, is not systematic, and it is found on vowel-final words as a general nominal augment, where its translation as the homophonous conjunction 'and' or the ASSERTive clitic *=(l)pa* seems inappropriate. Further research may discover a discourse function in Mangarla, as in Wangkajunga where Jones (2011) notes that, in addition to its use as phonological augment, it also occurs at the end of a clause as an emphatic device.

nyuntu-kura-angka-pa	you.SG-GEN-SRC-EP	'from yours'
kurturtu-pa	stomach-EP	'feelings/stomach'
wanyju-pa	one-EP	'one'

2.3.6 Elision

Elision occurs primarily to shorten words and facilitate fast speech. It generally occurs in a limited range of contexts where the original morpheme is recoverable.

Geminate reduction

When the addition of a bound morpheme results in consonant gemination, one of the pair is deleted. This mostly occurs with verbal auxiliaries added to consonant-final preverbs:

witij-jurra	dig-AUX.IMP	>	*witijurra*	'Dig it!'
muk-kurra	club-AUX.IMP	>	*mukurra*	'Hit it!'
pap-purra	forget-AUX.IMP	>	*papurra*	'Forget about it!'

Vowel reduction

Vowel reduction is triggered in several environments. Intra-morphemic vowel reduction is shown in §2.2.3. Inter-morphemically, the first of two adjacent vowels is deleted, particularly when vowels on either side of the morpheme boundary are identical. This applies most commonly to a stem-final /a/ with nominal suffixes beginning with /a/ (§2.3.7) but is also common with pronominal clitic combinations in which the second member commences with /i/. However, vowels with different features can also be affected. An alternative analysis involving glide insertion followed by segment deletion is described below for instances where a stem-final vowel is high.

V → Ø / __ + V

nyala-artu	prox-COM	>	*nyalartu*	'this one'
ngana-artu	what-COM	>	*nganartu*	'what, which one'
wurna-angka	move.off-SRC	>	*wurnangka*	'from walking'
ngarni=inya	=1PL.EX.S=3PL.O	>	*=ngarniny*	'we do it for them'
=la=iny	=1DU.IN.S=3PL.O	>	*=liny*	'you and I do it to them'
=rna=iny	=1SG.S=3PL.O	>	*=rniny*	'I do it for them'
=npala=inya	=2DU.S=3PL.OBL	>	*=npalinya*	'you two do it for them'

Other morphophonemic processes can feed or block the the vowel deletion process. For example, the insertion of epenthetic syllable *-nga-* (§2.3.5) feeds the process.

panaru-nga-angkaju	MED-EP-SRC.?TOP	>	*panarungangkaju*	'after that'
jarni-nga-angka	where-EP-SRC	>	*jarningangka*	'where from?'

Other strategies permissable in the same conditioning environment block vowel reduction. Glide insertion (§2.3.5) competes with vowel reduction and is preferred in many contexts, particularly in the BP complex which exhibits a great deal of variation (§6.1.2).

=pala=inya	3DU.S=3PL.OBL	>	*palinya*	(vowel reduction)
=pala-y=inya	3DU.S-EP=3PL.OBL	>	*palayinya*	(glide insert^{n} + diphthongis^{n})

Vowel + Glide segment deletion

A segment involving a [+high] vowel followed by a suffix-initial glide may be deleted on a morpheme boundary.

V[+high] + G → Ø

The regular imperative for simple verbs of the *-wa* class is abbreviated when these verbs function as the auxiliary in complex verbs. Most delete /u/+/w/.

pu-wa	hit-IMP	*mininy-pu-wa*	word-AUX.IMP	>	*mininy-pa*	'speak!'
		yaji-pu-wa	wait-AUX.IMP	>	*yaji-pa*	'wait!'

This process affects nominal suffixes beginning with the palatal glide including those formed by glide insertion (§2.3.5), such as number, comitative, source and inchoative. In most cases, this operation is optional, and is sometimes sensitive to the number of syllables in the stem. Most speakers restrict its application to stems ending in high back vowel while for others, a high front vowel is also affected. It can feed other rules such as vowel lengthening (§2.3.2) or place assimilation (§2.3.1, §2.3.7).

wajarri-yiti	NEG-CHAR	>	*wajarriti*	'abstainer'
kurtiji-yarri	swift-INCH	>	*kurtijarri*	'run'
yini-kurrji-yarti	name-BEL-PL	>	*yinikurrjarti*	'names belonging to'
yulpurru-yartu	early-COM	>	*yulpurrartu*	'earlier'
ngulartu-yangka	finish-SRC	>	*ngulartangka*	'once that's over'
pantu-yarti	MED-PL	>	*pantarti*	'those'
ngayu-yartu	I-COM	>	*ngayartu*	'with me'

This rule is blocked when a non-palatal glide occurs in the preceding syllable.

minyawu-yangka	cat-SRC	'because of the cat'	**minyawangka*
mayaru-yarti	house-PL	'houses'	**mayararti*

Elision of syllables

Syllables are often elided on morpheme boundaries, especially with frequently occurring multi-syllabic words, and particularly, but not only, in fast speech. Demonstratives and the narrative past tense show regular abbreviation of longer forms (although this is not technically morphologically motivated). The post-alveolar stops in longer demonstrative forms lose their retroflex quality as they assimilate to the consonant they follow in the shortened form. Elision in these contexts is optional, with longer forms occurring as allomorphs alongside the shorter ones.

nyalartu	PROX	>	*nyaltu*	'this here'
panartu	MED	>	*pantu*	'that there'
yakarnartu	thus	>	*yakarntu*	'thus'
wani-nyarrinya	be-NARPST	>	*waninyinya*	'used to be/stay'
waji-ma-narrinya	keep-AUX.NARPST	>	*waji-maninya*	'used to keep'

One type of syllable deletion occurs when the ergative and locative markers attach to plural nominals and when these and other case markers attach to longer form demonstratives. The sequence /rtV/ becomes a rhotic glide /r/ and the initial consonant of the adjoining suffix is deleted.

$$rtV_x + CV_y \rightarrow rV_y$$

This interacts with several other morphophonemic processes. In the next examples, the plural plus ergative combination *-(y)arti-ju* is shortened to *-(y)aru,* and the plural plus locative *-(y)arti-ja* becomes *-(y)ara*. In the second example, stem-final vowel reduction also occurs, and in the third, u+y segment deletion also occurs. This is blocked in the fourth by the rhotic present in the stem.

pani-yarti-ju	s/he-PL-ERG	>	*paniyaru*	'they do it'
ngijakura-arti-ju	I.GEN-PL-ERG	>	*ngijakuraru*	'those belonging to me'
ngarrungu-yarti-ju	person-PL-ERG	>	*ngarrungaru*	'people do it'
mayaru-yarti-ja	house-PL-LOC	>	*mayaruyara*	'in houses'
kulpi-yarti-ja	bowl-PL-LOC	>	*kulpiyara*	'in bowls'

This rule does not affect general nominals inflected with the comitative but is usual with long demonstrative forms that consist of a basic stem and a historical comitative suffix,

which is now unanalysable as separate (§5.3.4.2). The erstwhile comitative plus ergative *-artu-ju* is shortened to *-aru*, in these, while the locative forms *-artu-ja* become *-ara*. Other case suffixes also seem to trigger the rule with demonstratives. Examples below include the ablative and the comitative.

panartu-ju	MED-ERG	>	*panaru(ju)*[8]	'that one does it'
panartu-ngu	MED-ABL	>	*panaru(ngu)*	'from that'
panartu-ja	MED-LOC	>	*panara(ja)*	'at that there'
panartu-yartu	MED-COM	>	*panarartu*	'with that one there'

Neighbouring Walmajarri has a similar rule where the sequence /rti/ becomes a semivowel when followed by /rl/, which includes the ergative, *-rlu* and locative *-rla*. The semivowel is /w/ before *-rlu*, or /y/ before *-rla*. This rule particularly affects demonstratives, so *nyanarti-rlu* 'becomes *nyanawu-rlu* 'that-ERG' while *minyarti-rla* becomes *minyayi-rla* 'this-LOC' (Hudson 1978:15). While the phonemic factors differ in Mangarla, the correspondence between the grammatical categories of affected elements is intriguingly similar.

2.3.7 Conditioning factors, rule interactions and competing strategies

Several nominal inflections have complex allomorphy which differentiates between consonant-final and vowel-final stems and can also be sensitive to the number of syllables in the latter. Allophonic variation can also result from optional rules. This section examines the interactions between the processes described in previous sections for nominal suffixes. Similar processes are particularly common in the bound pronoun complex (§6.1.2.1).

Consonant alternations occur with the ergative and locative suffixes which are sensitive to the final phoneme of the stem to which they attach and to the number of syllables in vowel-final stems. As in many Pama-Nyungan languages (Blake 1977, Dixon 1980), the two forms vary only by the final vowel which is /u/ in the ergative (§4.3.2) and /a/ in the

[8] The bracketed case markers are an optional remarking of the suffix. It may be used to differentiate forms which are homophonous after the rule is applied. For example, the ergative and ablative stems are identical after the deletion of the suffix-initial consonant. Further discussion of these forms is given in §5.3.4.3.

locative (§4.3.4). Consonant-final stems also take *-ju/-ja* which undergoes place assimilation (§2.3.1), as shown in Table 2.6.

Table 2.6 Ergative and locative suffixes

	vowel-final stem		consonant-final stem	
syllables	< 3 $	> 2$	[-apical] or [+rhotic]	[+apical, -rhotic]
ergative	*-ngku*	*-ju*	*-ju*	*-tu*
locative	*-ngka*	*-ja*	*-ja*	*-ta*

Jones (2011:41-42) notes that the apical forms do not occur on Wangkajunga words but are used on introduced words interchangeably with the palatal form. Mangarla speakers have also been heard to alternate forms on consonant-final stems, for no apparent reason, using the apical form on non-apical-final stems and the palatal allomorph on apical-final stems, particularly when the stem ends in /rr/. Some of this variation may be explained by laminalisation of the palatal morpheme.

Several other nominal suffixes have allomorphs conditioned by the final segment of the stem to which they are added. Table 2.7 shows these for the categories of number,[9] three cases and the inchoative suffix. The rules which operate are indicated in the final row.

Number markers used with consonant-final stems are invariable but the case markers and inchoative suffix in the same environment are subject to place assimilation (§2.3.1). Underlying forms which attach to vowel-final stems begin with a low vowel /a/ in all of the suffixes under discussion. This precipitates one or more of the rules previously described. According to the height of the final vowel, this can be final vowel reduction (§2.3.6) or glide insertion (§2.3.5). The latter provides the environment for other processes to occur.

[9] The plural suffix does not differentiate between vowel-final and consonant-final stems but is included here for comparison with the dual suffix which does differentiate.

Table 2.7 Allophonic variation for five nominal suffixes

	vowel-final stem		consonant-final stem	
	/a/	/i/ /u/		
dual	*-arra*	*-yarra*	*-kuyarra*	
plural	*-arti*	*-yarti*	*-arti*	
			[-apical] or [+rhotic]	[+apical, -rhotic]
source	*-angka*	*-yangka (-angka)*	*-jangka*	*-tangka*
comitative	*-artu*	*-yartu (-artu)*	*-jartu*	*-tartu*
inchoative	*-arri*	*-yarri (-arri)*	*-jarri*	*-tarri*
rules applied:	induces vowel reduction	glide insertion; (optional segment deletion V[+high] + G → Ø)		consonant assimilation

Alternative expressions are created by inconsistent vowel assimilation (§2.3.4) and the optional application of segment deletion (§2.3.6).

Fronting of [+back] vowels occurs sporadically after glide insertion with number suffixes:

turrpu-yarti	cave-PL	>	*turrpiyarti*	‘caves’
kartu-yarra	child-DU	>	*kartiyarra*	‘two children’

but not in all examples:

kartu-yangka	child-SRC	>	*kartuyangka*	‘because of the children’
jarntu-yarti	relative-PL	>	*jarntuyarti*	‘relatives’
wangu-yarra	wife-DU	>	*wanguyarra*	‘two wives’

Optional segment deletion occurs after glide insertion. This is most common in stems of three or more syllables ending with a [+back] vowel, but is not restricted to these contexts. However, non-deleted forms are preferred for nominals ending in /i/ with both the dual suffix and stems of fewer than three syllables employing the inchoative. In addition, the

inchoative is frequently used as a free verb rather than verb-deriving affix in these conditions (see §7.3 for a detailed account of this morpheme).

ngayu-yangka	I-SRC	>	*ngayangka*	'from me'
yulpurru-yartu	early-COM	>	*yulpurrartu*	'earlier'
yurranyangu-yarri	morning-INCH	>	*yurranyangarri*	'become morning'
kurtiji-yarri	swift-INCH	>	*kurtijarri*	'run'
pantu-yarra	MED-DU	>	*pantarra*	'those two'
wanyanu-yarti	sandhill-PL	>	*wanyanarti*	'sandhills'
wipirti-yarti	small-PL	>	*wipirtarti*	'little ones'

but

kuli-yarri	anger-INCH	**kularri*
wipirti-yarra	small-DU	**wipirtarra*

Segment deletion may feed other rules such as place assimilation and its optional nature creates multiple allomorphs. Each of the following has been heard:

mukurru-yartu-ju	club-COM-ERG	>	*mukurruyartuju*	'with a club'
		>	*mukurrartuju*	
malinyanu-yangka	mother-in-law-SRC	>	*malinyanuyangka*	'because of
		>	*malinyantangka*	'mother-in-law'
piljinti-yangka	snake.sp.-SRC	>	*piljintiyangka*	'from the snake'
		>	*piljintangka*	

3 Word classes

3.1 Introduction

Independent words in Mangarla can be separated into five open classes, each containing closed subclasses: nominals (§3.2), verbs (§3.3), preverbs (§3.4) particles (§3.5) and interjections (§3.6). These can be distinguished clearly on morphological and distributional grounds. Nominals and verbs take different and unique inflectional suffixes. The other three classes have invariable forms. However, preverbs combine with an inflecting verb or auxiliary to form a compound verb, and interjections form independent utterances. The 'left over' word class of particles is used for both independent lexemes and clitics which are optionally used to convey largely adverbial or propositional information about an event.

Pronominal clitics register grammatical information about clausal participants. They form the bound pronoun complex (§3.7) which is present in most clauses.

Some roots belong to more than one class without additional derivational morphology. For example, the negative *wajarri* functions as a sentence particle to negate a proposition, as well as an interjection ('No!'); it also functions as a nominal to modify another nominal (*wajarri purlka* 'not big') and frequently takes nominal suffixes. Marked by the COMitative, it becomes the nominal modifying privative, *wajarrartu*, and with *-yiti* 'CHARacterised by' it becomes a referential nominal *wajarriyiti* 'abstainer'. A few verbs of the Ø conjugation can also take nominal morphology as action nominals without first being nominalised by the infinitive marker *-nyu* (*e.g. karnti-nyarri* [climb-IPFV] 'is climbing' *cf. karntingka* [climb.LOC] 'high up' and *karri-nyarri* [stand-IPFV] 'is standing' *cf. karringka* [standing.LOC] 'in a standing position' and *karringka-angka* [standing.LOC-SRC] 'from standing'). The use of *karri* as an interjection meaning 'hang on/in a minute' may be an extension of its use as an imperative verb from the Ø class. Many nominals function as preverbs, usually in restricted combinations, such as *mil* 'eye' in *mil-kangarri* [eye-AUX.IPFV] 'seeing/looking', or *yarrkal* 'hunting excursion' in *yarrkal-pungarri* [hunting-AUX.IPFV] 'go hunting'. The 'whatsaname' pronoun, *nganiji*, moves freely between nominal and verbal classes. Some stems occur either as preverbs in combination with an inflecting auxiliary (*e.g. yaji-pungarri* [wait-AUX.IPFV] 'waiting') or as inflected verbs after auxiliary reduction (*yajingarri* [wait.IPFV] 'waiting').

Subclasses within each larger category can be proposed according to semantic or functional criteria. However, membership of these too is often flexible. Throughout this work, examples are shown of polyfunctional words which adapt morphosyntactically according to the demands of discourse.

3.2 Nominals

Nominals inflect for case which relates them to the predicate or to another nominal. They may also take stem forming morphemes such as number and derivational suffixes (§4). The morphological characteristics of a particular nominal arise from the syntactic function it performs, which in turn reflects its semantic properties. The general nominal subclass, incorporates traditional notions of noun, adjective and quantifier (§3.2.1). Spatial and temporal locators (STLs - §3.2.2) and action/manner nominals (§3.2.3) form separate subclasses. Pronominals (§3.2.4) comprise a closed nominal subclass with a deictic function which can be further divided into the three smaller semantic groups: personal pronouns, indefinites/interrogatives and demonstratives.

All nominals can head a noun phrase and accept nominal suffixes, but different subclasses and individual lexemes within them vary in the degree to which they exhibit characteristics traditionally associated with 'nouns', and many perform functions traditionally associated with other word classes. Members of this large and varied class form a continuum, from those displaying prototypical morpho-syntactic characteristics of the category to others displaying fewer (*cf*. Aarts *et al.* 2004).

Figure 3.1 shows the gradience of nominal features in Mangarla. Categories on the left are prototypically more noun-like than those on the right. For example, proper names and substantives on the left are referential, function more frequently as arguments, take a wide range of inflectional and derivational suffixes, and may be modified by another nominal. Although the morphology of those on the right, like action/manner nominals, places them in the nominal class, they tend to characterise events and function more as adverbial modifiers or predicates. They are never modified by another nominal and while they can refer to entities and function as arguments, they do so infrequently and generally require stem-forming nominal suffixes before receiving core case-marking. Pronominals, shown as deictics, display the same general tendencies. They perform the same range of functions and take the same range of morphology as other nominals.

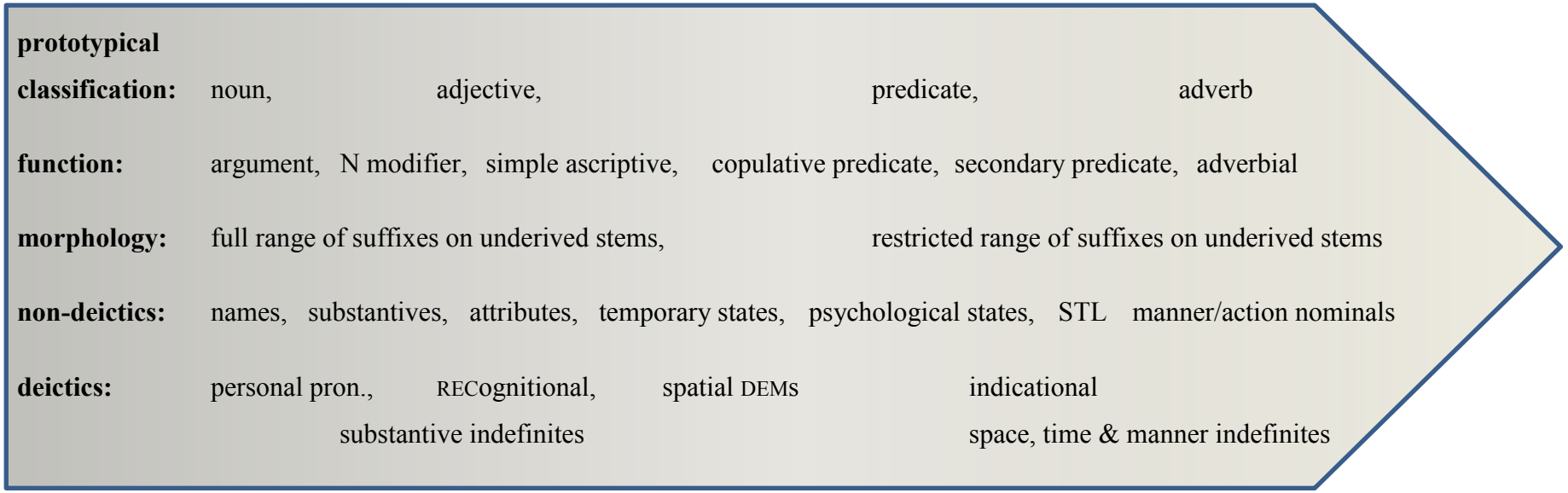
All boundaries shown in Figure 3.1 overlap to some degree in Mangarla due to the versatility of many individual lexemes. Most are able to function in contexts other than their customary use when discourse requires it, just as potential semantic subclasses do not correspond uniformly to a particular syntactic behaviour. Contributing to this flexibility is the broad semantic scope of many lexemes which may both denote an entity and connote its properties. Multiple senses permit varied functions as attributive, substantive, adverbial or predicate:

parra(parra)	'midday', 'daytime', 'sun', 'hot', 'painful'
wanyjirra	'another', 'other', 'different', 'stranger', 'alternatively', 'also'
nila	'knowledge', 'knowledgeable, clever', 'know'
kajalu	'ahead', 'prior', 'early', 'an earlier one'

In such cases, pragmatics usually determines function and thus no distinction is made between noun and adjective since, in general, they behave morphologically and distributionally alike. Both substantive and attributive nominal roots can function as the head of the noun phrase in argument function (§9.3.1), or as a modifier (§9.3.2), as a non-verbal predicate, both main (§12.2) and secondary (§12.4), and as a copula complement (§12.1). Both can be modified by *ningarra* 'true' (§9.3.2) and negated by *wajarri*, and the inchoative is used to derive verbs from both types (§7.3). Both participate in the same type of comparative construction (§13.1.1) and while nominal inflectional and derivational morphology (§4.3 - §4.6) is formally invariable for both types, semantic incompatibility between individual lexemes and particular suffixes leads to statistical imbalance in some instances. For example, the genitive predominantly marks pronominals, is found infrequently on general nominals, and rarely on attributives. Dixon (2004:12) notes that differences between nouns and adjectives can be very subtle, and directions for further research in Mangarla might include potential meaning differences after reduplication and variation in the use of question words. However, at this point, any differences identified are minor, tending to involve semantics, and are not deemed sufficient to justify an independent adjective class.

However, the behaviour of more event-focussed nominals, like spatial/temporal locators and action/manner nominals, is more restricted. They can be distinguished from general nominals not only semantically but also on morphological and distributional grounds.

Figure 3.1 Gradience of nominal characteristics in Mangarla



3.2.1 General nominals

The general nominal subclass contains substantives, including names (both personal and placenames), kinship terms, and cultural artefacts (*e.g. Ngiyingiyi* 'Mowla Bluff', *Ngujpan* 'personal name', *kampaja* 'mother', *warlu* 'fire/firewood', *ngarrungu* 'person', *kulparn* 'acacia sp.' *karrpirna* 'shield'), abstract concepts including linguistic entities and natural phenomena (*e.g. juju* 'song', *yini* 'name', *rayi* 'spirit', *wangarr* 'shade/shadow') as well as words which connote attributes, for reasons described above (*mapu* 'good', *purlka* 'big/numerous', *wanyjirra* 'different/other', *tanyji* 'hard/tough/heavy') and quantifiers (*murrkun* 'three', *wulala* 'a lot'). As an open class, many loan words have also entered this class such as *murtika* 'motor vehicle', *Yingkilij* 'English', *tuwa* 'store' from English and *kirlaki* 'father's father', *kilinyman* 'moon' from Nyikina (or Walmajarri) and *jurarr* 'sea' from Karajarri, and many others of unknown origin which are lingua franca in the region where people now live.

General nominals can take a wide range of case marking and derivational suffixes. Number marking can also be added to most, and a small number of other suffixes can be applied to semantically appropriate terms, for example kinship suffixes (§4.6.6). However, relationship terms are not considered to form a separate class for three reasons. Firstly, many also take regular number and case suffixes. Secondly, the special suffixes, -(*ny)angu* [DY] 'dyadic' and -*marta* [PLKIN] 'plural reciprocal relationship' apply only to reciprocal terms and do not occur on all kinship terms. Thirdly, these suffixes also occur (albeit rarely) on non-kinship terms such as *yarlpurrangu* 'a pair of lawmates' and *Panakanyangu* 'a pair from the Panaka section' and may even be the origin of *yurranyangu* [night-?DY] 'morning/tomorrow'.

Proper nouns are also undifferentiated morphologically from other nominals and thus not considered a separate subgroup, unlike those in some related languages (*e.g.* Yankunytjatjara (Goddard 1985), Martuthunira (Dench 1995), Wangkajunga (Jones 2011)). While they are marked for case in the same way as other nominals, and may occur with a determiner in an NP (§9.3.4.1), the use of other modification, such as attribution and negation, and the use of many derivational suffixes may be restricted for semantic reasons.

3.2.2 Spatial and temporal locators

Nominals which locate entities in space and time, referred to as spatial temporal locators (STLs), comprise a nominal subgroup defined on semantic and morphosyntactic criteria. It includes terms for cardinal directions (*ralinyja* 'north', *kila/kurlila* 'south, *kakarra* 'east', *kara* 'west'), vertical position (*kaniny* 'below', *kanu* 'bottom', *kanka* 'top'), relative position (*marnpa* 'close', *purturr* 'in the middle/half way'), times of day (*yurra* 'night', *yurranyangu* 'morning', *majil*, afternoon, *janyja* 'today/now'), times of year (with an occasional loan) and names of natural phenomenon related to seasons (*parrkana* 'cold windy season (Mar.-Aug.)', *wilpuru* 'hot dry season (Aug.-Dec.)', *kawurrkawurr* 'hot wind in July', *ngapalkarra* 'raining/rainy season', *parra* 'sun/heat/daytime', *yarliti(tayim)* 'holiday time'), and time relative to another event (*yulpurru* 'early/before', *warrimpa* 'by and by', *jartarra* 'already'). Some are polysemous, indexing either time or space, for example, *kajalu* 'ahead, in front of/early/before' and *yangka* 'behind/after'.

Members of this subgroup also vary in their functional and morphological potential, according to individual semantics. They primarily function adverbially, most occurring uninflected in restricted contexts, unable to act as an argument or modifiers without additional morphology.

STLs also frequently combine to form compounds to more narrowly define a spatial term (*e.g. kanka=rra walu* [top=away face] 'facing upwards', *kaniny jurra* [below down] 'down below'). In neighbouring Walmajarri, similar forms give additional spatial information relative to other objects, including the distance from a particular reference point, (which may be the speaker), or its trajectory or extent (Richards and Hudson 1990). The full range has not been explored in any detail in Mangarla.

While they can take a range of regular nominal case markers such as ablative and source as well as the comitative, comparative and manner suffixes, STLs have an inherent locational sense and, unlike other nominals, rarely take locative case marking which is sometimes optional, and found more frequently on temporals than spatial terms.[10]

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[10] Some frozen forms potentially include historical locative markers. For example, *rantangka* 'outside' occurs as *ranta-nga* 'outside-LOC' in Walmajarri, and *rirringki* 'riverbank' may derive from *rirr-i-ngka* 'side-EP-LOC'.

However, an extended range of inflectional markers not found on other nominals apply only to this subclass. They include special forms of the allative (*-kurna* not *-karti*), an optionally augmented ablative (-(*marra*)*ngu*), a perlative (*-kurti*), and others indicating relative direction (*-karti* 'side', *-nin* 'further', *-ngarra* 'unspecified location' *etc*.).

3.2.3 Action and manner nominals

This open subclass is referred to variously as 'active adjectives' (Goddard 1985), 'action nominals' (Simpson 1991), 'adverbs' (Bowe 1990) or 'coverbs' (Meakins and Nordlinger 2014). As nominals in Mangarla, members can take case markers and other nominal suffixes but are distinguished from other nominals on semantic criteria and their more restricted morphological and distributional potential.

These nominals provide information about the nature or purpose of an activity or the manner in which it is carried out and almost always function predicatively. Action nominals are sometimes difficult to define in a short gloss. For example, *wurna* 'move off' implies departure from the current location as well as a short excursion or a longer nomadic trek, *pingka* is a ceremonial hunting trip while *yarrkal* is used almost exclusively at Jarlmadangah to mean 'hunting trip' but is also defined by McKelson as 'any kind of movement together *e.g.* a picnic' (McKelson 1974:144) and possibly indicates any kind of group excursion with food as a focus. Others, like *witi* 'play/dance', *tiwarra* 'stagger' and *kurtiji* 'swift/running', are more straightforward. Many are loan words such as *rayitapawut* 'check stock/fences on horseback', *warrkam* 'work'and *ranawiyi* 'run away'. Stative activities are also represented (*karri* 'standing', *lampu* 'sleeping/lying', *purrurlpurrurl* 'bubbling/boiling'). Manner nominals describe the way in which an activity is performed (*jarna* 'piggyback', *kurntu* 'borne on shoulders', *nganypi* 'cradled in arms', *warruk* 'quickly', *punyja* 'slowly') and psycho-affective states often attribute motivation and imply manner to an event (*ngurrpa* 'ignorant', *nila* 'clever, know', *rayin* 'in fear', *kuli* 'anger, aggressiveness', *pararrka* 'sorry, feel for').

Action/manner nominals generally occur alone as a separate NP constituent, functioning as uninflected adverbial modifiers or secondary predicates (§12.4) but they can take nominal suffixes, including locative and source cases, to derive stems which can function as arguments and take further inflection (*e.g. yarrkal-tangka-ju* [hunting-SRC-ERG] 'the one who had been hunting', *kuli-yiti-ju* [anger-CHAR-ERG] 'the one who is always causing

trouble'). On occasions, they act as main predicates (§12.2.3). Some, like *nila* 'clever, know about' and *rayin* 'be frightened of', may even select non-subject arguments (§12.3).

As a reflection of its focus on activities rather than participants, this subclass provides many examples of words which function in multiple word classes. Compare the next six examples with *kalakala* that is used as a source-inflected referring nominal in (3.1), and as an action nominal in (3.2). In (3.3), with the inchoative suffix, it becomes a derived verb and functions as a preverb with the transitive verbalising auxiliary *ka-n* in (3.4). However, in (3.5-6), the auxiliary is omitted and it appears as a finite verb of the *-rra* conjugation.

3.1 *dyalabindi na bara bara ri gala gala anga*
jarlapinti=rna parra~parra-arri ***kala~kala-angka***
excrement.thing=1SG.S heat~RDP-INCH **running~RDP-SRC**
'My anus is sore from diarrhoea.' (McK:77)

3.2 ***kala~kala*** *nga=na ya-n*
running~RDP CAT=3SG.S go-PRES
'He goes running after it.' (PSan25)

3.3 *galagalarina*
kala~kala*-arri=rna*
running~RDP-INCH=1SG.S
'I have the runs (diarrohea)' (McK:152)

3.4 *ningarra=wun nga=na wanyjirra* ***kala~kala-ka-nku***
true=WELL CAT=3SG.S other **running~RDP-AUX-FUT**
'He will truly pursue another one.' (HTG136)

3.5 ***kala~kala-nku****=na kunyarr-ju yurrany~yurrany-jangka pantu kuwi*
running~RDP-FUT=3SG.S dog-ERG sunrise~RDP-SRC MED meat
'The dog will chase after the game from sunrise.' (HTG157)

3.6 *galagalara*
kala~kala-rra
running~RDP-IMP
'You chase (one).' (McK:147)
'Chase it!'

Ideophones are a specific type of action nominal, onomatopoeic lexemes which mimic the sound made by an entity (*nguru* 'howl', *wukuk* 'croak (frog)' *kurr* 'wind noise', *turl* 'noise made by a shooting rifle', *ngurrp* 'plop'). Names frequently have ideophonic stems. These can be underived (*nyarrapatpat* 'crested pigeon', *lirr* 'cricket', *kurturt* 'peaceful dove', '*tiyartiya* 'mudlark'), or like human nicknames, can be formed with nominal suffixes such as *-karra* 'manner' or characterising suffixes (*pat-kurru* [thump-doer(NK)] 'kangaroo sp.', *turlkarra* [turl-MAN] 'rifle', *Pirnikarrartu* [snort-MAN-COM] 'personal name').

3.2.4 Pronominals

Pronominals form a subclass of nominal consisting of three smaller closed subgroups: personal pronouns, interrogative/indefinites and demonstratives (§5). Like all referring nominals, these inflect along ergative/absolutive lines. Pronominals can replace other nominals in any function, including as adnominal modifiers. However, as deictics, their referents are pragmatically determined.

Independent **personal pronouns** (§5.1) comprise a small closed subclass which makes a three-way number distinction: singular, dual and plural. First person non-singular pronouns distinguish whether or not the addressee is included (inclusive and exclusive). Pronouns are not distinguished for gender. Their typical function is as arguments but like all nominals, their presence in the clause is optional, since bound pronouns identify participants in most clauses; free pronouns are used mostly for emphasis or clarification.

Pronouns with unspecified referents can be used as **interrogatives** or **indefinites** (§5.2). Three basic forms, each with allomorphs, comprise the paradigm of indefinite/interrogative pronouns. Broadly speaking, the first *ngana* 'who/what, someone/something' is used for entities, the second *jarni* 'where/how, somewhere/in whatever way' for location and manner, and the third *nya-* 'when/how much, sometime/some amount' for quantity and time. The 'whatsaname' pronoun, *nganiji*, is based on *ngana*.

Demonstratives are deictics which index a physical entity, location or activity present in the environment or one which occurs in the discourse. Multiple allomorphic forms occur from five stems, comprising spatial and non-spatial demonstratives.

Spatial demonstratives make a three way distinction, proximal, medial and distal, relating to the relative distance of the referent from some deictic centre, such as, but not exclusively, the speaker. The referent of spatial demonstratives cannot be separated from its relative location. For example, the proximal pronominal, *nyaltu* may refer to an entity in proximity to the speaker ('this one') or adverbially to the location itself ('here', 'this place') and used adnominally, incorporates both specifying and locational senses *nyaltu kuwi* 'this meat here'.

The non-spatial demonstratives are *nguju* 'RECognitional' (§5.3.3) and the indicational *yakarni* 'thus' and their inflected forms (§5.3.2). The indicational *yakarni* 'thus' is rarely found uninflected, taking the comparative suffix when referring to an entity, or the manner suffix when indicating the manner in which an activity is performed (§5.3.2). These are required before other case marking is added.

The RECognitional demonstrative *nguju* 'you know' calls on the hearer to focus their attention on a particular entity, activity, location, or proposition of which speaker and hearer have a shared knowledge.

3.3 Verbs

Verbs (§7) are distinguished from all other word classes by inflectional affixes signalling tense, aspect, and mood. They belong to one of three conjugational classes (§8). Two types of verb occur: simple and complex. Simple verbs are mono-morphemic stems to which inflection is added, while complex verbs consist of a preverbal element (preverb or nominal) which combines with a monosyllabic inflecting verb (called here an auxiliary), to form a unique lexeme. Eight of the twelve auxiliary verbs also function as simple verbs.

The verb class is open and some preverbs and nominals, such as *yaji* 'wait' or *kurtiji* 'swift', function as inflecting verbs (probably as the result of auxiliary reduction (§7.4)). Nominals, and loanwords from English, Kriol, and neighbouring languages become compound verbs with the addition of an auxiliary, particularly the transitive auxiliary *kan* (*e.g. warrkam*(K)-*kan* 'works', *liyani-kan* [feeling(NK)-AUX.PRES] 'desires', *wanyjungka-kan* [one.LOC-AUX.PRES] 'unites with') or the inchoative *-arri/-jarri* (*e.g. buwan*(E)-*tarri* 'is born', *ranawiyi*(E)-*jarri* 'absconds', *wanyjungka-jarri* 'becomes one').

Semantically this word class denotes physical and mental activities (*punga* 'hit', *parti* 'goes', *ngurrjan* 'talks about', *nila-yunga* 'teaches', *pap-pun* 'forget about'), positions and states, (*kapan* 'sits', *karri* 'stands/wants', *wanti* 'is/stays', *karti-man* 'holds', *waji-man* 'keeps'), change of location or state (*yunga* 'gives', *ngunyi-man* 'sends', *wirrjanga* 'puts'), perception (*nyanga* 'sees', *mil-kanga* 'sees/looks at', *warrin* 'looks for, seeks', *pina-man* 'hears/thinks/understands'). Most stative verbs, together with the free inchoative verb, act as copulas (§12.1).

Verbs select one, two, or three obligatory arguments and many may add another optional argument such as accessory or goal. Argument structure is examined in §11.3.

3.4 Preverbs

Preverbs (§7.2.2.1) form an open class of uninflected words which combine with one or more auxiliary verbs to form a single semantic unit (*e.g. yita-* in *yita-kanga* 'gives' and *rang-* in *rang-jun* 'pants' and *rang-kun* 'breathes'). Although nominals can also act as preverbal elements, words classified as preverbs are unattested without an inflecting auxiliary verb (although in a few cases, auxiliary reduction means they can take verbal inflection directly (§7.4)). Preverbs are phonologically independent words which can be elicited as free morphemes, unlike simple verbs which speakers will only utter fully inflected or broken into syllables. Although most preverbs are contiguous with the inflecting auxiliary, some can also be separated from it by other information in a 'loose nexus' (§7.2.3).

In this work, the two parts of 'close' compounds are generally separated by a hyphen, to reflect the morphological juncture between them, and the auxiliary is glossed as AUX. However, the gloss given below the preverb usually relates to the whole compound whose meaning is often non-compositional.

Preverbs vary in their productivity; while some combine with more than one auxiliary, the majority occur in a single compound. Many are loanwords, particularly coverbs borrowed from non-Pama-Nyungan neighbours, which may account for the unusual phonology of some, such as the many monosyllabic consonant-final examples (*e.g. muk*(YW, NK) 'hit', *paj*(YW) 'cut wood', *yaly*(YW) 'lick', *yarr*(YW) 'rub', *witij*(YW, NK)

'dig', *rurrp*(YW) 'exchange', *wup*(NK) 'singe', *warr*(WLM) 'spread out', *lakarr*(NK) 'climb').

3.5 Particles and clitics

The particle class is a default class of morphologically inert elements which are optionally added to a clause to provide further information about the event or its participants. Much of this is adverbial or modal in nature but also includes certain discourse functions.

Particles are categorised as independent words or as clitics. Independent particles have the phonological status of a word, while clitics are phonologically dependent on another lexical item and are unable to bear major stress within the word. Clitics can (theoretically) attach to a word of any class. However, many attach only to nominals or other particles (never to preverbs), but in all cases, they are post-inflectional and generally placed before bound pronominal clitics (BPs). Only two can occur after the BPs: the emphatic *=(a)wu* and the anticipatory clitic which, although it can occur elsewhere, is attracted to imperative verbs in a fixed syntactic expression (§8.7). Other than these, no examples of a word hosting more than one clitic are attested, although the lexicalised expression *ningarra(l)kurtiny*, which McKelson (1974) translates as 'impossible' may have originated from the particle and clitic combination *ningarra=lku=rtiny* [true=RESTR=EXPECT].

Most particles and clitics have scope over over the entire proposition, but some, notably those which intensify or restrict may have scope over a single element. Both types can occur anywhere in the clause, but preferred positions can be identified according to type and function. Those with clausal scope, such as sentence, discourse and propositional particles typically occur clause-initially, while those with limited scope occur adjacent or encliticised to the element they modify. Some particles occur in a fixed position, or have co-occurrence restrictions with tense, aspect or mood. This includes the anticipatory clitic mentioned above.

Common particles are listed below. They are divided into semantic categories for convenience but the divisions are somewhat artificial and the interface between semantics and pragmatics mean that, for many, interpretations vary according to the context of the utterance. The lists are not exhaustive nor exclusive of other potential word class

distinctions. For example, in Yankunytjatjara, Goddard (1985) proposes a class of adverbs separate to the particle class. This may also result for Mangarla after a more focussed study on the items examined here. Those marked with an asterisk in the following lists are attested only in McKelson (1974).

Adverbial information provided by particles may express 'manner' or 'space and time' as listed below. 'Manner' particles modify an activity by specifying some value about its performance. This might be a compromised effort or result or an attenuation of its lasting effect or significance. Spatial or temporal information can be difficult to translate. Some temporals specify the timing of one event with respect to another, while others have aspectual meanings. Two spatial clitics, both widespread among Pama-Nyungan languages, indicate movement in a direction relative to the speaker or other deictic centre. They attach to both nominals, particularly spatial terms, and imperative verbs.

Some adverbial particles are phonologically distinctive as consonant-final monosyllabic words which are often also found in the prefixing languages of the north and in the Ngumpin languages functioning as uninflected coverbs and particles.

manner	*murl* 'almost'
	murta 'nothing, no reason'
	titirrp 'unsuccessful attempt'*
	jaly 'in vain'*
space and time	*jata* 'still'
	purlu 'settled, stop quiet'
	jartirr 'shortly, for a short time'
	jurturru 'ongoing, constantly'
	yap 'leave behind'
	tarrp 'forever'
	jartipurtu 'quick smart'
	yalparra 'again, more, later'
	=lpiny, =lpirtiny, =liny 'first'
	=rni 'toward'
	=rra 'away from'

Semantically and distributionally, free adverbial particles resemble some nominal subtypes with similar functions (§3.2.2 and §3.2.3). However, particles never occur with nominal morphology or with copula verbs, although some might be subject to reclassification in the future. Similarly, some words currently classified as nominals might also be reassigned to the particle class after further investigation.

Other particles specify the degree or scale of an event, emphasising or restricting its reference or importance, or that of an entity or quality.

ningarra 'true', 'really'
murta 'nothing', 'merely', 'only'
=(a)wu 'EMPHatic, exclamation'
=nyjangu 'INDEED, very'
=wun 'WELL, emphatic, certainly'
=lku 'RESTRictive'

The final three clitics listed in this category overlap in function and are particularly difficult to define. Schultze-Berndt (2002:253) proposes that clitics with similar functions in other Australian languages have evolved from 'markers of emphatic assertion of identity' ('very/really X', 'the same/very X'). By asserting the identity of one constituent (X) in its scope, the particle can exclude possible alternatives, leading to different contextual interpretations: an exclusive reading ('just X and nothing else', 'only X'), a restrictive reading with locations and times ('precisely/right at X') or where a predicate (V) is in scope, a temporal reading ('still V', 'V all the time') and a repetitive reading ('V again', 'NP also V') (p. 255, 262). She identifies eleven functions across seven languages (p. 250). In Mangarla no clitic covers all of these, but two in particular, *=wun* and *=lku* perform many of them.

The interrogative (§8.4) and negative (§8.6) are sentence particles which signal mood.

wajarri 'NEGative, nothing, no'
yaka 'NEGative'
wayi 'Question'

Discourse particles connect and close stages of the discourse, contributing to its cohesion and flow. Sentence connectors, only two of which are listed, exemplify inflected nominal

forms which have become lexicalised in a unique function (§5.3.6.2). The Kriol '*an*' is sometimes used with the same function.

Several terms are used to indicate a turning point within a narrative or the end of a spoken interaction. Two, *kakurtu* (sometimes *kawurtu*) and *ngulartu*, are identified as reflecting dialectal differences by speakers and McKelson (1974) although most speakers from Jarlmadangah use both words. The last two are borrowings from Yawuru and Kriol respectively.

pantangkaju 'after that', 'then'
nyalarungu 'from here', 'now'
ngulartu 'finish, that's all'
kakartu 'finish, that's all'
jutuk(YW) 'end'
yurayit(K) 'finish, that's all'

Propositional particles supply both deontic and epistemic information, which express a speaker's attitude, intentions or beliefs in respect to the proposition. This may be a judgement about the information it contains, a comment in relation to its truth or to cultural norms, or an indication of their role in the speech act itself. In this regard, they link the utterance to the extra-linguistic context, combining pragmatic and semantic features of individual utterances, making it difficult, in some cases, to define semantic constants. Glosses given for the last two in the following list are only tentative and require further investigation, as they often combine with other particles.

kamurra 'uncertain', 'maybe'
ngungku/a 'correct, certain'
ningarra 'true'
murta 'nothing', 'trivial'
=kulu 'ANTICipatory' (§8.7)
=((l)ku)rtiny 'EXPECTation'
=(l)pa(rra/rri) 'ASSERTion'

Studies by Schultze-Berndt (2002), Laughren (1982, 2011) and Caudal *et al* (2011), amongst others, in Australian languages, reveal complex semantic relationships between

particles and clitics and the lexemes and inflections with which they combine. The work undertaken in this area to date in Mangarla has been superficial and it is an area of research which deserves detailed attention.

3.6 Interjections

Interjections are independent utterances which express a speaker's attitude or judgement, either about the preceding utterance or about an extralinguistic event (Laughren 1982:132). They convey, for example, surprise, pity, approval, attention seeking, agreement and disagreement. They can also suggest a course of action such as 'proceed' or 'let's go'. Many also occur as particles or members of other word classes.

yuwayi, yu 'Yes!'
ngawayi, ngayi 'Yes!' (believed to be Nyikina)
ngungka/u 'Correct!', 'Indeed!
ningarra 'true'
murta 'Nothing.', 'Leave it alone.'
kaj 'Go ahead.'
pa 'Well?'
warawu general expression of surprise,
'Look out!' 'Poor thing!', 'Oh no!' 'Hey!' 'Ouch!'
wajarri 'No!', 'Nothing.', 'Oh no!'
ngulartu/kakurtu 'Finish.', 'Moving right along.' 'Alright.'
jartipurtu 'Hurry up.'
karri 'Hang on a minute.'

McKelson (1974) also includes:

jamuru 'Never mind.'
watali 'Poor fellow.'
watarrku 'Poor fellow.'

A few loans from Kriol/English are also used:

puwapala 'Poor thing.'
tumaj 'That's a lot.'

pinij 'All over/gone/done!'

jatanawu 'The very one!'

3.7 The bound pronoun complex

The bound pronoun (BP) complex is present in most simple clauses (§6). It consists of an optional particle, called here the CATalyst (after Capell 1972), and one or two clitic pronouns, which may be simple or complex. The unique forms, function and distribution of the BP complex distinguishes it from any other morphological class and justifies separate description/classification.

The BP complex has scope over the whole clause, and provides syntactic information, registering the person, number and grammatical function of participants. The catalyst (§6.3.2) has no semantic value and most likely originated as a phonological device, the form *nga* still used as an epenthetic element (§2.3.5).

Bound pronouns differ from free pronouns which belong to the nominal class. Unlike ergative/absolutive nominals, BPs are organised along nominative/accusative lines, marking intransitive subject (Si)[11] and transitive subject (A) alike and using separate forms for non-subject functions. For all but one of the eleven persons represented by Mangarla's free pronouns, there are four clitics to register its function as subject, object, oblique or as the second oblique participant (§6.1.1). Third person singular has only two overt forms, subject and oblique. It is expressed by *Ø* in object function, and it cannot be registered as a second oblique. Three reflexive/reciprocal (RR) clitics register object, oblique and second oblique functions when coreferential with the subject (§6.1.1.5).

Most BPs are enclitic, phonologically dependent on the preceding element, either the catalyst or a lexeme from any word class, including preverb. Thus, the BP complex is generally placed after the first element of the clause in a split-Wackernagel system (McConvell 1996), although under certain conditions it can occur in other positions (§6.4). Polysyllabic clitics and BP complexes occasionally have word status, appearing clause-initially and taking main stress on the first syllable (§6.4.2). These variations

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[11] This function is generally represented by S after Dixon (1980). However, Si is used in this work to distinguish it from Subject, the conflation of A and Si registered by BPs, after Blake (1977)

appear to be related to information structure, as noted for neighbouring Ngumpin languages (McConvell 1996, Meakins and Nordlinger 2014). The BP complex may also be omitted in certain circumstances (§6.2), such as in clauses with nominal predicates and in subordinate clauses.

While imperative clauses typically omit the subject clitic, they may optionally mark the number of the second person addressee, *=pala* 'dual' (homophonous with 3DU.S) and *=yi* 'plural'.

The BP complex is the most important and most difficult part of Mangarla grammar to understand and there is sometimes wide variation in complexes with a single interpretation. Clitics are subject to morphophonemic rules whose application may be blocked or fed by the use of other strategies, such as reordering or epenthetic elements (§2.3 and §6.1.2). Some of these processes, such as progressive vowel assimilation (§2.3.4), are not found in other word classes. Homophony or near-homophony of many clitic combinations also makes interpretation difficult for the learner. Chapter 6 details all aspects of the BP complex.

4 Nominal morphology

This chapter describes the elements which comprise the nominal word (§4.1), beginning with the root (§4.2) and the role played by reduplication (§4.2.1), compounding (§4.2.2) and verbal nominalisation (§4.2.3) to form the base upon which derivational and inflectional suffixes are attached. Section 4.3 examines the forms and functions of case marking while §4.4 and §4.5 describe suffixes which derive comparative/associative nominals; §4.6 examines suffixes marking number. Finally, §4.7 describes the post-inflectional nominal conjunction *-pa*. The pronominal subclass (§5) employs much of the same morphology, unlike some southern Western Desert languages which treat these differently (Goddard 1985, Jones 2011).

4.1 The nominal word

The nominal word consists of a root and optional derivational, number, and case suffixes. It rarely contains more than two suffixes and may consist solely of the root (especially since absolutive and dative 'inflections' are phonologically null, and case-marking is not obligatory on all elements in the noun phrase (§9.2.3)). Suffixes are broadly configured according to their function, as shown in (4.1).

4.1 *root-(derivation)-(adnominal)-(number)-(case)-(other)*

Derivational suffixes usually occur closest to the root, before adnominal and number suffixes, and those which relate the nominal to higher level constituents occur furthest to the right. The 'other' category refers to a few derivational suffixes whose order varies (described below), and the nominal conjunction *-pa* which links noun phrases (NPs) and always occurs as the final element when present (§4.7). Bound pronouns (§6.3) and other clitics can also attach to the nominal word after inflection.

The order presented in (4.1) is generalised and, as most slots are recursive, allows for large numbers of suffixes to potentially occur. However, no attested example contains more than three (4.2-3), although these may include successive layers of inflection (4.3) or derivation (4.4).

4.2 *guli idi yarru*
kuli-yiti-yaru
kuli-yiti-yarti-ju
anger-CHAR-PL-ERG
'wicked people do it'

4.3 *Mangarla-artu-kura-ju*
Mangarla-COM-GEN-ERG
'descendents of (those with) Mangarla do it'

4.4 *ngaja-yiti-marta*
crying-CHAR-CPR
'the type who's always crying'

Furthermore, the order indicated in (4.1) may vary due to case suffixes being multifunctional (§4.3), or to the concentric scoping principle, in which a suffix has logical scope over all elements which precede it, including other case markers. This determines suffix sequences and allows case stacking (Dench and Evans 1988). Order variations usually entail a change in meaning as shown in the example pairs below, where number and case suffixes vary in both position and scope, with rightmost suffixes having scope over all preceding elements.

4.5 *a) jurru-yarra-kura*
snake-DU-GEN
'that belonging to the two snakes'

b) Kalitikirr-kura-arra
personal.name-GEN-DU
'the two belonging to Kalitikirr'

4.6 *a) Mangarla-artu-kura ngarrungu*
Mangarla-COM-GEN person
'descendents of those with Mangarla'

b) Yiliwala-kura-artu
personal.name-GEN-COM
'with Yiliwala's (family)'

However, variations involving two derivational suffixes do not appear to alter meaning. These have comparative sense and can optionally appear after relational case. In (4.7), any difference in meaning is negligible between a) and b), while in (4.8), the speaker repeats herself, changing the order of the suffixes on the final word. While this may be a self-correction, it does not sound like one and appears to be offered as a legitimate

alternative, which may be impacted by the portmanteau number and case morpheme. Similar variations involving these suffixes are shown in unrepeated utterances in §4.4.

4.7 *a) yurrany~yurrany-ja-n-marta*
sunrise~RDP-LOC-EP-CPR
'not quite at sunrise, before'

b) pirriya-marta-ja
cold-CPR-LOC
'in the cooler weather'

4.8 *ngayu-ngku=rna=ja* *muku-narrinya* *wipirti-marta-ju* *kuwi*
I-ERG=1SG.S=1SG.OBL club.AUX-NARPST small-CPR-ERG meat

nyalartu-aru-waliny, *nyaltu-waliny-yaru*
PROX-PL.ERG-SEMB this-SEMB-PL.ERG
'I killed meat for myself when I was only little, just like these ones here.'
(1J130-131)

Dench (1995) suggests that two particular nominal suffixes which can occur either before or after relational case marking in Martuthunira may have originated as independent words that once followed the NPs over which they had scope but which 'may be recently captured satellites in a continuing history of agglutination' (Dench 1995:58, see also Haspelmath 1993, Harris 2017). Interestingly, the first of these marks one of a set of contrasting entities (like *-waliny* above) and the other is the NP conjunction, both functions which can occupy the 'other' slot of (4.1) in Mangarla.

4.2 The nominal root

The root slot in (4.1) can be filled by simple nominal roots of a single morpheme as *ngayu* and *kuwi* in (4.8) or by complex elements consisting of more than one morpheme. Complex nominal roots can be formed by reduplication (§4.2.1), compounding (§4.2.2) and derivation from nominalised verbs (§4.2.3).

4.2.1 Reduplication

Reduplication occurs when part of the base is repeated to produce a word. It is a common strategy in naming places, birds, animals, times of day, and body parts, as well as introduced items, often using borrowed words.

Many reduplications are frozen forms. These often refer to entities or actions which are repetitive or occur in sets or ideophones which mimic the sound made by the referent:

walja~walja	‘testicles’
takurr~takurr	‘rough, corrugations’
tirrp~tirrp	‘(repeated marks on) message stick’
kala~kala	‘running, diarrhoea’
ngurr~ngurr	‘pig’
nyarrapat~pat	‘crested pigeon’
jintirr~jintirr	‘willy wagtail’
wik~wik	‘fishing rod’

At other times, the significance of reduplication is unclear (*e.g.* placenames and times of day). As many permanently reduplicated roots are monosyllabic, the phenomenon may at times be phonologically driven.

Ngiyi~Ngiyi	‘Mowla Bluff’
Walka~Walka	‘Manguel Creek’
ngalu~ngalu	‘shade’
rungurl~rungurl	‘late afternoon’
yipirr~yipirr	‘hair belt used to hang game from’
kuny~kuny	‘brain(s)’
jangka~jangka	‘thorny devil lizard’
jurl~jurl	‘spring(water)’
winy~winy	‘fog’

Both full and partial reduplication occur in Mangarla with the former more common. Roots formed by partial reduplication can involve the first or last part of the word. That is, the repeated element can occur to the left or right, although the former is more common.

munurru~nurru	‘wasp, dragonfly, helicopter’
kumpuru~mpuru	‘cockroach’
kurrparu~paru	‘pied butcher bird’
milyi~lyi	‘brain(s)’
Kula~kulapu	‘Luluigui’
kaja~kajalu	‘earlier’

Derived and inflected words are also found reduplicated. In (4.9-10), inflected nominals are fully reduplicated while partial reduplication of a derived stem occurs in idiomatic expressions like (4.11) which take a single final inflection.

4.9 *wurna-ngu~wurnangu*
move.off-ABL~RDP
'while walking along'

4.10 *parra-artu~parrartu*
sun-COM~RDP
'daily'

4.11 *yakurr-partu~yakurr-ju*
no.good-TYPE~RDP-ERG
'all the different old people do it'

Reduplication of roots which can occur unreduplicated generally signifies plurality or repetition (*wirlkirr~wirlkirr* [crooked~RDP] 'zig-zag', *pakarti~pakarti* [thing.PL~RDP] 'many things') or provides an aspectual element in ongoing states or activities (*makurr~makurr* [path~RDP] 'to and fro'). It can also signal intensity *japurru~purru* [properly~RDP] 'really properly', *mapu~mapu* [good~RDP] 'very good', *parra~parra* [sun/daytime~RDP] 'heat, pain, midday') and possibly attentuation (*jili~li* [red~RDP] 'tinged red').

4.2.2 Compounds

Another nominal word formation process involves compounding where two or more words which can occur independently combine to form a unique lexical item. Many compounds involve spatial terms which combine with each other and other nominals to refine locations. Either element may carry inflection or additional morphology such as the purposive in (4.15), but the final inflection has scope over all preceding elements.

kankarra-walu	[above-face]	'facing upwards'
kaniny-jurra	[below-down]	'down below'
kurlilangu-kara	[south.ABL-west]	'from the southwest'
ralinyja-karakurti	[north-west.along]	'north-westerly/north across to the west'

ralinyja-rirra	[north-mouth]	'northwards'
karangu-rirra	[west.ABL-mouth]	'in the west'
kanungu-nyurru	[bottom.ABL-far]	'deep down'
kila-nyurrukarti	[south-far.ALL]	'far towards the south'

Other types of compound are less common, and many contain modifiers.

4.12 *[yakurr mapu]-ju*
[no.good good]-ERG
'everyone, young and old, does it'

4.13 *guli wadyari idi*
[kuli wajarri]-yiti
[anger NEG]-CHAR
'the one who is without fault' (McK:RT)

4.14 *nindi ganu birri maiaru*
[ninti-ka-nu-pirri mayaru]
[knowing-AUX-INF-PURP house]
'school' (*lit*. house for doing knowledge) (McK:93)

4.15 *[mininy mapu panjurn mininy-pirri]-ja*
[language good wood language-PURP]-LOC
'into a microphone' (*lit*. 'in a stick for speaking good language')

4.2.3 Nominalised verbs

Nominalised verbs are complex roots consisting of a verb stem with the infinitive inflection (§8.3.11), which then take derivational or case suffixes to form new lexical items (*e.g. yu-ngu-yiti* [give-INF-CHAR] 'generous person', *kapa-nu-pirri* [sit-INF-PURP] 'chair').

4.3 Case

Most case suffixes in Mangarla can perform multiple functions, at different structural levels. The relative position of a suffix within the nominal word reflects its function as

shown in (4.1). Following the fourfold categorisation of case marking in Australian languages by Dench and Evans (1988), these functions are:

> **relational case** indicates the role of the NP within the clause in relation to the predicate. Mangarla marks core arguments along ergative/absolutive lines, where intransitive subjects (Si) and transitive objects (O) are marked alike and differently to the subject of a transitive verb (A). Oblique arguments (OBL) are distinguished by a range of other suffixes including the dative, genitive and spatial case-markers. Optional arguments and adjuncts have case-marking indicative of their semantic role.
>
> **adnominal case** relates one NP to another.
>
> **referential case** marks an NP in agreement with another NP in the same clause, usually a core argument, and is used notably with secondary predicates, part-whole and subject-oriented constructions.
>
> **complementiser** function is where case suffixes mark a subordinate verb, specifying a temporal, spatial or logical relation between the two clauses (T-comp), or to signal coreference with an argument in the main clause (C-comp).

Table 4.1 shows the functions performed by nine case suffixes in Mangarla. The absolutive and dative are not included since both are realised as zero, although the absence of overt marking is not always indicative of their presence. It can be argued, however, that both have similar functions to the ergative in this respect.

Some case-markers, particularly those which function as T-complementisers, also perform derivational functions, including the purposive (§4.3.10), as illustrated in the compounds (4.154.14-15) above, and source and manner shown below.

4.16 *ngamarna-angka-yarra-ju* milk tin-*kuyarra-ju*
breast/milk-SRC-DU-ERG -DU-ERG
'with two milk tins, with two milk tins'

4.17 *pantu-karra-yiti*
MED-MAN-CHAR
'one always like that'

Table 4.1 Functions of case suffixes in Mangarla

	referential	**relational**	**adnominal**	**T-comp**	**C-comp**
ergative	✓	✓			✓
locative		✓	✓		
ablative		✓	✓		
allative		✓	✓		
genitive		✓	✓		
comitative		✓	✓		
source		✓	✓	✓	
purposive		✓	✓	✓	
manner		✓	✓	✓	

Because of the concentric scoping principle (§4.1) and their multifunctionality, case-markers do not fall easily into discrete categories with fixed orders. Hence, all forms and functions of each case will be discussed together below. Of the nine main case suffixes, four have phonologically conditioned allomorphs (§2.3.7). The same morphology is used on all nominals including proper names, pronouns, and demonstratives.

There is variation in the way speakers mark multiple elements in an NP. At least one element is generally marked with most speakers preferring complete concord (§9.2.3). However, as in Nyikina (Stokes 1982:60-61), unsuffixed NPs are not unusual and cannot always be easily explained. Case marking may be omitted at times, for various reasons. For example, spatial and temporal nominals are inherently locative and employ specialist suffixes or take only a limited range of optional case markers. Spatial cases are often omitted from general nominals which unambiguously denote locations; pronominals also frequently lack all kinds of case markers (§5), although final vowel variation often reflects underlying case on demonstratives (§5.3).

4.3.1 Absolutive (ABS)

Absolutive case is phonologically null (represented as *-Ø* in this section but generally unmarked elsewhere). It identifies the subjects of intransitive and extended intransitive verbs (4.18), and non-verbal predicates. In transitive clauses, it identifies the sole (direct) object (4.19), or both objects of double object ditransitive verbs (4.20).

4.18 *kapa-rra=nganyjurrungka=kulu ngapa-**Ø***
sit-IMP=1PL.IN.OBL=ANTIC water-**ABS**
'We might get wet (*lit*. Rain might sit on/come upon us.)' (HTD93)

4.19 *mil-ka-nya nga=rna nyuntu-**Ø***
eye-AUX-PST CAT=1SG.S you.SG-**ABS**
'I saw you.' (G111)

4.20 *jipi-ngku=na yinya kulpi-**Ø** parnany-**Ø** nyalara-**Ø***
man-ERG=3SG.S give.PST scoop.coolamon-**ABS** old.woman-**ABS** PROX-**ABS**
'The man gave this woman the cup.' (2sen157)

Most absolutive nominals have the semantic role of theme but can also have a wide range of roles including force, experiencer, patient and recipient.

4.3.2 Ergative (ERG)

The ergative has three allomorphs:

-ngku	on stems of fewer than three syllables ending in a vowel (*pani-ngku* 4.22, *warlu-ngku* 4.24)
-tu	on stems ending in C [+apical, -rhotic] (*Ngujpan-tu* 4.21, *pikal-tu* 4.30, *mangurl-tu* 4.33)
-ju	elsewhere (*kajana-ju* 4.21, *nganiji-ju* 4.22, *winywiny-ju* 4.26, *kunyarr-ju* 4.38)

The portmanteau *-(y)aru* incorporates plural and ergative morphology (*pani-yaru* 4.23). Relevant morphononological rules are outlined in §2.3.6 and §2.3.7.

The ergative case marks the subject of transitive verbs, instruments, as well as NPs and subordinate events associated with a transitive subject, in referential and C-complementiser function respectively.

4.3.2.1 Transitive subject

The primary function of the ergative is to mark the subject of a transitive (4.21), semitransitive (4.22) or ditransitive verb (4.23).

4.21 *nga-y=iny wira-nya, kajana-**ju** Ngujpan-**tu***
CAT-EP=3PL.O shoot-PST boy-**ERG** personal.name-**ERG**
'He shot them, the policeboy Ngujpan.' (FKNgi16)

4.22 *pani-**ngku**=palangka wulu-pa kampaja ngaja-nyarrinya*
s/he-**ERG**=3DU.OBL father-and mother cry-NARPST

*nganiji-**ju**, Kinyakarrartu*
whatsaname-**ERG** personal.name
'She was crying for her father and mother, whatsaname was, Patsy.' (1M58)

4.23 *linyju=ni-ya yita-ka-nya pani-**yaru***
police=3PL.S-EP give-AUX-PST s/he-**PL.ERG**
'They gave him to the police.' (H2)

The most common semantic role of ergative-marked arguments is agent. These can be animate (as in all examples above) or inanimate exerting no control (4.24-26). While some of these are perhaps ambiguous as instruments (§4.3.2.2), many, such as 'fog' (4.26), or 'wind' and 'blisters' which 'spear' an entity, cannot be interpreted as tools employed by an agent, and unlike instruments, can be registered by pronominal clitics.

4.24 *nyundyurn ñananya inbinya baga ñgu*
*nyunjurn nga=na=nya yinpinya paka-**ngku***
shin CAT=3SG.S=1SG.O spear.PST stick-**ERG**
'The stick hit my shin.' (McK:74)

4.25 *parra-**ngku**=na yinpinya pantu lakapa*
sun-**ERG**=3SG.S spear.PST MED fat
'The sun melted that fat.' (3Sen8)

4.26 *winy winy dyu ñandyurrunga* *madaññña*
*winy~winy-**ju*** *nga=Ø=nyjurrungka* *marta-nga*
fog~RDP-**ERG** CAT=3SG.S=1PL.IN.OBL cover-PRES
'The fog covers us.' (McK:66)

Ergative subjects can also have the semantic role of experiencer (4.27-28).

4.27 *ngaliyarra-**ju**=la* *nya-nya kunyarr*
you&I-**ERG**=1DU.IN.S see-PST dog
'We both saw the dog.' (2sen148)

4.28 *ngayu-**ngku*** *yakurr-ju-na=rna*
I-**ERG** no.good-AUX-PST=1SG.S
'I didn't want it.' (2sen192)

Optional ergativity is a regional phenomenon which takes semantic and pragmatic features such as animacy and focus into consideration when applying ergative marking (McGregor and Verstraete 2010). Not only is it sometimes added to subjects of intransitive verbs where it is not expected, but it can also be missing from the subjects of transitive verbs, particularly when they are free pronouns (§5.1) or demonstratives (§5.3). This is examined in §11.3.9.2.

4.3.2.2 Instrument

The ergative also marks instruments in clauses which take an ergative subject. In (4.29) both subject and instrument NPs are so-marked while in (4.30) the subject NP is elided.

4.29 *warlu-**ngku**=na* *jani-ma-narrinya* *kampaja-**ju***
fire-**ERG**=3SG.S cook-AUX-NARPST mother-**ERG**
'Mother would cook it with fire.' (1J89)

4.30 *wirrja-ngarrinya=rna=la* *jartarrangka warlu, pikal-**tu***
put-NARPST=1SG.S=3SG.OBL long.time fire shovel.coolamon-**ERG**
'A long time ago, I used to place fire on it, using a coolamon.' (HTK10)

As well as artifacts, substances and languages can also be coded as instruments.

4.31 *ngapa-**ngku**-ka-nku=n*
water-**ERG**-AUX-FUT=2SG.S
'You should make it wet.' (HTS73)

4.32 *Mangarla-**ju** nga=rna=ngka marra-n*
Mangarla-**ERG** CAT=1SG.S=2SG.OBL say-PRES
'I'm telling you in Mangarla.' (2R25)

Whether or not instrumental case is independent from the ergative, with a homophonous form, is unclear. Blake (1977:45) argues that there are grounds for distinguishing an instrumental case relation separate to the ergative when, as in Mangarla, the syntax treats them differently. Firstly, instruments are never registered by BPs, unlike ergative-marked agents, so in (4.29-32) the subjects (overt or elided) and not the instruments are cross-referenced in the BP complex. However, ambiguity arises when only one third person NP is expressed which may be interpreted as either the agent or an instrument. As Mangarla has no constraints against cross-referencing inanimates, the third person BPs in (4.33-34) could register either inanimate agents expressed by the NPs or unexpressed agents employing overtly expressed instruments, as shown in the alternative translations.

4.33 *karli-**ngku**-pa mangurl-**tu**-pa=ni yinpinya*
boomerang-**ERG**-and spear-**ERG**-and=3PL.S pierce.PST
Boomerangs and spears hit him.' /
'They hit him with boomerangs and spears.' (Ngi88)

4.34 *wira-nyarri=Ø warnku jungari-**ju** rawu-karra*
grind-IPFV=3SG.S stone pestle-**ERG** grist-MAN
'The top stone grinds it into meal.' /
'Someone grinds it into meal using a grinding stone.' (2R29)

Agents and instruments are differentiated in other ways. When both are expressed as NPs, they are always separated by other elements (4.29, 4.38-43). Finally, despite employing the same case-marking, the two can never be conjoined. The function of the conjoined NP in (4.33) may be ambiguous, but each coordinand must be of the same type, either instrument or subject. In Dyirbal, evidence for a distinction between ergative and instrumental also comes from derived intransitive constructions in which the ergative-

homophonous instrumental form is maintained (Dixon 1980:303). Mangarla has no derived intransitive constructions of this type. However, regular intransitive clauses employ the comitative (§4.3.9), not the ergative, to mark instruments, providing evidence that no instrumental case exists separately from the ergative.

Instruments in transitive clauses too, can take the comitative but a clearly referential ergative marker links the instrument to the agent wielding it (§4.3.2.3). Blake (1977:46) argues that Walmajarri, which uses this construction exclusively for alienable possessions, appears to lack instrumental case. In Mangarla, both strategies are available for instruments of all types, inanimate (4.29-32) or animate (4.36), alienable (4.35-36) or inalienable (4.37-38).

4.35 *karrpu-na=nany janga~janga-**artu-ju** panjurn-ta purlka-ngka*
bind-PST=3SG.S>3PL.O chain~RDP-**COM-ERG** wood-LOC big-LOC
'They tied them up to a big tree with chains.' (Ngi37)

4.36 *kurlmirri-ka-na nga=na=ngarniny yawarta-**artu-ju***
round.up-AUX-PST CAT=3SG.S=1PL.EX.O horse-**COM-ERG**
'He rounded us up with horses.' (3Sen11)

Simple ergative marking is preferred with inalienably possessed instruments such as body parts (4.37). However, some speakers also use the comitative construction (4.38).

4.37 *wuly-ju-narrinya=ngarni-ya=rna nimarrangka-**ju***
wet-AUX-NARPST=1PL.EX.S-EP=RR hand-**ERG**

wuly-ju-nu parrirl-pu-ngu
wet-AUX-INF alert-AUX-INF
'We used to wash ourselves, wetting and splashing with our hands.' (2R6)

4.38 *kunyarr-ju panaru-ju nga=na=ngka walja-ma-na makarra-**artu-ju***
dog-ERG MED-ERG CAT=3SG.S=2SG.OBL spill-AUX-PST tail-**COM-ERG**
'The dog spilled your (water) with his tail.' (3Sen22)

In both Walmajarri and Mangarla, the comitative plus ergative combination is not restricted to instruments. In (4.39-40) like-inflected nominals function as both ascriptive

modifiers and as instruments. However, again, the instruments always occur in separate NPs, while ascriptives can occur within the same NP as the head.

4.39 *baga dudyu ṉana dyiman dyimana mulnyi dyuladu dyu*
*paka-**artu-ju** nga=na jiman~jima-na mulnyi jurla-**artu-ju***
stick-**COM-ERG** CAT=3SG.S feel~RDP-PST soil blind-**COM-ERG**
'The blind man feels (*sic.*) his way across the ground with a stick.' (McK:69)

4.40 *jipi-ngku ngulyku-**yartu-ju**=na yinpinya=na patkurru*
man-ERG beard-**COM-ERG**=3SG.S spear-PST=3SG.S kangaroo.sp.

*mangurl-**tartu-ju***
spear-**COM-ERG**
'The man with the beard killed the kangaroo with a spear.' (3Sen40)

The ergative even appears to be optional with alienable instruments in a semantically and syntactically unambiguous function.

4.41 *nganyjurru-ju nga=la ma-nku paralu wirli~wirli-**yartu***
we.all.IN-ERG CAT=1PL.IN.S get-FUT catfish fishing.line~RDP-**COM**
'We will get a catfish with a fishing line.' (93sen19)

Speakers sometimes mix strategies. In (4.42) the ergative alone is used on the first mention of the instrument, but is combined with the comitative later, while in (4.43) the comitative alone is used first and the ergative later.

4.42 *kalp-**ju**=ngarni-ya=rnangka ma-ninya*
scalp(E)-**ERG**=1PL.EX.S-EP-RROBL get-NARPST

*kunyarr-**artu**[12]**-ju** kalp-**jartu-ju***
dog-**COM-ERG** scalp(E)-**COM-ERG**
'We got (things) for ourselves with scalps, using dog scalps. (FK46)

4.43 *tarta-**artu**, tarta-**ngku**=ngarningka ma-na*
scoop.coolamon-**COM** scoop.coolamon-**ERG**=1PL.EX.OBL get-PST

[12] The expected form of this suffix here would be *-jartu*. See §4.3.9

wakurr-ma-na=na, ngijakura-ju ngunurtu-ju
dig-AUX-PST=3SG.S I.GEN-ERG older.sister-ERG
'With a coolamon, she got it for us using a coolamon. She dug (for water), my big sister.' (1M16-17)

4.3.2.3 Referential use

Referential ergative marking links an NP to the subject of a transitive clause. These are often discontinuous NP elements (§9.5) or secondary predicates (§12.4) describing an attribute or simultaneous activity (4.44-47). The ergative marker often follows adnominal case such as comitative (shown with both instruments and attributes (4.39-40)), the allative (4.46), ablative (4.47), locative (§4.3.4), source (§4.3.7) and occasionally the genitive. Often, the argument on which an ergative-marked nominal is predicated is elided, or alternatively, the ascriptive functions as the argument (4.46-47).

4.44 *panaru-**ju** jipi-**ngku** nga=na kanti-na jurru purlka-**ngku***
MED-ERG man-ERG CAT=3SG.S hit-PST snake big-**ERG**
'That man, the big one, killed a snake.' (3Sen84)

4.45 ***paniyaru** nga=ni-ya=rna kurturtu-**ju** yarrka-ninya*
they.ERG CAT=3PL.S-EP=RR stomach-**ERG** throw-NARPST
'They welcomed each other.' (Ngi3alt)
(*lit.* 'Their feelings threw themselves.')

4.46 *wurna~wurna-**ngku** nguwi-n pantu-karti-**ju** ngurra-karti-**ju***
move.off~RDP-**ERG** return-PRES MED-ALL-**ERG** camp-ALL-**ERG**
'The one walking back to that camp does it.' (HTG204)

4.47 *dyidan ṉu dyu mai ṉaniya gunanyari*
*jitany-ngu-**ju** mayi nga=ni-ya kurna-nyarri*
seated-ABL-**ERG** veg.food CAT=3PL.S-EP ingest-IPFV
'While sitting down, they eat (*sic.*) the food.' (McK:51)
'Those sitting down ate the food.'

4.3.2.4 C-complementiser

As a C-complementiser, the ergative marks a subordinate verb in a perfect clause to show that its subject is coreferent with that of the main clause. C-complementisation occurs rarely, and only when misunderstanding is likely (§13.3.3.1). Subordinate verbs in purposive and temporal coincidence clauses are never marked in this way.

4.48 *milganyana* *yawada* *punganya anga dyu*
mil-ka-nya=rna *yawarta* *pungka-**nyangka-ju***
eye-AUX-PST=1SG.S horse fall-**INF.SRC-ERG**
'After I fell down, I saw the horse.' (McK:54)

4.3.3 Dative (DAT)

The dative is a grammatical case which occurs in a range of semantic and syntactic contexts to mark the oblique arguments of all types of predicate. Typically, these are not fully affected by the activity described by the predicate and may be selected obligatorily or optionally. However, some may be added to any semantically compatible clause as an unselected participant (§11.4), such as a beneficiary. Hence, a clause can have more than one dative argument with distinct functions.

4.3.3.1 Form

Two forms of the dative are found: the widespread Pama-Nyungan dative *-ku* and more commonly zero-marking, shown as ***-Ø*** in this section but generally unmarked elsewhere. A comparison of (4.50) with (4.49) shows that the two strategies are equivalent. In (4.49) the complement of the verb *yaji(pu)nga* is unmarked, while in (4.50) it's marked, but both are registered by oblique BPs.

4.49 *yaji-ngarri=**ja**=n-nga* *ngayu-**Ø***
wait-IPFV=**1SG.OBL**=2SG.S-EP I-**DAT**
'You are waiting for me.' (FKsen8)

4.50 *bani* *ñanadya* *yardyibuñari* *ñayu gu*
pani *nga=na=**ja*** *yaji-ngarri* *ngayu-**ku***
s/he CAT=3SG.S=**1SG.OBL** wait-IPFV I-**DAT**
'He is waiting for me.' (McK:17)

The overt *-ku* dative mostly occurs in the data of McKelson which was collected when Mangarla was a minority language in a mixed community, where all four other languages use this form. In the more recently collected Jarlmadangah corpus, *-ku* occurs only a few times. Its infrequent use in Mangarla has led both McKelson (1989a:4) and me to question *-ku* as a possible (re)borrowing, despite its status as a likely proto-Australian form (Dixon 1980:314). The unpredictable variation between overt marking and zero on dative NPs indicates a prior or ongoing loss of the ubiquitous *-ku* from Mangarla.

Zero-marked dative NPs are indistinguishable from those in the absolutive. However, in most instances, the dative is clearly differentiated from the absolutive as a grammatical category in the BP complex (§6). While absolutive nominals are registered by either subject or object BPs, dative arguments are generally registered by the oblique clitic series (§6.1.1.3). This is illustrated in (4.49), where the unmarked dative pronoun is registered by *=ja* [1SG.OBL] while in (4.51), the formally identical absolutive pronoun is registered by *=nya* [1SG.O]. For this reason, cross-referencing BPs are bolded along with the dative marker in this section.

4.51 *mil-ka-nya=**nya**=n* *ngayu-**Ø***
eye-AUX-PST=**1SG.O**=2SG.S I-**ABS**
'You saw me.' (G113)

Furthermore, when two datives (or obliques in general) co-occur, the presence of both is registered by the oblique2 clitic series (§6.1.1.4). In (4.52), the dative beneficiary NP is elided, but its person/number is registered by the oblique2 clitic which also references the dative complement selected by the verb, *nyaltu panjurn*.

4.52 *nyaltu-**Ø*** *panjurn-**Ø*** *nga=rna=**ngkala*** *yina-nku*
PROX-**DAT** wood-**DAT** CAT=1SG.S=**2SG.OBL2** name-FUT
'I'll say the name of this tree for you.' (HTS48)

Even so, distinguishing between unmarked dative and absolutive NPs in object function is not always unproblematic as BPs may be omitted when an argument is expressed by an NP (§6.2.1). This is particularly common for oblique arguments in the third person. The verb *yaji(pu)nga* 'wait' selects a dative argument which is registered as an oblique in (4.49-50) and (4.53). However, the absence of the BP in (4.54) makes the function of

the unmarked non-subject argument ambiguous, as either an absolutive object registered by *=Ø* or an unregistered dative oblique. This phenomenon may have led to errors in the analyses of the argument structures of a number of predicates (§11.3). Ambiguous forms are indicated by '?' in following sections where relevant. This problem does not occur when an overtly marked *-ku* dative NP goes unregistered (4.55).

4.53 *yaji-pu-ngarrinya=na=**la*** *pantu-**Ø***
wait-AUX-NARPST=3SG.S=**3SG.OBL** MED-**DAT**
'He was waiting for that one.' (93sen14)

4.54 *yaji-ngku=na* *pantu-**Ø***
wait-FUT=3SG.S MED-**?DAT/?ABS**
'He will wait for that one.' (FKsen1)

4.55 *gududu* *wandina* *manin gu* *murku yadu gu*
kurturtu *wanti=rna* *marnin-**ku*** *muku-yartu-**ku***
stomach be.PRES=1SG.S woman-**DAT** sick-COM-**DAT**
'I am sorry for that sick woman.' (McK:72)

The syncretism of dative and absolutive argument markers to ***-Ø*** in Mangarla is reminiscent of the historical phenomenon in Martuthunira, where the conflation of these two non-subject markers led to a broadening of the dative's function, and its reanalysis as an accusative marker (Dench 1995:71, 213). The functional differentiation was easily lost in Martuthunira which lacks the pronominal clitics that maintain it in Mangarla. However, the Mangarla dative, rather than expanding its influence, appears to be contracting, undifferentiated from the absolutive when BPs are omitted, or from a locative or other oblique argument when NPs are omitted, both extremely common occurrences.

4.3.3.2 Function

The semantic load commonly performed by the dative in Australian languages is spread, in Mangarla, across other cases having distinct functions or expanded roles, although these sometimes alternate with the dative. For example, with separate genitive (§4.3.8) and purposive (§4.3.10) forms available, the role of the dative in marking in these functions is limited. Furthermore, many predicates have multiple argument structures and can assign one of several cases as alternatives for the same role (§11.3.1). For example,

dative or locative (§4.3.4) case may mark an accessory with a motion verb or recipient with the verb *yunga* 'give'.

McKelson (1974:8-9) also notes that the 'dative presents a variety of forms'. He identifies the 'purposive dative' *-pirri*, which alternates with both *-ku* and the genitive *-kura* all being used in purposive and benefactive functions, while '[t]he ordinary dative as in the example, "give it to father," is regarded as a locative' (p. 8). His work also provides many examples, without comment, of unmarked NPs registered as obliques *i.e.* unmarked datives. As such a high degree of variation seems rather unusual, alternatives to the dative are indicated in the following description.

Dative arguments denote participants which are indirectly involved in an event. As Hosokawa (2011:244) observes, '[s]ometimes, subclassification of the meanings expressed by the dative is difficult to make, since the semantic roles are interrelated (and overlapping to a certain extent).' In most cases, dative NPs identify the target toward which an activity is directed, such as the goal of physical and information transfers or the target of incompletely effected acts (§4.3.3.2.1) and psychological states (§4.3.3.2.2). They can denote an endpoint, accessory or other associated participant, particularly with verbs of motion or stance (§4.3.3.2.3). Finally, a dative beneficiary/maleficiary (§4.3.3.2.4) can be added to any semantically compatible predicate.

4.3.3.2.1 Goal

The oblique goal/recipient selected by **ditransitive verbs** (§11.3.8), traditionally referred to as 'indirect object', is often an unmarked dative. Most ditransitive verbs have alternative argument structures (§11.3.7, §11.3.8). Often the locative marks these arguments. The two verbs meaning 'give' in Mangarla may assign locative (4.96), or absolutive (4.20) case to a recipient, but the dative is only found on recipients with 3SG or 3PL referents. This is perhaps influenced by Walmajarri (and other Ngumpin languages) where an unmarked 'absolutive' NP with a 3SG referent in the role of recipient is registered by a dative clitic (Tsunoda 1981:115).[13]

[13] Hudson (1978:26) does not address the fact that 3SG recipient NPs in the role of recipient are registered by a dative clitic in Walmajarri. However, examples in that work clearly show this to be the case.

4.56 *jurrungkul-ma-n nga=na=**la** nyalartu-**Ø***
show-AUX-PRES CAT=3SG.S=**3SG.OBL** PROX-**DAT**
'She shows it to this one here.' (PSh44)

4.57 *wulu-**Ø** yu-wa=**la** kartak*
father-**DAT** give-IMP=**3SG.OBL** cup
'Give the cup to Dad.' (H7)

However, most **locutionary verbs** can select an optional dative complement.

4.58 *marana balanga dyurar gu waɲal gu*
*marra-na=**palangka** jurarr-**ku** wangal-**ku***
say-PST=**3DU.OBL** sea-**DAT** wind-**DAT**
'He spoke to the sea and wind.' (McK:RT)

4.59 *nyaltu mininy=ngarni=**ngka** marra-narri nyuntu-**Ø***
PROX language=1PL.EX.S=**2SG.OBL** say-IPFV you.SG-**DAT**

*parnany-**Ø** warri-na-angka=n-nga mininy-**ku** Mangarla-**ku***
old.woman-**DAT** seek-PST-SRC=2SG.S-EP language-**DAT** Mangarla-**DAT**
'We are telling this story to you, old woman, who have come looking for Mangarla language.' (1D46)

Many **semitransitive verbs** (§11.3.6) are subcategorised for a dative complement which denotes the goal of an activity such as waiting (4.49-50). In (4.59), the *-ku* marked dative NP functions as the complement of a semitransitive verb in a subordinate clause controlled by an unmarked main clause dative NP.

A dative complement may replace an absolutive one with some transitive verbs to denote an intended goal or purpose.

4.60 *ladyurala ŋaba gu*
*laju-rra=**la** ngapa-**ku***
dig-IMP=**3SG.OBL** water-**DAT**
'Dig for water.' (McK:162)

Alternatively, a dative complement may indicate that an action is incompletely effected or otherwise moderated (§11.3.6). These 'conative constructions' often translate with 'almost', 'in vain', or 'VERB at', (*e.g.* 'hit at' rather than 'hit', 'decorate, paint/engrave patterns on' versus 'create' *etc*.).

4.61 *didirb ñanala* *inbinya guwi*
*titirrp nga=rna=**la*** *yinpinya kuwi-**Ø***
in.vain CAT=1SG.S=**3SG.OBL** spear.PST meat-**DAT**
'In vain I speared the game.' (McK:125)

4.62 *wipirtijina nga=pala=**la*** *kurna-na kuwi-**Ø*** *panarta-**Ø**,*
little.bit CAT=3DU.S=**3SG.OBL** eat-PST meat-**DAT** MED-**DAT**

*ngalyak-**Ø***
shingle.back.skink-**DAT**
'They ate a little bit of that lizard.' (MC55)

4.3.3.2.2 Focus of cognitive and affective states

Nominal predicates (§12.3) and extended intransitive verbs, often derived by the inchoative (§11.3.4) or employing copulas (§12.1), which describe psychological states can select non-subject arguments in the locative, purposive or dative case. These can denote a field of knowledge or ignorance (4.63), the focus of an emotional state (4.64), or the object of desire, longing or need when used with stative/copula verbs (4.65).

4.63 *ngayu ngurrpa=rna=**palangka*** *panartarra-**Ø***
I ignorant=1SG.S=**3DU.OBL** MED.DU-**DAT**
'I was ignorant of those two.' (1J21alt)

4.64 *rain darinyana* *gunyar gu*
rayin-tarri-nya=rna *kunyarr-**ku***
fear-INCH-PST=1SG.S dog-**DAT**
'I am (*sic*) frightened of the dog.' (McK:52)

4.65 *wai ñanña* *dyari* *gagir gu*
wayi nga=n-nga *jarri* *kakirr-**ku***
Q CAT=2SG.S-EP INCH.PRES egg-**DAT**
'Do you want an egg?' (McK:103)

In these roles, a range of marking and cross referencing strategies are used: an unmarked dative NP is registered by an oblique BP in (4.63), while the marked dative NPs in (4.64-65) are not. In (4.66), neither NP nor BP is overtly marked, once again illustrating the ambiguity between 3SG objects and dative obliques described previously.

4.66 *dalu na dyari bandu manin*
*tarlu=rna jarri pantu marnin-**Ø***
shame=1SG.S INCH MED woman-**?ABS/?DAT**
'I get shame for that woman.' (McK:159)
(*lit*. 'I'm shy of that woman.')

4.3.3.2.3 Accessories and associated participants

Accessories often occur with verbs of stance and motion (§11.3.4) and can be marked in a range of cases including the dative. They are participants who are indirectly involved with, but nevertheless play a central role in, the main event. In (4.67), the speaker and his siblings provide motivation for the event. In (4.68), the snake is not a simple location, (although it might alternatively be marked by the locative); its presence is central to the activity and it has the potential to rise up and cause trouble.

4.67 *ngalyarra-**Ø**=**yarrangka** wanyju kampaja wani-nyarrinya*
s/he&I-**DAT**=**1DU.EX.OBL** one mother be-NARPST
'One mother lived with us two.' (FK22)

4.68 *murta=la=**la** wanti kankara-ngu nyaltu-**Ø** jurru-**Ø***
nothing=1PL.IN.S=**3SG.OBL** be.PRES above-ABL PROX-**DAT** snake-**DAT**
'We are right above this snake.' (MC11)

Accessories are often participants involved in a secondary but unspecified activity. In (4.69), the subject plans to work on the *marlpurlu* while in (4.70), the implication is that the cooked meat is brought to share.

4.69 *purta-nyinya=na=**la** marlpurlu-**Ø***
come-NARPST=3SG.S=**3SG.OBL** baby.carrier-**DAT**
'He would come with the baby carrier.' (HTS21)

4.70 *pukarr-**Ø*** *nga=na=**la*** *purta*
cooked.meat-**DAT** CAT=3SG.S=**3SG.OBL** come.PRES
'He comes with ready-cooked meat.' (2R17)

With transitive verbs, associated participants in the dative (or genitive) are more clearly identified with the purpose of the activity described, perhaps providing motivation for it (§11.4.3).

4.71 *ngulartu* *laju-na=rna=**la*** *pirti* *panartu-**Ø***
finish dig-PST=1SG.S=**3SG.OBL** hole-ABS MED-**DAT**
'Alright. I dug a hole for (cooking) that one.' (HTD80)

4.3.3.2.4 Beneficiary/maleficiary

Non-selected participants who benefit from or are adversely affected by an act are marked by dative (4.72) or genitive case (§4.3.8). The beneficiary in (4.73) is unregistered in the BP complex despite being animate, while the lack of a case-marked NP in (4.74) makes the oblique BP ambiguous, as per the second translation which could be interpreted literally as an affected location (§4.3.4.2) or metaphorically, as a maleficiary (as intended). The overlapping nature of the semantic roles of beneficiary and recipient/goal can be seen in (4.75).

4.72 *ngayu-ngku=rna=**ngka*** *jani-ma-nku* *nyuntu-**Ø***
I-ERG=1SG.S=**2SG.OBL** cook-AUX-FUT you.SG-**DAT**
'I will cook for you.' (FKsen48)

4.73 *ganyin* *ṉaniya* *malulu-gu*
kanyi-n *nga=ni-ya* *marlulu-**ku***
dance-PRES CAT=3PL.S pre-initiate-**DAT**
'They are dancing for that *malulu* (initiation candidate).' (McK:146)

4.74 *panjurn* *nga=na=**ja*** *pungka-nya*
wood CAT=3SG.S=**1SG.OBL** fall-PST
'Unfortunately for me, the thing fell down.' (H33)
'The thing fell on me.'

4.75 *yargarala* *fowl gu* *ralyu ralyu!*
*yarrka-rra=**la*** *pawul-**ku*** *ralyu~ralyu*
throw-IMP=**3SG.OBL** fowl(E)-**DAT** lungs~RDP
'Throw the lungs to the fowls!' (McK:76)

4.3.4 Locative (LOC)

The locative suffix occurs on NPs functioning as spatial and temporal adjuncts, oblique arguments and predicates. It patterns like the ergative, but with a low final vowel. It has three allomorphs:

-ngka	on stems of fewer than three syllables ending in a vowel (*yala-ngka* 4.76)
-ta	on stems ending in C [+apical, -rhotic] (*kuliman-ta* 4.77, *panjurn-ta* 4.106)
-ja	elsewhere (*purnkurr-ja* 4.76, *marlpulu-ja* 4.77)

Combinations of plural or comitative markers with the locative undergo syllable reduction (§2.3.6, §2.3.7) to produce the portmanteau *-(y)ara* (4.78-79).

4.3.4.1 Spatial and temporal setting

The primary function of the locative is to mark the location of a person, object or event in space or time. It generally marks all elements in the NP and can translate as 'in', 'on', 'at', 'by', 'beside' *etc*.

4.76 *jani-ma-narri=na,* *yala-**ngka*** *purnkurr-**ja*** *ngurra-**ngka***
cook-AUX-IPFV=3SG.S DIST-**LOC** shade-**LOC** camp-**LOC**
'He is cooking it way out there in the shade in camp.' (HTG182)

4.77 *nyaltu=na* *wupa* *purta-nya=na* *malpurlu-**ja*** *kuliman-**ta***
PROX=3SG.S small come-PST=3SG.S baby.carrier-**LOC** coolamon(K)-**LOC**

Harry Watson
personal.name
'This one came as a little baby in a coolamon, Harry Watson.' (1P50)

4.78 *yu-ngarrinya=ngarninya* *ngurtin-pa* *ngurtin-pa* *kulpi-**yara***
give-NARPST=1PL.EX.O alone-and alone-and scoop.coolamon-**PL.LOC**

kulpi
scoop.coolamon
'She used to give them to us each in small bowls.' (1J107)

The comitative plus locative portmanteau, *-(y)ara* [*-(y)artu-ja*] is commonly found with demonstratives which are often re-marked with the locative (§5.3.4.3).

4.79 ***nyalara***=*na* *wani-nya,* ***nyalara-ja***=*na* *wanti*
PROX.LOC=3SG.S be-PST **PROX.LOC-LOC**=3SG.S be.PRES
'It was here. It is here.' (MC1-2)

Affected locations such as those selected by verbs of motion or physical transfer can be registered in the BP complex. In (4.80), this is the possessor of the affected body part.

4.80 *mil da nadya* *gundina* *dyirmil*
*mil-**ta**=na=**ja*** *kurnti-na* *jirrmil*
eye-**LOC**=3SG.S=**1SG.OBL** enter-PST sweat
'The sweat gets (*sic*.) in my eye.' (McK:143)

4.81 *yalparra jurra-nku=rna=**la*** *ngapa pulawa-**ja***
again pour-FUT=1SG.S=**3SG.OBL** water flour(E)-**LOC**
'I will pour more water into the flour.' (HTD20alt)

Modes of transport and communication are also in the locative.

4.82 *wurna=la* *partu,* *murtika-**ja**-ka-na=ni=iny*
move.off=1PL.IN.S go.FUT car(K)-**LOC**-AUX-PST=3PL.S=3PL.O
'"Let's go." They took them in the car.' (PSh36)

4.83 *nyalara-ja=pa-n* *mili~mili-ja* *wirrja-nku*
PROX-LOC=ASSERT=2SG.S paper~RDP-LOC put-FUT

*nyuntu-kura-**ja*** *mininy-**ja***
you.SG-GEN-**LOC** language-**LOC**
'Here on this paper, you will put it in your language.' (1D73)

The locative also relates events and participants to points in time and weather conditions.

4.84 *mininy kujarra=na waji-ma-n janyja-**ngka** Mangarla-pa Nyikina*
language two=3SG.S keep-AUX-PRES today-**LOC** Mangarla-and Nyikina
'They keep two languages today, Mangarla and Nyikina.' (1D97)

4.85 *yurrany~yurrany-**ja**-n-marta rakarra-**ja** kamurra kamurra kamurra*
sunrise~RDP-**LOC**-EP-CPR first.light-**LOC** uncertain uncertain uncertain

*pirriya-marta-**ja,** pirriya-**ja**=ngarni kapa-narrinya panartu*
cold-CPR-**LOC** cold-**LOC**=1PL.EX.S sit-NARPST MED
'In the early morning, just as it started to get light, when it was cooler, in the cool we'd stay there.' (1J33)

Nominals with an inherent locational sense are often unmarked by the locative case (§3.2.2), although temporals are more frequently inflected than spatial terms. Cardinal directions never take the locative case and for other STLs it is optional or alternative forms are used (*e.g. kanka* 'top' > *kankarni/kankara* 'up, on top, above'). Compare its use in (4.84) and (4.87) with (4.86) and (4.88) where it is omitted.

4.86 *wajarri=lparri=na wantayi **janyja***
NEG=ASSERT=3SG.S be.NPIRR **today**
'Nobody is there today.' (1D51)

4.87 *paparla-arti murrkun nga=ni wani-nya panara **kaniny-ja***
elder.brother-PL three CAT=3PL.S be-PST MED.LOC **below-LOC**
'Three older brothers stayed down there below.' (1J5)

4.88 *nyaltu-arra=pala wani-nya, paparla-arra kujarra **kaniny***
PROX-DU=3DU.S be-PST elder.brother-DU two **below**
'The other two brothers stayed down there.' (1J7)

Locative case can also be optionally omitted from general nominals which clearly refer to a location (4.89-90, 4.106).

4.89 *pirra=ni wanti*
bush=3PL.S be.PRES
'They are staying in the bush.' (PSh143)

4.90 *unandya ṉana wandi mulnyi*
wunanja nga=na wanti mulnyi
frog CAT=3SG.S be.PRES soil
'The frog is in the ground.' (McK:81)

Locative-marked nominals often combine with other STLs in a complex NP.

4.91 *murta=la=la wanti kankara-ngu jamayina-**ja***
nothing=1PL.IN.S=3SG.OBL be.PRES above-ABL axe-LOC
'We are right above the axe.' (MC11alt)

4.92 *lunguda ṉana wandi ganiny dyadu bidi nga gunur dya*
lungkurta nga=na wanti kaniny-jartu pirti-ngka kunurr-ja
blue-tongue.lizard CAT=3SG.S be.PRES below-COM hole-LOC antbed-LOC
'The blue tongue is in its hole inside the antbed.' (McK:81)

4.3.4.2 Goals and focal points

The locative can mark entities in reference to their location (4.93-94), to express accessories or goals.

4.93 ***nyalara*** *nguju wulu-**ngka**-pa kampaja-**ja**=ngarni wantu*
PROX.LOC REC father-**LOC**-and mother-**LOC**=1PL.EX.S be.FUT
'We want to stay right here with our father and mother.' (1M67)

4.94 *kuwi-**ngka**=lku=na ya-narrinya*
meat-**LOC**=RESTR=3SG.S go-NARPST
'He went right to the place where we get meat.' (2J17)

The locative on such entities, mostly animate, often alternates with the allative or dative. This might be the focus of an affective state (4.95 - *cf.* 4.64), the goal of ditransitive (4.96 - *cf.* 4.57, 4.97) and semitransitive verbs (4.98 - *cf.* 4.53).

4.95 *rayin nga=ni-ya jarri-nyinya wayitpal-**ta***
fear CAT=3PL.S-EP INCH-NARPST whitefella(E)-**LOC**
'They were afraid of the whitefella.' (Ngi16)

4.96 *ngapa yu-wa pani-**ngka***
water give-IMP s/he-**LOC**
'Give water to him.' (93sen2)

4.97 *mininy-pu-ngku=rna tija-**ngka** ngayu-ngku*
language-AUX-FUT=1SG.S teacher(E)-**LOC** I-ERG
'I will talk to the teacher.' (93sen56)

4.98 *ngayu-ngku=rna=**la** yaji-pu-ngku kampaja-**ja***
I-ERG=1SG.S=**3SG.OBL** wait-AUX-FUT mother-**LOC**
'I will wait for mother.' (FKsen43)

While some speakers reject the locative alternative with certain verbs, there seems to be no difference in meaning or cross-referencing between locative and dative variations for those who accept both. The interchangeability of the two may stem from dialectal differences, but Hudson (1978:65) also notes that some verbs in Walmajarri choose either dative or locative to mark indirect objects, although these are not as numerous their Mangarla counterparts.

A locative can also be used in place of an expected absolutive non-subject argument with a few verbs, particularly involving perception, with the same attenuating effect as the dative in conative constructions (§4.3.3.2.1). In (4.99), *mil-kanga* 'see' is used to mean 'look at, watch'.

4.99 *nga=rna=**la** wulu-**ngka** mil~mil-ka-ngarrinya pirti-ma-nu-karra*
CAT=1SG.S=**3SG.OBL** father-**LOC** eye~RDP-AUX-NARPST create-AUX-INF-MAN
'I watched my father chiselling.' (HTS5)

Two semitransitive verbs depicting psychological states, however, select only locative complements. They are *pap-pun* 'forget about' and *ningarra-kan* 'believe (in)'.

4.100 *wajarri=rna=**la** ningarra-ka-ntama ngayu-ngku pani-**ngka***
NEG=1SG.S=**3SG.OBL** true-AUX-PSTIRR I-ERG s/he-**LOC**
'I did not believe him.' (3Sen61)
(*lit.* 'I did not put truth in him.')

4.101 *ulyu nga balala babuna*
*wulyu-**ngka**=pala=**la** papu-na*
good-**LOC**=3DU.S=**3SG.OBL** forget.AUX-PST
'They forgot what was good.' (McK:RT)
(*lit.* 'They forgot about the good.')

4.3.4.3 Concurrent states

Certain locative-inflected nominals ascribe states or secondary activities to a clausal participant (§12.4). These are used in non-verbal and copula clauses or as secondary predicates in verbal clauses.

4.102 *jiya-nu nyuntu ngaliyarra kulu-**ngka***
follow-INF you.SG you&I together-**LOC**
'(Me) following you, we'll go together.' (HTS56)

4.103 *kakurtu pantu=ngarni mininy-pu-nga wanyju-**ngka** wakaj-kuyarra*
finish MED=1PL.EX.S language-AUX-PRES one-**LOC** complete-every
'That's all, we all speak as a mob united.' (2D75)

4.104 *kamurra nyuntu=n ya-nku-yangka ngurtin-**ta***
uncertain you.SG=2SG.S go-FUT-SRC alone-**LOC**

mil-ka-ngku=n pantu panjurn
eye-AUX-FUT=2SG.S MED wood
'Maybe when you go on your own, you will see that tree.' (HTS92)

Locative-marked action/manner nominals indicate secondary activities which are stative in nature. When predicated on transitive subjects, they generally carry referential ergative marking. The next sentence shows locative NPs in two functions; one, *wulungka*, acts as an oblique goal while the other, *karringkaju*, is marked by the ergative to ensure its correct identification with the subject of the clause.

4.105 *minin binyala wulu nga garinga dyu*
*mininy-pinya=rna=la wulu-ngka karri-**ngka-ju***
language-AUX.PST=1SG.S=3SG.OBL father-LOC standing-**LOC-ERG**
'While standing, I spoke to father.' (McK:50)

4.106 *pirra=ni karri karnti-**ngka** panjurn-ta*
bush=3PL.S stand.PRES climbing-**LOC** tree-LOC
'They are in the bush, climbing a tree.' (PSh168b)

In Mangarla, the locative is never found on nominalised verbs in subordinate constructions, unlike many of its neighbours where locative-homophonous forms function as complementisers in participial constructions (Austin 1981). However, some action/manner nominals found in this function are also classified as verbs, including those in (4.105-106).

4.3.5 Allative (ALL)

The allative has two forms: *-karti* is used with all nominal types with the exception of some directionals which have a special form *-kurna*. The latter only indicates directionality while the general allative also marks oblique arguments. It indicates that an action is directed towards an entity and marks goals such as recipients, accessories and addressees as well as places. Only human goals are ever registered in the BP complex with an oblique clitic, but this is optional (4.114). Used adnominally, it derives ascriptives and predicational nominals.

4.3.5.1 Destination

It may suffix non-human (4.107-108) and human (4.109-110) destinations, generally marking all the elements of the NP.

4.107 *parti-nya=rna pantu-**karti** yini-**karti** mayaru-**karti** Lungkayi-**karti***
go-PST=1SG.S MED-**ALL** name-**ALL** house-**ALL** placename-**ALL**
'I went to that place, to the station-house called Luluigui.' (FK40)

4.108 *nguwi-n=ngarni kuwi-yartu yala-ngu pantu-**karti***
return-PRES=1PL.EX.S meat-COM DIST-ABL MED-**ALL**

*ngapa-**karti** manyjarta-**karti***
water-**ALL** water.trough-**ALL**
'We return from there with meat (and go) to that water in the coolamon.'
(2R14b)

4.109 *ka-wa=rni ngayu-**karti** mili~mili*
bring-IMP=hither I-**ALL** paper~RDP
'You lot bring paper here to me.' (2sen218)

4.110 *wayitpal-tu=ngarniny wajarri ngunyi-ma-narri-ma wulu-**karti**-pa*
whitefella(E)-ERG=1PL.EX.O NEG send-AUX-IPFV-PSTIRR father-**ALL**-and

*kampaja-**karti**-pa*
mother-**ALL**-and
'The whitefella wouldn't let us go to our father and mother.' (1M50alt)

Proper names inflect for the allative in the same way as other nominals (4.107, 4.112) and as for other local cases, spatial terms (underlined below) can supplement an allative NP to refine a destination.

4.111 *nguwi-narrinya=ngarni ngapa-**karti**, <u>kaniny-jurra</u>*
return-NARPST=1PL.EX.S water-**ALL** <u>below-down</u>
'We went back down to the water with our scoops.' (1M15)

4.112 *kurlila-ngu yala-ngu=na jurr-ka-narrinya <u>kaniny-parrakurna</u>*
south-ABL DIST-ABL=3SG.S descend-AUX-NARPST <u>below-downwards</u>

*<u>warlparni-ngarra</u> Martuwarra-**karti***
<u>to.here-about</u> Fitzroy.River-**ALL**
'From way out in the south, they came down around here to the river.' (1D5)

Most directional terms do not inflect with the regular allative suffix (which means 'side' when used on directional terms - see §4.3.5.3) but can take a set of directional suffixes specific to them, including the directional allative *-kurna* 'wards' (4.113) which takes the form *-parrakurna* 'downwards' with *kaniny* 'below' (4.112).

4.113 *wulu-ngku ngijakura-ju=na kanti-na panara jurru yalinyja-**kurna***
father-ERG I.GEN-ERG=3SG.S hit-PST MED snake north-**wards**
'Towards the north, my father killed a snake.' (1P60)

4.3.5.2 Goals and targets

In addition to local destinations used with verbs of motion and physical transfer, the allative marks accessories and intended targets of other activities, such as communication, when it often alternates with the dative and/or locative.

4.114 *wulu=na=ngarningka kapa-narrinya nganarni-**karti***
father=3SG.S=1PL.EX.OBL sit-NARPST we.all.EX-**ALL**
'Father would come and sit with us.' (1J79alt)

4.115 *ngayu-ngku=rna=nyurruny jakurl-ka-nku maaja-**karti***
I-ERG=1SG.S=2PL.O report-AUX-FUT master(K)-**ALL**
'I will tell the boss on you lot.' (93sen62)
(*lit.* 'I will report you to the boss.')

4.116 *bani ngu ñanadya yarganari ñayu gadi maṉurl*
*pani-ngku nga=na=ja yarrka-narri ngayu-**karti** mangurl*
s/he-ERG CAT=3SG.S=1SG.OBL throw-IPFV I-**ALL** spear
'He is throwing a spear at me.' (McK:17)

An allative-marked nominal can indicate an intended purpose or activity, particularly on an action nominal (*witi-karti* [play-ALL] 'to play cards', *lampu-karti* (4.118)). On an entity indicating the purpose of the journey in (4.117), the allative can alternate with the locative (*cf.* 4.94). In (4.118) the allative occurs twice, once marking a destination and once, a purpose.

4.117 *kuwi-**karti**=ni ya-nku*
meat-**ALL**=3PL.S go-FUT
'They will go to get meat.' (PSh2)

4.118 *jipi=na parti-nya ngurra-**karti** lampu-**karti***
man=3SG.S go-PST camp-**ALL** sleep-**ALL**
'The man went to the camp to sleep.' (2sen211)

4.3.5.3 Qualitative states

Allative marked NPs can ascribe a quality to a participant. *Yangka-karti* [behind-ALL] translates both as the spatial 'to the back' and temporal 'later, last'.

4.119 *nyaltu mininy wajarri wanyjirra-**karti**-pa*
PROX language NEG other-**ALL**-and
'This language is not mixed up with another.' (2D6)

4.120 *kamurra nyalartu=na wanti yangka-**karti***
uncertain PROX=3SG.S be.PRES behind-**ALL**
'Perhaps this one is the last born.' (PSan71)

4.121 *wanyju-**karti** nga=rna=ngka marra-narri nyalartu*
one-**ALL** CAT=1SG.S=2SG.OBL say-IPFV PROX
'I'm telling you this one way.' (2D25)

When this participant is the subject of a transitive verb, the ergative is added in agreement.

4.122 *panartaru=ni=iny jiya-narrinya yangka-**karti-ju***
MED.PL.ERG=3PL.S=3PL.O follow-NARPST behind-**ALL-ERG**
'Those ones followed behind them.' (Ngi12)

This use of the allative in Karajarri and Nyangumarta is described as indicating a resultant state (Sharp 2004:138). In Mangarla, examples like these tend to relate to time and space (*e.g. purlka-karti* [big-ALL] 'wide') and it seems semantically plausible that they may be derived with the homophonous suffix used on directionals and translated as 'side'. This is shown in (4.123a) in contrast to the directional allative *-kurna*. An epenthetic nasal often precedes *karti* 'side'. I have always recorded this as velar but McKelson (1974) records it as apical (4.125).

4.123 *a) kanka-ng-karti*
top-side
'top side/ up on top'

b) kankarni-kurna
up.top-wards
'up to(wards) the top'

4.124 *kila~kila-**ng-karti**, ralinya-**ng-karti** nga=pala ka-nya, wanyjirra-arra-ju*
south~RDP-**EP-side** north-**EP-side** CAT=3DU.S take-PST other-DU-ERG
'(They went east) along the south side while the other two took the north side.' (Nya13alt)

4.125 *a) ralinyan gadi*
*ralinya-**n-karti***
north-**EP-side**
'on the north side' (McK:68)

b) garan gadi
*kara-**n-karti***
west-**EP-side**
'on the west side' (McK:124)

While the two suffixes seem to be cognates, any synchronic relationship between the two is as yet undetermined and there are times when meanings overlap and derivations are ambiguous.

4.126 *a) jampu-**karti***
left-**side**
'left hand side'
'to the left'

*b) marrja-**karti***
powerful-**side**
'right hand side'
'to the right'

4.3.6 Ablative (ABL)

The ablative case expresses the starting point from which an activity or entity proceeds. It has a single form, *-ngu*, which is used on all types of nominals in adjunct and argument functions in much the same way as the other two spatial cases, locative and allative.

4.3.6.1 Starting point

The ablative is chiefly used to describe the location from which an entity moves. This may be attached to a general nominal, proper name, demonstrative or spatial locator.

4.127 *ngulartu kapa-narrinya Tapari yala-**ngu** pirra-**ngu***
finish sit-NARPST personal.name DIST-**ABL** bush-**ABL**
'Finish. Peter Clancy came home from way out bush.' (2J121)

4.128 *kakarra-**ngu**=ni nguwi-na paniyarti Lungkayi-**ngu***
east-**ABL**=3PL.S return-PST they placename-**ABL**
'They came back from the east, from Luluigui Station.' (1M78)

4.129 *kaniny-jartu-**ngu**=na* *kurrka-yi-n* *panartu,* *pirti-**ngu***
below-COM-**ABL**=3SG.S rise-AUX-PRES MED hole-**ABL**
'It gets up from inside, from the hole.' (PSan60)

Ablative-inflected nominals can modify another nominal within the same NP, and marked in agreement with the head.

4.130 *mulnyi=lku=ni-ya* *wanyja-na-angka* *kurlila-**ngu**-ju-pa*
soil=RESTR=3PL.S-EP leave-PST-SRC south-**ABL**-ERG-and

yakurr-mapu-ju *kartu-ngku-pa*
no.good-good-ERG child-ERG-and
'All those old people and children from the south have left their country.'
(2D74)

Temporal expressions which employ the ablative are unusual, with the source suffix preferred for this function. The same stem in (4.131) employs the allative to create the opposite meaning, 'later', in (4.120).

4.131 *yangka-**ngu*** *wulu-pa* *kampaja-pa* *yap,*
behind-**ABL** father-and mother-and leave.behind

nga=ni=ngarniny-ya *wanyja-na*
CAT=3PL.S=1PL.EX.O-EP leave-PST
'Earlier on, father and mother had taken off and left us.' (1M27-28)

On demonstratives, the ablative can also have a temporal sense and, like the source suffix, derives sentence particles used to link clauses within a text (§5.3.6.2).

4.132 *panaru-**ngu*** *wurna,* *wurna=na* *kurrka-yi-nku*
MED-**ABL** move.off move.off=3SG.S rise-AUX-FUT
'After that he will walk, will get up and go.' (HTG170)

4.133 *nyalaru,* *nyalaru-**ngu**=na* *wantu*
PROX.ABL PROX-**ABL**=3SG.S be.FUT
'Now, for now, he will stay.' (HTG21)

The ablative case can also mark animate starting points. Registration of ablative-marked nominals in the BP complex is uncommon except when the NP is human.

4.134 *marra-nku=ja=n yalparra=n-nga mininy jarri-yangka*
say-FUT=1SG.OBL=2SG.S again=2SG.S-EP language INCH.FUT-SRC

*ngayu-**ngu***
I-**ABL**
'You will tell me later, if you want more language from me.' (1D113)

4.135 *pantu janga~janga piji-**ngu**=nanyala yinjil-ma-na*
MED chain~RDP neck-**ABL**=3SG.S>3PL.OBL2 release-AUX-PST
'He took that chain off their necks.' (Ngi58)

4.136 *ma-nu panartu nyalartu jarla, nyalaru-**ngu***[14]
get-INF MED PROX excrement PROX-**ABL**

*kankarni-**ngu** marrnga~marrnga, marrnga~marrnga-**ngu***
up.top-**ABL** chest~RDP chest~RDP-**ABL**
'Getting that one, this guts, from here high up in the abdomen, from the abdomen.' (HTG40-42)

The ablative can indicate the point of attachment when a body part used as an instrument.

4.137 *ngurlpurru-**ngu**=n kitarr-ka-nku*
tail-**ABL**=2SG.S pull-AUX-FUT
'You will pull it by the tail.' (HTS89)

4.138 *pulijiman-tu nga=ngarniny ma-na,*
policeman(E)-ERG CAT=1PL.EX.O get-PST

*nimarrangka-**ngu**=ngarniny ma-na*
arm-**ABL**=1PL.EX.O get-PST
The policeman grabbed us, he had us by the arms.' (1M31)

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[14] The nonfinite verb here is used as part of a clause chain (§13.2.1).

A starting point does not always relate to entities, space or time but like the allative can refer to a state which is the starting point of a future activity.

4.139 *lampu-**ngu** nga=rna kurrka-yi-nku*
sleep-**ABL** CAT=1SG.S rise-AUX-FUT
'I will wake up from sleep.' (3Sen9)

4.3.6.2 Concurrent states

On action nominals, the ablative often describes a quality, state or secondary activity concurrent with the main activity. While most activities performed in an upright stance take the locative in this function (§4.3.4.3), many with the ablative involve sitting or lying. Those predicated on a transitive subject can be further inflected with referential ergative case to avoid misinterpretation.

4.140 *milganyana lambu rnu dyu mili mili*
*mil-ka-nya=na **lampu-ngu-ju** mili~mili*
eye-AUX-PST=3SG.S **lie-ABL-ERG** paper~RDP
'While lying down, he looked at the paper.' (McK:51)

4.141 *minin binyanala dyidan rnudyu*
*mininy-pinya=rna=la **jitany-ngu-ju***
language-AUX.PST=1SG.S=3SG.OBL **seated-ABL-ERG**
'While sitting down, I spoke to him.' (McK:50)

4.142 *panartarra-ju=pala jinya-narrinya panjurn wurna-**ngu**~wurna**ngu***
MED.DU-ERG=3DU.S trim-NARPST wood move.off-**ABL**~RDP
'Those two were sharpening a stick as they walked along.' (G16)

4.3.7 Source (SRC)

The source marker is a multifunctional suffix with four allomorphs, one of which, *-yangka*, is homophonous with the STL 'behind', a possible historical source for the case-marker. It is subject to a number of morphophonemic changes (§2.3.7):

-yangka on stems ending in /i/ and most ending in /u/
(*mulnyi-yangka* 4.143, *kajalu-yangka* 4.148)

-angka	on stems ending in /a/ and optionally on those ending in /u/ after segment deletion (*Kulkarriya-angka* 4.144, *ngay(u-y)angka* 4.145)
-jangka	on stems ending in C [-alveolar], [+rhotic] (*yurrany~yurrany-jangka* 4.149, *lintij-jangka* 4.152)
-tangka	on stems ending in C [+alveolar, -rhotic] (*marnin-tangka* 4.150)

4.3.7.1 Origin

This suffix marks an NP which denotes the provenance or original state of an entity. Its use sometimes overlaps with the ablative (§4.3.6- *e.g.* compare (4.145) with (4.134)) but the source marker is rarely used to indicate a starting location or with verbs of motion.

Provenance:

4.143 *wirrpan* *mulnyi-**yangka,*** *mulnyi-**yangka**=ngarni-ya* *witij-ju-narrinya*
bush.onion soil-**SRC** soil-**SRC**=1PL.EX.S-EP dig-AUX-NARPST
'Bush onion is from the soil; we used to dig them from the ground.' (2R33)

4.144 *pinya=ni* *ngarrungu-ju* *Kulkarriya-**angka**-ju,*
hit.PST=3PL.S person-ERG placename-**SRC**-ERG

wanyju-ngku *purrku-ngku*
one-ERG old.man-ERG
'People from Nookenbah killed him, one old man did.' (1R87)

4.145 *puturi-n* *nga=n-nga* *nganiji=n* *ngay**angka***
need-PRES CAT=2SG.S-EP whatsaname=2SG.S I.**SRC**
'You want something from me.' (1D91)

Prior states (compare (4.146) with (4.139), where the ablative is used):

4.146 *wilgananana* *lambu* *yanga*
wilka-na=rna=rna *lampu-**yangka***
flex-PST=1SG.S=RR sleep-**SRC**
'I stretch myself after getting up from sleep.' (McK:151)

4.147 *wipirti-**yangka*** *manga purlka=rna jarri-nya*
small-**SRC** girl big=1SG.S INCH-PST
'From a small girl, I grew up.' (3Sen52)

Temporal origins:

4.148 *kari-ka-na wanyjirra=lpiny kajalu-**yangka***
rouse-AUX-PST other=first ahead-**SRC**
First (he) took out the other one, which was (put on) earlier.' (HTG87alt)

4.149 *kala~kala-nku=na kunyarr-ju yurrany~yurrany-**jangka** pantu kuwi*
running~RDP-FUT=3SG.S dog-ERG sunrise~RDP-**SRC** MED meat
'The dog will chase that prey from sunrise.' (HTG157)

Cause or reason:

4.150 *manin danga ṉana raburabari*
*marnin-**tangka** nga=na rapu~rapu-arri*
woman-**SRC** CAT=3SG.S jealous~RDP-INCH.PRES
'He is jealous because of the woman.' (McK:113)

4.151 *ṉaba anga mulnyi dyabula*
*ngapa-**angka** mulnyi japula*
water-**SRC** soil mud
'The ground is wet from rain.' (McK:62)

Material:

4.152 *pantu jinarl-pa lintij-**jangka** jimpila*
MED spear-and quartz-**SRC** spearhead

parrpa-narrinya=na=la limirri
glue-NARPST=3SG.S=3SG.OBL spinifex.gum
'He glued the spear and the stone spearhead with spinifex gum.' (HTS30)

Source-marked nominals generally inflect for relational case after the source marker, when functioning referentially in argument function, or agree with the head noun when

functioning as adnominal modifiers. Most instances are unmarked as absolutive, but (4.144) shows the ergative following the source marker in agreement with head of the NP in transitive subject function.

The source marker can derive new words from nominal roots (4.153), and is used with the interrogative *ngantu* 'what/who' to produce *ngantangka* 'why, what from' (4.154 - §5.2.1), and with demonstratives to produce sentence particles which link clauses (§5.3.6.2).

4.153 *pani-ngku wipirti-marta-ju ngayu-ngku purlka-marta-ju nga-yarra*
s/he-ERG small-CPR-ERG I-ERG big-CPR-ERG CAT=1DU.EX.S

*ka-ngarrinya ngamarna-**angka**-yarra-ju*
carry-NARPST breast/milk-**SRC**-DU-ERG
'We two, she the smaller and I the bigger, carried it in two milk tins.' (2J55-56)

4.154 *wu ngantu-**angka**=n yurra kuru-ju-n*
oh what-**SRC**=2SG.S night black-AUX-PRES
'Oh, why are you out so late?' (HTG210alt)

4.3.7.2 Prior events

The source suffix also indicates events which occurred prior to that described by the main predicate. These can be expressed by predicative nominals, and both nominalised and finite subordinate clauses. The use of the source marker as a complementiser in temporal anteriority (perfect) subordinate clauses is examined in (§13.3.3) and in clausal complements in (§13.4).

4.155 *unagadiyanga ganiny bidi lambu*
*[wurna-karti-**yangka**] kaniny pirti lampu*
move.off-ALL-**SRC** below hole sleep
'The people were asleep after being out hunting.' (McK:96)
('Those who had been on a trip were asleep in a hollow.')

4.156 *pani-ngku nga=na=nya muku-ka-na yinpa-na-**angka**=na=nya*
s/he-ERG CAT=3SG.S=1SG.O sick-AUX-PST sing-PST-**SRC**=3SG.S=1SG.O
'He made me sick by singing me.' (G100)

4.157 *girgi bilga burnuyanga*
*kirrki pilka pu-ngu-**yangka***
crown split hit-INF-**SRC**
'Head split open from being hit' (McK:69)

4.158 *pantu mininy murta kartu-**yangka** makurr-pu-ng**angka***
MED language nothing child-**SRC** path-AUX-INF.**SRC**

*kuwi-**yangka**-pa kanti-n**angka**-pa ngantu-pa yarrkal-**tangka**-pa*
meat-**SRC**-and hit-INF.**SRC**-and what-and hunting-**SRC**-and
'That story is only about going backwards and forwards as children, killing meat, hunting and whatever.' (1D63)

4.159 *ngurra-ngu-**yangka** pantu yulpurru kakarra nga=na=la*
camp-ABL-**SRC** MED before east CAT=3SG.S=3SG.OBL

palamparr-pu-ngarrinya
sunrise-AUX-NARPST
'We'd have moved from that last camp early before the sun would rise on us.' (1J121)

4.3.8 Genitive (GEN)

The genitive has a single form, *-kura*,[15] used to indicate an association between two entities, primarily a possessive relationship (possessum underlined in examples below). It marks the possessor of alienable possessions (4.160, 4.163) including kin relations (4.161), and, optionally, inalienable posessors (4.162). Three different types of possessive construction which employ the genitive are described in §10.4. As an adnominal suffix, it can take further inflection in agreement with the noun it modifies; the ergative is shown in (4.161) and locative in (4.160). Other characteristics of the different types of possession, such as cross-referencing, are examined in §10.4.

[15] The first person singular stem of the genitive changes from *ngayu* to *ngija-* (§5.1) but is represented in this section morphemically as *ngayu-kura* for ease of reference.

4.160 *kapa-nku=na=la maya-ngka kankarni, ngurra-ngka pani-**kura**-ja*
sit-FUT=3SG.S=3SG.OBL home-LOC up.top camp-LOC s/he-**GEN**-LOC
'He will sit up in his camp with it.' (HTG107)

4.161 *nyuntu, nyuntu=na=na ka-ngku wulu-ngku nyuntu-**kura**-ju*
you.SG you.SG=3SG.S=2SG.O take-FUT father-ERG you.SG-**GEN**-ERG
'Your father will take you.' (2J102)

4.162 *parnta-na=rna nimarrangka ngayu-**kura***
break-PST=1SG.S arm I-**GEN**
'I broke my arm. / My arm broke.' (G150)

Genitive-marked NPs can also act as ascriptive predicates (4.163-164) and as the complements of copula verbs (4.165), especially in identifying contexts (§12.1, §12.2.1).

4.163 *jaku nga=na wayitpal-**kura***
shovel CAT=3SG.S whitefella(E)-**GEN**
'The shovel belongs to the whitefella.' (1R9)

4.164 *nyaltu nga=yinyala kuwi paniyarti-**kura***
PROX CAT=3PL.OBL meat they-**GEN**
'This meat is theirs./ This is their meat.' (2sen56)

4.165 *murta=palangka ngapa wanti jurru-yarra-**kura***
nothing=3DU.OBL water be.PRES snake-DU-**GEN**
'The water belongs only to the two snakes.' (MC8)

In Mangarla, the genitive suffix *-kura* is clearly an augmented cognate of the proto-Pama-Nyungan dative *-ku* (Dixon 1980:311). Similar augmented forms are found extensively within the Nyungic language family from the Ngayarda and Western Desert languages to the south and within the Marrngu and Ngumpin-Yapa groups to the west and east associated with possessives, purposives and benefactives/adversatives (Dench 1991, 1995, Hale 1982, Laughren 1997).

In Mangarla, despite having distinct forms for each of these functions, there continues to be semantic overlap between them, and the genitive and dative are each used in some

contexts. For example, the genitive occasionally replaces the dative on the recipient of the verb 'give' (4.166 - §11.3.8), and often has an implied purposive, benefactive or malefactive interpretation, shown by the alternative translations of (4.167-169).

4.166 *ngayu-ngku=rna yu-ngku nyuntu-**kura** ngapa*
I-ERG=1SG.S give-FUT you.SG-**GEN** water
'I will give you water.' (93sen3)

4.167 *wayi=n ma-na kuwi ngaliyarra-**kura**.*
Q=2SG.S get-PST meat you&I-**GEN**
'Did you get our meat (for us)?' (G127)

4.168 *warrkam-pu-ninya=**la** wayitpal-**kura***
work(K)-AUX-NARPST=**3SG.OBL** whitefella(E)-**GEN**
'They were doing the whitefella's work.'
'They were working for the whitefella.' (Ngi6)

4.169 *ngayu-**kura** murtika nga=na=**ja** parnta-na=na=**ja***
I-**GEN** car(K) CAT=3SG.S=**1SG.OBL** break-PST=3SG.S=**1SG.OBL**
'My car is no good.' (G149)
'My car broke down on me.'

Characteristic associations can be signalled by genitive. These are not strictly possessive but describe the function or purpose for which an entity is intended (§11.4.3). In these constructions the focus is on the relationship between the entities involved rather than the secondary activity which would be conveyed by the purposive (§4.3.10).

4.170 *wuñgu ñanala bidimangu ganañandyagura*
*wungku nga=rna=**la** pirti-ma-nku karnanganyja-**kura***
construction CAT=1SG.S=**3SG.OBL** create-AUX-FUT emu-**GEN**
'I will make a trap for an emu.' (McK:105)
'I will make an emu trap.'

4.3.9 Comitative (COM)

The comitative has four forms which are subject to the morphophonemic changes described in §2.37:

-yartu	on stems ending in /i/ and most ending in /u/ (*ngulyku-yartu* 4.175, *kuli-yartu* 4.177)
-artu	on stems ending in /a/ and optionally on those ending in /i/ and /u/ after segment deletion (*wanyjirra-artu* 4.172, *ngay(u-y)artu* 4.171)
-jartu	on stems ending in C [-alveolar] and C [+rhotic] (*yipirr~yipirr-jartu* 4.174, *kaniny-jartu* 4.187)
-tartu	on stems ending in C [+alveolar, -rhotic] (*partan-tartu* 4.180, *mangurl-tartu* 4.183)

It marks entities which accompany the core participants in an event.

4.171 *pantarra=pala purta ngayu-**artu*** Derby-*karti*
MED.DU=3DU.S come.FUT I-**COM** placename(E)-ALL
'Those two will come with me to Derby.' (A2)

4.172 *wanyjirra-**artu**=na yaku ya-na*
other-**COM**=3SG.S husband go-PST
'She went with another husband.' (1M6)

Comitative-marked NPs can also have ascriptive or proprietive interpretations. This generally involves inanimate entities but also occasionally animates (4.173), and refers to possessions (4.174 - including instruments §4.3.2.2), properties or qualities (4.175-176), the manner in which an activity is performed (4.178-179) or its driving force (4.180).

4.173 *ngijakura wulu, wulu ngijakura kujarra-**artu** wangu*
I.GEN father father I.GEN two-**COM** wife
'My father had two wives.' (1P63)

4.174 *yipirr~yipirr-**jartu** yala-ngu nga=ni kapa-narrinya wulu-pa kampaja*
hair.belt~RDP-**COM** DIST-ABL CAT=3PL.S sit-NARPST father-and mother
'Father and mother with their hair belts (full of meat) would come back from there and sit down.' (1J73)

4.175 *pantu jipi=na ngulyku-**yartu***
MED man=3SG.S beard-**COM**
'That man has a beard.' (3Sen39)

4.176 *mannga-**artu**-ju nga=na=nya kanti-na*
fat-**COM**-ERG CAT=3SG.S=1SG.O hit-PST
'The fat woman hit me.' (3Sen41)

4.177 *kuli-**yartu**-ju=ni-ya yaji-ngarri jaya-ngku pantu ngarrungu*
anger-**COM**-ERG=3PL.S-EP wait-IPFV mob-ERG MED person
'That big mob is waiting angrily for that man.' (FKsen2)

4.178 *janturla-**artu**=na pantu*
carry.on.hip-**COM**=3SG.S MED
'That one is carrying (a kid) on her hip.'
(*lit*. 'That one is with hip carrying.') (1R124)

4.179 *murtika-**artu**=na parti-nyarri wurna*
car(K)-**COM**=3SG.S go-IPFV move.off
'He is going on a trip in a car.' (PSh25)

4.180 *partan-**tartu**=pala parti-nyarrinya*
law.business-**COM**=3DU.S go-NARPST
'They went with business (in mind).' (Nya75)

A comitative nominal agrees in case with the NP it modifies or takes relational case when functioning referentially as the head of the NP. Thus, in (4.173-175) it is unmarked in agreement with an absolutive NP while it is marked by the ergative as the subject of a transitive verb in (4.176) and in agreement with the transitive subject on which it is predicated in (4.177). In (4.181), a comitative-marked noun agrees with the locative NP it modifies.

4.181 *Martuwarra-ja=ni jarri-nyinya nyalara-ja*
Fitzroy.River-LOC=3PL.S INCH-NARPST PROX-LOC

*Nyikina-**artu-ja** ngarrungu-ja*
Nyikina-**COM-LOC** person-LOC
'They are here on the Fitzroy River in the country of the Nyikina-speaking people.' (1D8)

Instruments (§4.3.2) marked by the comitative have no further case-marking in intransitive clauses but are usually linked to the agent of a transitive clause by the ergative suffix (4.183), but not always (4.184).

4.182 *parra~parra-**artu**=na jultu-n lakapa-Ø*
heat~RDP-**COM**=3SG.S melt-PRES fat-ABS
'The fat melts with the heat.' (3Sen7)

4.183 *yinpu-ngarrinya=na mangurl-**tartu**-ju*
spear-NARPST=3SG.S spear-**COM**-ERG
'He would pierce it with his spear.' (1P18)

4.184 *mil-ka-ngarri nga=rna mil wanyjirra-**artu***
eye-AUX-IPFV CAT=1SG.S eye other-**COM**
'I see things with a different eye.' (FK102)

Many spatial and temporal modifiers employing the comitative have a comparative sense.

4.185 *Ngiyingiyi kara-**artu** kara-**artu** wanyjirra-ja palma-ngka*
placename-RDP west-**COM** west-**COM** other-LOC creek-LOC
'On another creek, to the east of Mowla Bluff. (Nya37)
(*lit*. Mowla Bluff is to the west (west-having) of another creek.')

4.186 *winmil yulpurru-**artu**=na wani-nyarrinya*
windmill(E) before-**COM**=3SG.S be-NARPST
'There used to be a windmill there in the early days.' (93sen77)

4.187 *kaniny-**jartu***
below-**COM**
'inside/ underneath'

The comitative is used to form demonstratives (*pan**artu*** 'MED') and interrogative stems (*ngan**artu*** 'who') (§5). Suffixed to the negative, it forms the privative, *wajarr**artu***.

4.188 *wajarri-**artu**=rna warnku.*
NEG-**COM**=1SG.S stone
'I have no money.' (3Sen58)

4.189 *wajarri-**artu** jarrampa nga=la parti-nya*
NEG-**COM** cherrabin CAT=1PL.IN.S go-PST
'We went without bait.' (2sen23)

It is often used to derive nouns from adverbials formed with the manner suffix (§4.3.11).

4.190 *a) patkarrartu*
*pat-karra-**artu***
thump-MAN-**COM**
'small kangaroo sp.'

b) Pirnikarrartu
*pirni-karra-**artu***
snort.noise-MAN-**COM**
'personal name'

4.3.10 Purposive (PURP)

The purposive marker has two allomorphs, the second of which is used by only a few speakers who use it exclusively.

-pirri (4.191-194)
-purru (4.195-196)

These idiolectal differences may be a relic of past dialectal differences, or *-purru* may be a loan from Walmajarri where it predominates (Hudson 1978:29). McKelson (1974:38) treats the two as dialectal varieties, with *panpartupanpartu* dialect preferring *-purru*.

The purposive is attached to nominals and nominalised clauses (§13.3.1) to indicate an activity potentially performed at a later time. This may be the purpose of the main clause event (4.191), or a future use for one of its participants (4.192).

4.191 *ya-nku=na, kuwi-karti muku-nu-**pirri***
go-FUT=3SG.S meat-ALL club.AUX-INF-**PURP**
'He will go to kill meat.' (HTG3)

4.192 *kakurtu ngurtin=nyjangu panjurn panartu pirti-ma-nu-**pirri***
finish alone=INDEED wood MED create-AUX-INF-**PURP**

mangurl-pa kulpi-pa karrpirna-pa
spear-and scoop.coolamon-and shield-and
'Alright that one is the most appropriate tree for working into a spear, coolamon or shield.' (HTS44)

4.193 *gulbi* *bidi birri* *labdyanu birri*
kulpi *pirti-**pirri*** *laja-nu-**pirri***
scoop.coolamon hole-**PURP** dig-INF-**PURP**
'Gulbi, a coolamin (*sic*) for digging holes.' (McK:106)
('A *kulpi* is a coolamon for digging holes.')

4.194 *panartaru=ni* *ngurrja-narri* *murtika* *wurna-**pirri***
MED.PL.ERG=3PL.S talk.about-IMPF car(K) move.off-**PURP**
'They are discussing a car to go on a trip.' (93sen51)

It can also mark a participant associated with a future event or its timing. In this, Mangarla resembles Warlpiri, in that the nature of the event 'is left unspecified, to range over the total set of meanings of verbs which could select the nominal' (Hale 1982:286).

4.195 *kuwi-**purru**=rna* *ma-nku*
meat-**PURP**=1SG.S get-FUT
I'll get (wood) for (cooking) the meat. (2sen61)

4.196 *banda**ñ**gadyu* *yura burru* *ñ**a**niya* *muninarinya* *walu*
pantangkaju *yurra-**purru**=ngarni-ya* *murni-narrinya* *warlu*
after.that night-**PURP**=1PL.EX.S-EP gather-NARPST fire
'We gathered wood for [burning during] the night.' (McK:PS47)

The purposive marks the complements of verbs of information transfer and predicates involving knowledge, desire, and other mental and cognitive states (§13.4.2).

4.197 *dyabir manana* *yuda gadi* *birri*
japirr-ma-na=rna *yurta-karti-**pirri***
ask-AUX-PST=1SG.S fish(NM)-ALL-**PURP**
'I asked if I could go fishing.' (McK:49)

4.198 *ñ**a**yu* *nila* *gali birri,* *garbina birri,* *darugu birri*
ngayu *nila* *karli-**pirri**,* *karrpirna-**pirri**,* *tarruku-**pirri***
I clever boomerang-**PURP** shield-**PURP** law-**PURP**
'I know about boomerangs, shields, and business.' (McK:158)

4.199 *kawu-na=na=ja* *wanyjirra-ju* *wurna-**purru***
call.out-PST=3SG.S=1SG.OBL other-ERG move.off-**PURP**
'Someone called out to me to go for a walk.' (2sen191)

The purposive can derive new lexemes from other nominals (including the interrogative *ngantupirri* 'why, what for' from *ngantu* 'what/who'), or nominalised verbs. These may be compounds involving more than one element as shown in §4.2.2.

4.200 *gadi binyana* *ṉanyi* *gadi buṉu birri*
kati-pinya=na *nganyi* *kati-pu-ngu-**pirri***
cut-AUX.PST=3SG.S pubic.hair cut-AUX-INF-**PURP**
'He shaved the pubic hair for the operation.' (McK:73)

4.201 *a) jani-ma-nu-**pirri*** *b) kapa-nu-**purru*** *c) nimarrangka-**purru***
cook-AUX-INF-**PURP** sit-INF-**PURP** hand-**PURP**
'saucepan' 'chair' 'gloves'
(*lit*. for cooking) (*lit*. for sitting) (*lit*. for hands) (3Sen46-48)

4.3.11 Manner (MAN)

The manner suffix, *-karra* (occasionally *-lkarra*) marks nominals and nominalised verbs in a wide range of syntactic contexts. It has a broad associative meaning which links an entity, attribute, event or state to another. Primarily, these function as adjuncts, which provide adverbial information about an event, or as (secondary) predications on one of its participants. It also functions as a complementiser on nominalised verbs in subordinate clauses of temporal coincidence (§13.3.2) and clausal complements (§13.4.2). With further morphology, it is used in the derivation of names based on characteristic behaviours or complex verbs (§7.2.2.2).

Its adverbial derivations generally involve the specification of time or manner and approximate to English participles with *-ing* and periphrastic expressions like 'in such and such a way'. It often describes a secondary activity or a state of affairs holding at the time of the main assertion, translated as 'while', 'when' or 'during'.

4.202 *kamurra=ni* *wanti-ma* *wulyu=lku-**karra*** *wakaj-kuyarra* *warrkam-ja*
uncertain=3PL.S be-PST.IRR good=RESTR-**MAN** complete-every work(K)-LOC

wayitpal-kura-ja *wayitpal-kura* *warrkam*
whitefella(E)-GEN-LOC whitefella(E)-GEN work(K)
'Perhaps they might have all stayed and been alright, working for the whitefella.' (Ngi13)

4.203 *warrkam-**karra** nga=ngarni wani-nyarrinya*
work(K)-**MAN** CAT=1PL.EX.S be-NARPST
'We stopped there working.' (FK81)

4.204 *wanyju=la ka-ngku jayil-karti-**karra***
one=1PL.IN.S take-FUT jail(E)-ALL-**MAN**
'We'll take one to jail when we go.' (Ngi43)

4.205 *panartarra=pala ya-na juju yinpa-nu-**karra***
MED.DU=3DU.S go-PST song sing-INF-**MAN**
'Those two went along singing a song.' (G15)

4.206 *waṉal ṉandyurruny wira ṉangara*
*wangal=nganyjurruny wira ngan-**karra***
wind=1PL.EX.O shoot.PRES dry.spinifex-**MAN**
'The wind whips up the spinifex.' (McK:110)
(*lit.* 'The wind shoots us (as it blows) dry spinifex.')

Often used with verbs of stance or motion, many of these expressions resemble preverbal elements in a 'loose' compound verb (§7.2.3). McKelson's (1974) original translations given first in (4.207-208) suggest that they provide semantic detail for a single continuous activity, as like-marked coverbs in Bilinarra, where a homophonous suffix is described as the continuative (Meakins and Nordlinger 2014:342). However, this interpretation cannot be applied to all cases in Mangarla, and the second translation better captures the function as an adverbial or secondary predicate. In support of this, most *-karra* expressions occur some distance from the verb, often as the first or last clausal-element.

4.207 *baga nga ṉana birb birb gara garinyari*
*paka-ngka nga=na pirrp~pirrp-**karra** karri-nyarri*
tree-LOC CAT=3SG.S turn.aside~RDP-**MAN** stand-IPFV
'He is peeping from the tree.' / (McK:142)
'He is standing at the tree turning (his head) from side to side.'

4.208 *dyumburgara na badinyari*
*jumpurr-**karra**=na parti-nyarri*
shuffle-**MAN**=3SG.S go-IPFV
'He is shuffling along.' / (McK:146)
'He goes along shuffling.'

Used with ideophones, it characterises a sound made by a participant during an activity.

4.209 *gad gara ṉana gadiyari*
*kat-**karra** nga=na katiyarri*
thump-**MAN** CAT=3SG.S run.PRES
'It makes a thumping noise on the ground as it runs away.' (McK:80)

4.210 *turl-**karra** wira=lany wakaj-kuyarra*
noise.of.rifle-**MAN** shoot.FUT=1PL.IN.S>3PL.O complete-every
'With a bang! We will shoot the lot.' (Ngi54)

It occurs frequently on pronominals, particularly the indicational demonstrative *yakarni* 'thus' (§5.3.2). It also derives the adverbial interrogative/indefinite pronoun *jarnikarra* 'how' from *jarni* 'where' (§5.2.3). In (4.211) the speaker is comparing the situation at the time of speaking to that described in her narrative.

4.211 *ngaliyarra purnkurr-ja pantu-**karra***
you&I shade-LOC MED-**MAN**
'You and I are in the shade like that.' (1J81)

Often it specifies prevailing temporal or environmental conditions. In (4.215), *wanyjirrakarra* is ambiguous, like the English 'alternatively', and may refer to a different occasion or an alternative manner.

4.212 *ṉabagara nala wandi*
*ngapa-**karra** nga=la wanti*
water-**MAN** CAT=1PL.IN.S be.PRES
'We are in the rain season.' (McK:110)

4.213 *yulpurru-**karra** nga=ni-ya kartu nyarlu yita-ka-nya*
before-**MAN** CAT=3PL.S-EP child dead give-AUX-PST
'In the olden days, they gave children to the devil-devil.' (H3)

4.214 *mada ñaniya wuñgu wañal-gara*
*marta-nga=ni-ya wungku wangal-**karra***
build-PRES=3PL.S-EP construction wind-**MAN**
'They made a break wind from the wind.' (McK:91a)
'They build a windbreak when it's windy.'

4.215 *Nyikina=ni mininy-pu-nga wanyjirra-**karra***
Nyikina=3PL.S language-AUX-PRES other-**MAN**
'On another occasion, they speak Nyikina.' /
'Alternatively, they speak Nyikina (instead of Mangarla).' (1D70)

The suffix can associate a set of vaguely defined contextual characteristics with an entity, such as behaviours or environmental conditions. In the Nyulnyulan languages, as a marker of plurality, *-garra* indicates environmental conditions in Yawuru (Hosokawa 2011:29) such as in (4.216), and on the temporal *yulpurru* in Nykina, it has an intensifying effect translated as 'long long ago' (Stokes 1982:92, 344), as in (4.213).

4.216 *kakarra=pala junga murrka-**karra***
east=3DU.S straight paperbark.tree-**MAN**
'Those two (went) directly east to paperback country.' (MC46)

4.217 *nyalartarti pirra-**karra***
PROX.PL bush-**MAN**
'These ones are bush types.' (PSh168a)

4.218 *wupa-**karra** kajana, wupa kajana, kampaja, kampaja-ju=na*
small-**MAN** boy small boy mother mother-ERG=3SG.S

wulu-ngku=na=nya ka-nya kilarni-marrangu
father-ERG=3SG.S=1SG.O carry-PST in.south-DIRABL
'When I was a toddler, a small boy, my mother and father carried me out of the south.' (1R114)

The *-karra* suffix is widespread in languages of the region. In some, its function is restricted; in Warlpiri (Hale 1976, 1982:298, Simpson 1988), it occurs only as a complementiser in subordinate clauses (both full and reduced) signalling temporal coincidence with the matrix clause and coreferentiality of both subjects, while in Bilinarra, it is restricted to marking coverbs (Meakins and Nordlinger 2014:342). However, in those geographically closer to Mangarla, its use is broader. In Warnman (Burgman 2010:69), Walmajarri (Hudson 1978:35), Nyangumarta (Sharp 2004:154) and Jaru (Tsunoda 1981:241-242)) it has similar adverbial interpretations. In the last two, it also derives occupations from these associations.[16]

In Mangarla, *-karra* rarely occurs on more than one word in a clause and the 'controller' of any subject deletion when used in a subordinate clause varies and is distinguishable only on pragmatic grounds. Unlike its cognates in the Ngumpin-Yapa group, a *-karra* construction never shows agreement with a main clause participant. In Mangarla, suffixes which can follow it are restricted to a few adnominal and derivational morphemes.

The comitative suffix is commonly added to characteristics or mannerisms derived with *-karra* to create names of locations, people and animals. These can then function as arguments and receive case markers such as the ergative.[17]

Kinyakarrartu *Kinya-karra-artu* [this(KJ)-MAN-COM] personal name
(after a mannerism of saying *kinya, kinya* 'this, this')

kurntungkarrartu *kurntu-ng-karra-artu* [carry.on.shoulder-EP-MAN-COM]
'someone who carries something on their shoulders'

janturlangkarrartu *janturla-ng-karra-artu* [carry.on.hip-EP-MAN-COM]
'someone carrying something on their hip'

This combination also appears to be cognate with *-kurru*, a nominaliser found occasionally in the same context, particularly on onomatopoeic words (*e.g. turl-kurru*

16 In these lexicalisations, the form *-lkarra*, one of the Mangarla allomorphs, is used in Nyangumarta (Sharp 2004:154), while Jaru simply adds the ergative to a *-garra* inflected stem (Tsunoda 1981:242).

17 Only one form without a derivational suffix has been found to take the ergative. In McKelson's religious texts the frozen form *mangarikarra* 'Dreaming, eternal' is used to mean 'God' or 'the eternal one' and is marked by the ergative in transitive clauses.

'rifle'), and common in Nyikina, translated as 'do-er' *i.e.* 'one who does X' (Stokes 1982:55). Both are used interchangeably in some contexts:

patkarrartu *pat-karra-artu* [thump-MAN-COM]
~ patkurru *pat-kurru* [thump-doer] 'small kangaroo sp.'

The derivational *-karraji* 'one PERTaining to' (§4.5.2) also alternates with *-kurrji* 'belonging' (§4.5.3). Both derive entities from characteristics.

The 'characteristic' suffix *-yiti* (§4.5.5) can follow the manner suffix (4.219)

4.219 *pantu-**karra**-yiti* *yurra=na* *purta-nyarri*
MED-**MAN**-CHAR night=3SG.S come-IPFV
'He is always like that, coming at night. / He is always late.' (2sen33)

The suffix *-karra* is also used in verbal derivation. Indefinite pronouns and demonstratives with *-karra* can be verbalised with the transitive auxiliary *kan* (4.220) and intransitive inchoative (4.221).

4.220 *nyuntu-ngku=rtiny* *jarni-**karra**-ka-nku*
you.SG-ERG=EXPECT how-**MAN**-AUX-FUT
'You will do what you think best.' (1D4alt)

4.221 *ngurrja-narri=rna=ngka* *kurlila-ng-angka* *ngarrungu*
talk.about-IPFV=1SG.S=2SG.OBL south-EP-SRC person

*jarni-**karra**-ny-jarri-nya*
how-**MAN**-EP-INCH -PST
'I'm telling you what became of the men from the south.' (1D59)

-Karra is also frequently added to nominalised verbs acting as preverbal stems in a complex verbal construction with the *kanga* 'carry' auxiliary. The resulting verb may be intransitive or intransitive according to the transitivity of the nominalised verb. This construction also occurs in Walmajarri (Hudson 1978:48) and is described further in §7.2.2.2.

4.222 *nguwi-nu-**karra**-ka-nya* *yalparra* *mayaru-karti* *pantu-karti*
return-INF-**MAN**-AUX-PST again house-ALL MED-ALL

mayaru=ngarni ya-na
house=1PL.EX.S go-PST
'Later we came back to that house.' (2J109)

4.3.12 Resultative (RES)

The resultative suffix, *-rru*, denotes a state which results from an activity. It is homophonous with the inchoative suffix in the future imperfective tense after it has undergone morphophonemic changes (*-(ya)rru*). However, while this may have been its origin, it is analysed as a distinct suffix since it occurs in tensed clauses that are incompatible with this reading. Walmajarri has a similar suffix *-wurru/-kurru* 'consequent' (Hudson 1978:34). However, this is probably unrelated to the homophonous 'doer' suffix (§4.3.11) which Mangarla most likely borrowed from Nyikina.

4.223 *marlka-**rru**=rna kurna-na*
sated-**RES**=1SG.S ingest-PST
'I ate until I became full.' (93sen72)

4.224 *wirrja-ngarrinya=na tanyji-**rru***
put-NARPST=3SG.S hard-**RES**
She would put it aside till it went hard. (HTK21)

4.4 Suffixes which compare

Suffixes discussed in this section have an adnominal or derivational role exclusively. Some intensify or attenuate the properties of the suffixed nominal. Others relate the properties, behaviours or associated features of the suffixed nominal to another.

4.4.1 *-marta* (CPR) 'comparative'

The comparative suffix, *-marta*, forms a stem which compares a quality or entity to another with a similar characteristic. Sometimes translated as 'kind' or 'like', it occurs frequently on the indicational demonstrative (§5.3.2), often with an illustrative model in the environment for comparison. In (4.226) the speaker is comparing the scene in a picture to her world knowledge.

4.225 *yuka=na=la wirrja-ngarrinya nyaltu yuka, yakarni-**marta**-pa*
grass=3SG.S=3SG.OBL put-NARPST PROX grass thus-**CPR**-and
'She would put grass in it, this grass, and this kind.' (1J97)

4.226 *ngayi nyalara-**marta** pantu ka-nga=pala pantarra-ju*
yes PROX.LOC-**CPR** MED take-PRES=3DU.S MED.DU-ERG

jamurangu-ju
spousal.pair-ERG
'Yes, like in this here, those two, husband and wife, take that one.' (PSh30)

In the next two sentences, it associates the subjects with activities and implicitly compares them to other people.

4.227 *kuwi-**marta**=rna jarri-nya*
meat-**CPR**=1SG.S INCH-PST
'I was the hunting type.' (2J21)

4.228 *paniyarti=ni kartu-yarti ngaja-yiti-**marta***
they=3PL.S child-PL cry-CHAR-**CPR**
'Those kids are the types who are always crying.' (2sen35)

On descriptive and temporal nominals, it has comparative or sometimes superlative interpretation (*e.g. purlka-marta* [big-CPR] 'oldest' (child), *wipirti-marta* [small-CPR] 'smallest, youngest') and can have a moderating effect.

4.229 *marnpa-**marta** wani-nyu*
close-**CPR** be-INF
'.... to stay closer to them.' (1M50)

4.230 *pirriya-**marta**-ja, pirriya-ja=ngarni kapa-narrinya panartu*
cold-**CPR**-LOC cold-LOC=1PL.EX.S sit-NARPST MED
'In the cooler part of the day, we'd stay there, in the cool.' (1J33)

4.231 *janyja-**marta**=la ma-nku kuwi mangarri*
today-**CPR**=1DU.IN.S get-FUT meat veg.food
'Now we'll get meat and bread.' (HTD90)

While the use of this suffix sometimes overlaps with *-karra* 'MAN', particularly on the indicational demonstrative, to function adverbially (§5.3.5.3), it primarily denotes entities and characteristics. Hence, unlike the manner suffix, inflectional suffixes, such as the locative (4.230), ergative (4.232) or number markers (4.233), often follow the comparative. The ability of this suffix to vary its position is discussed in §4.1, although it always seems to precede the ergative and number inflections consistent with its status as an adnominal suffix.

4.232 *ngayu-ngku=na=ja muku-narrinya wipirti-**marta**-ju kuwi*
I-ERG=1SG.S=1SG.OBL club.AUX-NARPST small-**CPR**-ERG meat
'I killed meat for myself when I was only little.' (1J130)

4.233 *kankara-ngu nga=ni jurr-ka-ninyangka panaru-ngu pirra-ngu*
above-ABL CAT=3PL.S down-AUX-NARPST.SRC MED-ABL bush-ABL

*janyja-**marta**-arti ngarrungarti*
today-**CPR**-PL person.PL
'(We understand each other), today's people having come down from up in the bush.' (2D73)

4.4.2 *-waliny* (SEMB) 'semblative'

The semblative suffix, *-waliny*, is added to an entity to mean 'a type of' or 'same but different'. As shown in §4.1, its position in the word is variable. It generally occurs after overt inflections as in (4.235-236) but in (4.238) it occurs before the locative case.

4.234 *pinat-**waliny**, ngarlka panartu*
peanut(E)-**SEMB** desert.walnut MED
'That *ngarlka* is a sort of peanut.' (1J88)

4.235 *wajarri=rna wanyjirra-arti-**waliny***
NEG=1SG.S other-PL-**SEMB**
'I'm not the same as these others.' (2J116)

4.236 *ngarrungu-ju, kampaja-ju-**waliny** ka-ngu*
person-ERG mother-ERG-**SEMB** carry-INF
'An adult, like a mother takes (the big one).' (1J110)

The semblative sometimes translates in a similar way to the comparative (§4.4.1), but emphasises the essence of an entity rather than a similar quality.

4.237 *wipirti ningarra=nyjangu=rna kapa-na yakarni-marta nyaltu-**waliny***
small true=INDEED=1SG.S sit-PST thus-CPR PROX-**SEMB**
'I was only really small like this kid, same as this one here.' (1J40)

4.238 *kapa-na=pala turlu-**waliny**-ja*
sit-PST=3DU.S bowl.coolamon-**SEMB**-LOC
'They camped at the two tank-shaped hills.' (Nya33)

4.239 *nyalara-ja=n pirti~pirti-ma-nku parnany*
PROX-LOC=2SG.S create~RDP-AUX-FUT old.woman

*ngayu-ngku-**waliny** nga=rna pirti-ma-na*
I-ERG-**SEMB** CAT=1SG.S create-AUX-PST
'You will paint it here, old woman, same as I painted it.' (HTS77)

4.4.3 *-partu* 'TYPE'

This suffix is widespread in the region with a similar function (*e.g.* Karajarri (Burgman 2005b), Wangkajunga (Jones 2011:73), Walmajarri (Richards and Hudson 1990), Nyikina (Stokes 1982:373), and Yawuru (Hosokawa 2011:210, 348)). It is variously translated and often has a plural or contrastive sense. In Mangarla it is found only linking reduplicated stems in fixed expressions to indicate that the host is one of a number of the same type.

4.240 *ngantu-**partu**~ngantu wani-nya*
what-**TYPE**~RDP be-PST
'There were all sorts of things.' (HTS29)

4.241 *kurtiji-ka-na=ngarni=jiny nyaltu-karti, yakurr-**partu**~yakurr*
swift-AUX-PST=1PL.EX.S=3PL.O PROX-ALL no.good-**TYPE**~RDP

nganarni-kura-arti
we.all.EX-GEN-PL
'We ran to them here, all our old people.' (1M96)

4.5 Suffixes which associate

Five derivational suffixes associate an entity with a place or characteristic. Their use and meaning often overlaps and differences in meaning are difficult to discern at times. Three of the five are formed with the addition of *-ji* to other adnominal suffixes. Another, *-palaji*, is heard at times in the same context and is understood to be a loan possibly from Kriol [fella-ji]. The *-ji* ending also occurs on the 'whatsaname' pronoun *nganiji* 'what-ji' (4.245 - §5.2.2). It seems to derives nouns from other nominal types or may have a discourse function. In Wangkajunga, the demonstrative *jii* acts as a topic marker (Jones 2011:117), while *-ji* on Nyangumarta kinship terms appears to relate to possession (Sharp 2004:158) as it does in a much broader way as the regular dative/possessive in Nyikina (Stokes 1982:68).

4.5.1 *-martaji* (ASS) 'associated with'

This suffix associates an entity, including people, with a certain environment or place. In Warnman this suffix is glossed as 'inhabitant' (Burgman 2010:69), but (4.244) shows that its sense is broader in Mangarla.

4.242 *pirra-ngu=na kilu pirra-**martaji***
bush-ABL=3SG.S mouse bush-**ASS**
'This mouse is from the bush, it's a bush dweller.' (PSan81)

4.243 *Martukuru-**martaji** ngayu*
placename-**ASS** I
'I'm from Martukuru.' (FK4)

4.244 *pantu wulu-ngku ngijakura-ju nga=na=nya pina-purlka-rra*
MED father-ERG I.GEN-ERG CAT=3SG.S=1SG.O hear-big-?

*yinya pantu-pirri ngantu-pa pirra-**martaji** ngijakura-pa panjurn-pa*
give.PST MED-PURP what-and bush-**ASS** I.GEN-and wood-and

mangurl-pa karli-pa marlpurlu-pa jinya-nu jinarl-pa
spear-and boomerang-and baby.carrier-and trim-INF spear-and

pirti~pirti-ma-nu
create~RDP-AUX-INF
'My father gave me a good understanding of bushcraft, working trees and spears and boomerangs and coolamons and making all kinds of things.'
(HTS25)

4.5.2 *-karraji* (PERT) 'pertaining to'

This suffix also associates entities with their environment. A comparison of (4.245-246) with (4.242) illustrates the functional similarity of this suffix and *-martaji* 'associated with' (§4.5.1). Both occur as dialectal variants in Walmajarri (Richards and Hudson 1990:377), but in Mangarla, all speakers use both. Wangkajunga uses *-karraja* 'dweller' (Jones 2011:72).

4.245 *wanyjirra kuwi nguju nganiji, nganiji kuwi,*
other meat REC whatsaname whatsaname meat

*yura-**karraji**, wipirti-marta makarra lurntu nyaltu*
swale-**PERT** small-CPR tail fat PROX
'Another animal, you know, what is it, a whatsaname, lives on the flat ground between sandhills; it's a little one with a fat tail, this one.' (1J133)

4.246 *wulala-ju ngarrungu ningarra-ka-n=ngarni-ya jurru*
a.lot-ERG person true-AUX-PRES=1PL.EX.S-EP snake

*kaniny-jartu ngapa-**karraji***
below-COM water-**PERT**
'A lot of people believe that there is a snake living inside the river.' (G94)

It can also associate people or spirits with behaviours or origins, which may also be the source of the personal name in (4.249)

4.247 *ṉudin garadyi na wandi*
*ngurtin-**karraji**=na wanti*
alone-**PERT**=3SG.S be.PRES
'He sits down alone.' (McK:117)
'He is a loner.'

4.248 *rai maṉuny garadyi dyu mulnyi ṉandyurruṉga wirdyanya*
rayi manguny-karraji-ju mulnyi=nganyjurrungka wirrja-nya
spirit Dreamtime-**PERT**-ERG soil=1PL.IN.OBL put-PST
'God made the country for us.' (Mck:22)

4.249 *nyalartu Talyu-**karraji** marrkartu ngijakura ngalyarra-kura*
PROX ?-**PERT** younger.sibling I.GEN s/he&I-GEN
'This was Talyu my, our younger sister.' (2J60)

4.5.3 *-kurrji* (BEL) 'belonging'

This suffix occurs infrequently in Mangarla but is widespread around the region. It is clearly formed with the same *-ji* suffix as *-martaji* (§4.5.1) and *-karraji* (§4.5.2) apparently on the stem *-kurru* (see §4.3.11) which signals plurality in Nyangumarta (Sharp 2004:151) and Warnman (Burgman 2010:67). In Mangarla too *-kurrji* seems to encode abundance, although can also host the plural marker (4.251) and is not limited to an environmental context.

4.250 *Walangkarr nga=na warnku-**kurrji***
placename CAT=3SG.S stone-**BEL**
'Are there hills at Edgar Range?' (H34)

4.251 *yina-nku=rna=ngkala pantarti panjurn-arti yini-**kurrji**-arti*
name-FUT=1SG.S=2SG.OBL2 MED.PL wood-PL name-**BEL**-PL

pantu-pirri pirti-ma-nu-pirri mangurl-pirri-pa karrpirna-pirri-pa
MED-PURP create-AUX-INF-PURP spear-PURP-and shield-PURP-and

marlpurlu-pirri-pa
baby.carrier-PURP-and
'I will say the name of all those trees for you, for making that stuff, for spears, shields and coolamons.' (HTS46)

4.252 *ṉidyagura gududu gurdyi nyaldu garbina ṉanana yuṉa*
*ngijakura kurtutu-**kurrji** nyaltu karrpirna nga=rna=na yu-nga*
I.GEN stomach-**BEL** PROX shield CAT=1SG.S=2SG.O give-PRES
'With all my heart I am giving you this shield.' (McK:114)

4.5.4 *-jaku* (DEN) 'denizen'

The suffix *-jaku* indicates that an entity is a native of a location referred to by the host nominal. This is also possibly a loan from Nyikina (Stokes 1982:57); it appears rarely and some speakers offered *-karraji* (§4.5.2) as an alternative. In (4.253) *-jaku* derives an entity while in (4.254) it functions as an adnominal modifier marked by the ergative in agreement with its head.

4.253 *warnku-**jaku***
stone-**DEN**
'someone/thing which lives in a stony place, *e.g.* solanum plant sp.' (3Sen59)

4.254 *pirra-**jaku**-ju ngarrungu-ju nga=ni ngany-ma-ninya*
bush-**DEN**-ERG person-ERG CAT=3PL.S enjoy-AUX-NARPST
'Those bushmen enjoyed (the work).' (Ngi10alt)

4.5.5 *-(y)iti* (CHAR) 'characteristic'

The characteristic suffix derives new nouns which denote entities with a customary behaviour. A glide is generally inserted after vowel-final stems and segment deletion (§2.3.6) occurs when this is [+front].

rayin-iti	[fear-CHAR]	'scaredy-cat'
wajarri-yiti	[NEG-CHAR]	'naysayer/ abstainer'
wurna-yiti	[move.off-CHAR]	'one who always walks around'
paja-nyu-yiti	[bite-INF-CHAR]	'one who bites' *e.g.* dog
pirti-ma-nu-yiti	[create-AUX-INF-CHAR]	'carpenter, artisan'

These derived nouns can be inflected (4.255) and combine with other derivational suffixes. Example (4.219) in §4.3.11 shows it following the manner suffix while (4.228) in §4.4.1 shows it preceding the comparative suffix.

4.255 *ngujartu kuli-**yiti**-ju=na wajili-pu-nga kamurra palma*
REC anger-**CHAR**-ERG=3SG.S follow-AUX-PRES uncertain creek
'That aggressive one might be hanging around the creek.' (FK89)

4.6 Number and groups

Number in Mangarla is signalled in a number of ways. Plurality can be signalled by reduplication (§4.2.1), the use of quantifiers (§9.3.3) or by the use of collective nouns. Free and bound personal pronouns encode the number of their referents, but the nominal suffixes described here are the most common method of marking number. These make a three way distinction: singular/unspecified, dual and plural. Number suffixes generally precede relational case marking, and follow adnominal suffixes. Non-singular allomorphs are sensitive to the number of syllables in the stem and subject to a number of morphophonemic rules (§2.3.7).

4.6.1 *-Ø* (SG) 'Singular/unspecified number'

The singular is phonologically null, represented as *-Ø* in this section but generally unmarked elsewhere.

4.256 *kunyarr-Ø marranyan nga=na wani-nyarri*
dog-SG hungry CAT=3SG.S be-IPFV
'He is a hungry dog.' (PSan11)

4.257 *kuwi-Ø=na wanti*
meat-SG=3SG.S be.PRES
'There is an animal.' (PSh14)

Zero-marking is used for non-count nouns and sometimes for non-singular entities which are unspecified for number. These are generally entities which are expected to occur in groups, such as game and humans, and these terms are often used as generic nouns which co-occur with another more specific term. (§10.2). Whereas the unmarked nominal *kuwi* in (4.257) refers to a single bush turkey shown in the picture the speaker is describing, the same term in (4.258) is unspecified for number. It occurs again in (4.259), also unmarked, but with quantifier signalling plurality.

4.258 *kuwi=ni-ya karta-ju-n*
meat=3PL.S-EP look.for-AUX-PRES
'They look for meat.' (PSh4)

4.259 *ngapa-ngka=**ni** wanti, **purlka-purlka** nguju kuwi*
water-LOC=**3PL.S** be.PRES **big~RDP** REC meat
'They are in the water; remember the big mobs of fish.' (PSh107)

Even though a word can take number suffixes (*e.g. kuwi-yarti* (4.275) in §4.6.3), plurality can be specified for unmarked nominals (underlined below) by other means. In (4.259) the descriptive *purlka* 'big' is used to indicate a large number and its reduplication emphasises the quantity. A pronominal clitic (4.260) or number word (4.261), or both (4.262) can also eliminate the need for overt number marking.

4.260 *paja-na=ni=**palany** marnin, paja-na=ni=**yiny***
bite-PST=3PL.S=**3DU.O** woman bite-PST=3PL.S=**3PL.O**
'They attacked those two (pairs of) women, attacked them all.' (Nya116)

4.261 ***murrkun** pirntirri=na wanti*
three plain=3SG.S be.PRES
'There are three plains there.' (Nya81)

4.262 ***kujarra** wipirti nga=ni=**yarrany** ka-ngarrinya*
two small CAT=3PL.S=1**DU.EX.O** carry-NARPST

marrkartu ngijakura ngayu
younger.sibling I.GEN I
'They carried us two little girls, my little sister and me.' (1J4)

Collective nouns (underlined below) are never marked for number, although they are often registered by non-singular BPs. Sentence (4.264) shows that when the members of a collective are expressed, or a modifier is used, these may be marked for number even though the collective term is not.

4.263 *wulala=**la** partu wurna=wu*
a.lot=**1PL.IN.S** go.FUT move.off=EMPH
'A big mob of us will go.' (FKsen57)

4.264 *panaru-ju ngarrungu-ju nga=**yinya** yaji-ngarrinya ngarrung(u-y)arti*
MED-ERG person-ERG CAT=**3PL.OBL** wait-NARPST person-PL

pantarti *jaya*
MED.PL mob
'That man is waiting for that big mob of people.' (FKsen16)

4.6.2 *-kuyarra, -(y)arra* (DU) 'dual', 'every'

The dual suffix indicates that two entities are being referred to. It has three allomorphs.

-*kuyarra* on stems ending in a consonant. All available examples have only two syllables (*parnany-kuyarra* 4.265)

-*yarra* on stems ending in high vowels /i/ and /u/ (*kurrpiji-yarra* 4.266, *jurru-yarra* 4.267); stems ending in /u/ optionally undergo segment deletion of /u-y/ (§2.3.6) (*ngarrungu-yarra*/ *ngarrungarra* 4.268, *pantarra* 4.269)

-*arra* on all stems ending in /a/ which first undergo stem-final vowel deletion (*paparl(a)-arra* 4.269)

When a dual interpretation is inapplicable, a homophonous suffix indicates totality or acts as an intensifier in the same way as the English 'completely' (§4.6.2.1). Hence, the form may have greater semantic significance as 'both' or 'also' rather than simply 'dual'. However, without further evidence, the two are analysed as separate forms.

When marking duality, the suffix is often accompanied by the quantifier *kujarra* 'two' and other nominals in the NP can be marked in agreement (4.269 - see §9.2.3 for concord in the NP). A dual-marked argument is generally registered by a dual BP, unless inanimate (4.266).

4.265 *panaru=pala* *ma-nu-ng-karra-ka-nya* *parnany-**kuyarra*** *kujarra-ju,*
MED.ABL=3DU.S get-INF-EP-MAN-AUX-PST old.woman-**DU** two-ERG

Nakarra-ju-pa *nganiji-ju* *Nyaparru-ju*
section.name-ERG-and whatsaname-ERG section.name-ERG
'Those two old women got it from there and took it away, Nakarra and whatsaname, Nyapurru.' (Nya11)

4.266 *kujarra* *kurrpiji-**yarra*** *panjurn* *nga=ni* *kati-pinya*
two tree.sp.-**DU** wood CAT=3PL.S cut-AUX.PST
'They cut down the two white-gum trees.' (G144)

4.267 *ngunyi-ma-na=pala jurru-**yarra**-ju*
send-AUX-PST=3DU.S snake-**DU**-ERG
'The two snakes sent him.' (MC23)

4.268 *kankarni yu-ngarri=pala=yinya, kujarra-ju ngarrung(u-y)**arra**-ju*
up.top give-IPFV=3DU.S=3PL.OBL two-ERG person-**DU**-ERG
'Up (in camp) two men give it to them.' (HTG109)

4.269 *paparla-**arra**=ngarni=palangka yaji-ngarrinya kujarra pant(u-y)**arra***
elder.brother-**DU**=1PL.EX.S=3DU.OBL wait-NARPST two MED-**DU**
'We waited for those two elder brothers,.' (1J153)

4.6.2.1 *-kuyarra, -yarra* 'every/each'

When a 'dual' marker is used on non-count nouns and in contexts where a dual interpretation is inapplicable, it has the sense of 'every'. Commonly occuring with *wakaj* 'complete' to signal entirety, *-kuyarra* is sometimes translated as 'everything/body'. It is seen twice in (4.270), on both *wakaj* and on the attributive *juny* 'deceased'.

4.270 *kakurtu juny-**kuyarra**, ngarrungu=ni wakaj-**kuyarra***
finish deceased-**every** person=3PL.S complete-**every**

jurr-ka-ninya warlparni-ngarra
descend-AUX-NARPST to.here-about
'They're all dead; the whole lot of those people (who) came down around here.' (Ngi2)

In these contexts, the referent is often registered in the BP complex as plural, including first person plural.

4.271 *wakaj-**kuyarra**-ju nganarni-ju Mangarla nga=ngarni*
complete-**every**-ERG we.all.EX-ERG Mangarla CAT=1PL.EX.S

mininy-pu-nga
language-AUX-PRES
'We all speak Mangarla.' (1D31)

In (4.272) it occurs on the attributive *ngurtin* 'self, alone' and in (4.273) on an action nominal. While there are two actors in both examples, the emphasis is not on duality but totality or distribution, emphasising that both are involved, acting separately. In the first each participant is alone, while in the second, each ancestor sat independently. In the narrative from which (4.273) is taken, this suffix is not used when the pair is simply sitting together. On this occasion, the narrator is emphasising the fact that each left behind a different landmark.

4.272 *baniyara ṉudinguyarra*
*paniyarra ngurtin-**kuyarra***
they2 alone-**every**
'Those two are separate.'/ (McK:114)
'Each of the two is on his own.'

4.273 *jitany-**kuyarra**=pala kapa-na panara-ja*
seated-**every**=3DU.S sit-PST MED-LOC
'They both sat down in that place, each one.' (Nya30)

The shorter form is found on two words with an all-encompassing meaning: *mulnyi-yarra* [soil-every] 'everywhere' and *yalili-yarra* 'from all sides, from all over'. Nyangumarta's dual marker is used in a similar way, to mark plurality or intensity (Sharp 2004:151). The relationship between the dual marker and inclusive plurals needs further investigation.

4.6.3 *-(y)arti* (PL) 'plural'

The plural suffix indicates more than two entities and has two forms:

-yarti	on stems ending in high vowels /i/ and /u/ (*purrku-yarti* 4.274, *kuwi-yarti* 4.275); optional segment deletion applies (§2.3.6) (*pant(u-y)arti* 4.251, *yinikurrj(i-y)arti* 4.251, *panart(u-y)arti* 4.276)
-arti	elsewhere (stem-final vowel deletion rule applies) (*turuk-arti* 4.276, *kuwarniy(a)-arti* 4.275).

4.274 *kara yap,*
west leave.behind

*Likiriyanji nga=ni nyarlu-yarri-nya=wu purrku-**yarti***
placename(E) CAT=3PL.S dead-INCH-PST=EMPH old.man-**PL**
'All the old men are gone for good, finished in the west, at La Grange.' (1R29)

4.275 *kuwi-**yarti** nga=yiny wirrja-n, kuwarniya-**arti***
meat-**PL** CAT=3PL.O put-PRES freshwater.crocodile-**PL**
'He puts the crocodiles in (the fire).' (PSh152)

4.276 *turuk-**arti**=ni wanti panart(u-y)**arti***
butte-**PL**=3PL.S be.PRES MED-**PL**
'Those little tank shaped buttes are all there.' (Nya49)

Plural and ergative markers are conflated whereby *-(y)arti-ju* [PL-ERG] > *-(y)aru*.

4.277 *panart(u-y)**aru** linyju-**yaru** wayitpal-tu jili-mil-tu*
MED-**PL.ERG** police-**PL.ERG** whitefella(E)-ERG red-eye-ERG

nga=ni-ya=la ningarra-ka-na panartu mininy
CAT=3PL.S-EP=3SG.OBL true-AUX-PST MED language
'Those white policemen believed his word.' (Ngi48)

4.6.4 *-ngal* 'times'

The suffix *-ngal* attaches to quantifiers with a value of more than one. It also forms the interrogative *nyangal* 'when, what time, how many' (§5.2.5) and can co-occur with this in *nyangalngal* 'how many times'. McKelson (1974:111) also records *wandyu ngal* (*wanyju-ngal*) 'once' as an alternative to *wandyumadya* (*wanyju-marrja*) (§4.6.5).

4.278 *nyangal nga=n ya-nku*
when CAT=2SG.S go-FUT
'When/what time will you go?' (93sen36)

4.279 *kujarra-**ngal** nga=na partu*
two-**times** CAT=3SG.S go.FUT
'He will go twice.' (HTG193)

4.280 *tarlawu-narrinya=rna poj, rayil, rayil alatayim, wulala-**ngal**,*
cut-NARPST=1SG.S post(E) rail(E) rail(E) all.the.time(E) a.lot-**times**

*wulala-**ngal***
a.lot-**times**
'I used to cut post and rails, all the time.' (1R81)

4.6.5 *-marrja* 'only'

The suffix *-marrja* occurs with the same sense as *ngal* 'times' (§4.6.4) but is used only with the number 'one', to give the sense of a single occasion.

4.281 *wanyju-**marrja** ngurra*
one-only camp
'Overnight camp.' (1J48)

4.282 *wandyumadya ñana binya ñidyagura* motor car
*wanyju-**marrja** nga=rna pinya ngijakura murtika*
one-**only** CAT=1SG.S hit.PST I.GEN car
'Once I hit my car.' (*cf.* McK:111)

This suffix is homphonous with the word *marrja* which means 'intense, powerful' and is used to form the term *marrjakarti* (powerful-ALL) 'right (hand side)'.

4.6.6 Relationship groups

Certain kinship terms and words denoting human relationships such as section names or life stages can take special suffixes to denote 'possession' or reciprocity (Evans 2006). Most terms taking these special suffixes may also be inflected for number using the same dual and plural markers as non-kinship nominals, but with a different sense. Hence, the term *kamirangu* [granny.DY] may be used to refer to a grandmother and her grandchild, a pair in a reciprocal relationship, where *kamiyarra* [granny-DU] would be used by the grandmother to refer to her two grandchildren. Distributionally and in all other respects relationship terms are used in the same way other nominals denoting animate beings.

Suffixes are generally added to the common or vocative form of the kin term, but some stems always have non-singular reference and thus never occur without a dual or plural

kinship suffix, such as *yimparamarta* 'all siblings', *piparangu* 'mother and child', and a husband and wife are *jamurangu* while a husband and his two wives are *jamuramarta*. Table 4.2 lists forms described in the next three subsections. A blank cell indicates that a term is not found inflected. In most cases where the blank refers to more than one, forms take regular number inflections (§4.6.1-§4.6.3).[18]

Table 4.2 Kinship groups

Vocative	**Kinship possession**	**Dyad**	**Group**	**English guide**
jampartu		*jamparangu*	*jamparamarta*	grandparent/child (MF, FM)
kami	*kaminyanu*	*kamirangu*	*kamiramarta*	grandparent/child (MM, FF)
wulu	*wulunyanu*	*ngajirangu*	*ngajiramarta*	father (& child)
kampaja	*pipinyanu*	*pipirangu*	*pipiramarta*	mother (& child)
		yimparangu	*yimparamarta*	siblings
ngunu	*ngunurtu*	*ngunurangu*	*ngunuramarta*	older sister
paparla	*paparla*			older brother
	mamaranyanu	*mamarangu*	*mamaramarta*	brother
wangu				wife
yaku	*yakunyanu*			husband
		jamurangu	*jamuramarta*	spouses
kaparli/ kapayi	*kaparlinyanu*	*kaparlangu*	*kaparlimarta*	sister-in-law (HZ, BW)
	malinyanu/mali	*malinyangu*	*maliramarta*	mother/son-in-law
yarlpurru	*yarlpurrunyanu*	*yarlpurrangu*	*yarlpurrumarta*	lawmate
	Panaka	*Panakanyangu*	*Panakamarta*	belongs to Panaka section

[18] Table 4.2 is given only to illustrate suffixes that indicate relationships shared by multiple individuals. It does not seek to represent Mangarla kinship fully or more generally. Such an account can be found in Appendix 2, particularly Table A2.1, which shows how gender differences affect relationships.

4.6.6.1 *-nyanu* (POSSKIN) 'kinship possession'

The suffix *-nyanu* is used to denote an individual within a specified relationship. It is analysed as a special kinship possessive suffix. It is never used as a vocative and can refer to one's own or other people's relationships.

4.283 *kujarra=palany waji-ma-nu wangu-yarra yaku-**nyanu** wanyju*
two=3DU.O keep-AUX-INF wife-DU husband-**POSSKIN** one
'Their one husband, he kept two wives.' (1P8)

4.284 *pipi-**nyanu**=yinyala jani~jani-ma-narri*
mother-**POSSKIN**=3PL.OBL2 cook~RDP-AUX-IPFV
'Their mother is cooking for them.' (PSh52)

4.6.6.2 *-(ra)ngu, -nyangu* (DY) 'dyadic kinship'

The dyadic kinship suffix denotes a pair in the marked relationship which may be inter- or intra-generational. It has three allomorphs. Given the small number of available examples, a full analysis of the phonological conditioning is difficult, as is determining the form of the stem for those which always occur as non-singular (*e.g. ngajirangu* [*ngaji-rangu*] or [*ngajira-angu*]). I have chosen *-rangu* as the underlying form, conditioned by stems which contain a liquid in the final syllable although the number of syllables in the stem may also influence the form of the suffix.

-angu	on most stems ending in $C_{[+liquid]}$ V; stem-final vowel deletion applies (*ngajira-angu* 4.285, *kaparli-angu* [sister.in.law-DY]
-rangu	on most stems ending in $C_{[-liquid]}$ V (*kami-rangu* [granny-DY], *pipi-rangu* [mother/child-DY]
-nyangu	idiosyncratic forms (*Panaka-nyangu* 4.286, *mali-nyangu* [mother.in.law-DY])

As with most suffixes, stem-final vowel deletion also applies. In stems ending in /rtu/, the retroflex stop becomes a rhotic glide (see §2.3.6). Hence *ngunurtu-rangu* > *ngunurangu* 'a pair of older sisters', *jampartu-rangu* > *jamparangu* 'grandparent/child'.

4.285 *ngajira-**angu*** *wanyja-n* *nga=rna=mpalany*
father&son-**DY** leave-PRES CAT=1SG.S=2DU.O
'I'm leaving you father and son pair.' (3Sen31)

4.286 *pantu* *wanyjirra* *ngijakura* *Panaka-**nyangu**,* *yarlpurru,*
MED other I.GEN section.name-**DY** lawmate

wanyjirra-ja *yitulal,* *ngapa-ngka* *nga=ni* *karti-ma-na*
other-LOC wet.season water-LOC CAT=3PL.S hold-AUX-PST
'They grabbed that other one, Panaka like me, my contemporary, in the following wet season.' (FK67)

4.6.6.3 *-(ra)marta* (PLKIN) 'plural kinship'

The plural kinship *-(ra)marta* marker has two allomorphs, the first is homophonous with the comparative suffix:

-marta on stems ending in $C_{[+liquid]}$ V
(*kaparli-marta* [sister-in-law-PLKIN], *jamura-marta* [spouses-PLKIN])
-ramarta on others (*pipiramarta* 4.288)

It denotes three or more people in a reciprocal relationship.

4.287 *nyarlu-yarri-nya=ni* *ngajira-**marta*** *nyalara-ja* *Martuwarra-ja*
dead-INCH-PST=3PL.S father&son-**PLKIN** PROX-LOC Fitzroy.River-LOC
'All those fathers and their sons died here in river country.' (1R26)

4.288 *ya-narrinya=ngarni* *pipi-**ramarta***
go-NARPST=1PL.EX.S mother-**PLKIN**
'We would all go together, mother and daughters.' (1P7)

4.6.6.4 *-ngurru* 'mob'

The suffix *-ngurru* is used a few times on personal or placenames to signify a group of people usually associated with the referent of the marked nominal. In Wangkajunga, a similar form, *-ngurrun* occurs with the same function (Jones 2011:77). In disassociating the speaker from group, the Mangarla term also conveys a sense of otherness.

4.289 *Udialla-ngurru*
placename-mob
'the people who lived at Udialla'

4.290 *Mijipa-ngurru*
personal.name-mob
'those people who associate with Mijipa'

4.7 *-pa* 'and'

The suffix *-pa* is a nominal conjunction which coordinates nominals within an NP as well as NPs within a clause. As conjunction can be also achieved by simple apposition, its use is optional and it may occur on one (4.291) or more of the elements it unites (4.292-293), always after inflection and in word-final position. Conjoined NPs are further examined in §9.4.1.

4.291 *pantu=pala kurna-narrinya wulu-ngku-**pa** kampaja-ju*
MED=3DU.S ingest-NARPST father-ERG-**and** mother-ERG
'Father and mother ate it.' (HTK50)

4.292 *wulu-**pa** kampaja-**pa** kirlaki-**pa** ngijakura Mangarla-artu*
father-**and** mother-**and** father's.father-**and** I.GEN Mangarla-COM

*mininy kampaja-**pa***
language mother-**and**
'My father and his father and my mother spoke Mangarla.' (2D36)

4.293 *purlka kurrku=ni wirrja-nya warlu kankarni-**pa** kankarni-**pa***
big pile=3PL.S put-PST fire up.top-**and** up.top-**and**
'They piled the wood up higher and higher.' (Ngi60)

Adjacency is not a requirement of conjunction. Example (4.292) illustrates a conjoined NP expressed discontinuously with the coordinand *kampaja-pa* occurring after intervening information. A single coordinand with *-pa* can be expressed while the other is elided and interpreted from context.

4.294 *ngayu-**pa**=rna ya-nku*
I-**and**=1SG.S go-FUT
'Can I go too?' (G48)

Nominalised verbs can also be conjoined by *-pa*, such as those in cosubordinate constructions (§13.2) in (4.295), and perfect clauses (§13.3.3, §13.4.2) marked by the source suffix complementiser in (4.296).

4.295 *nyalartu=na wanti ningarra=wun kanti-nu marru paru*
PROX=3SG.S be.PRES true=WELL hit-INF head lower.back

*muku-nu kanti-nu-**pa** ma-nu*
club.AUX-INF hit-INF-**and** get-INF
'This one does it properly, hits it, (on the) head (and) lower back; he clubs it, kills it and gets it.' (HTG83-4)

4.296 *ngawayi mapu=na=ngka=pala ngurrja-na kujarra-ju Mangarla*
yes(NK) good=3.S=2SG.OBL=DU.S talk.about-PST two-ERG Mangarla

*mininy pantu kartu-yangka yarrkal-pu-ngangka kampaja-ju-**pa***
language MED child-SRC hunting-AUX-INF.SRC mother-ERG-**and**

*wulu-ngku waji-ma-nangka ngapa-angka-**pa** wakurr-ma-nangka-**pa***
father-ERG keep-AUX-INF.SRC water-SRC-**and** dig-AUX-INF.SRC-**and**

mayi-yangka-pa yu-ngu-yangka-pa
veg.food-SRC-**and** give-INF-SRC-**and**
'Alright, those two told you a good Mangarla story about how they went hunting as children, about how their mother and father used to look after them, and dug for water and gave them food.' (2D1)

5 Pronominals

Pronominals comprise a closed subclass of nominal which host the same range and forms of inflections and derivational suffixes as other nominals. As unbound lexical items, they may refer to an entity, location or event and may occur with or without a coreferent nominal in the same clause. Three different categories of pronominal which have specialised uses and semantic restrictions are distinguished: free personal pronouns (§5.1), interrogative/indefinite pronouns (§5.2) and demonstratives (§5.3). A separate class of bound or enclitic pronouns is described in §6.

5.1 Free Personal Pronouns

Free personal pronouns in Mangarla typically function as arguments. As for other nominals, their expression is optional. As clitic pronouns occur in most clauses to identify participants, free pronouns are used mostly for emphasis or clarification. Mangarla recognises first, second, and third persons and singular, dual, and plural number. First person non-singular pronouns further distinguish whether or not the hearer is included (inclusive and exclusive). Table 5.1 gives the forms for each person.

Table 5.1 Personal pronouns in Mangarla

	SinGular	**DUal**	**PLural**
1 INclusive		*ngaliyarra*	*nganyjurru*
1 EXclusive	*ngayu*	*ngalyarra*	*nganarni*
2	*nyuntu*	*nyumpala*	*nyurra*
3	*pani*	*paniyarra*	*paniyarti*

Separate person and number components can be identified in some forms. While second person dual employs *-pala,* also the number marker in the second and third person enclitic series (§6.1.1), the regular nominal dual suffix, *-yarra,* is used with first and third persons. Third person plural is also formed by adding the regular plural marker, *-yarti*, to the singular form.

Table 5.2 shows uninflected Mangarla forms alongside the proto-Pama-Nyungan reconstructions as presented in Bowern (2001:252) and stems in five related languages: the two other Marrngu languages, Karajarri (McKelson 1978) and Nyangumarta (Sharp 2004:242), the Ngumpin languages Walmajarri (Hudson 1978:85) and Jaru (Tsunoda 1981:64-65), and Yankunytjatjara from the southern Western Desert (Goddard 1985:116). All first and second person forms closely resemble proto-forms. However, the third person stem, *pani* (also pronounced *parni*) is unlike any in the region, although is reminiscent of the root *palu-* commonly used in Western Desert languages. While that form performs the role of a third person singular pronoun at times and is shown in Table 5.2 for comparison, it exhibits semantic and syntactic differences from a true third person pronoun and is used as a marker of definiteness and third person anaphor (Goddard 1985:116, Jones 2011:127). It is a possible reflex of the widespread Western Desert demonstratives *panya* (recognitional) and *pala* (medial). Jones (2011:127) notes that these three forms 'could be cognates of a possible previous set of demonstratives' with the variation in forms potentially due to residual case marking. Support for Mangarla's third person stem as having such an origin comes from a gap in the demonstrative paradigm where no basic medial demonstrative stem with the expected form *pana-* occurs alongside the proximal and distal forms (§5.3.4.1). The possible grammaticisation of the medial demonstrative is examined in §5.3.7.

Free personal pronouns inflect along ergative/absolutive lines as other nominals and are subject to the same morphophonemic rules. Table 5.3 lists all personal pronouns inflected for ergative, absolutive/dative, the genitive and two locational cases, locative and allative, which commonly mark oblique arguments as well as adjuncts. Ergative, locative and source suffixes are morphophonemically conditioned (§2.3.7) while the genitive, allative and ablative, amongst others, have no allomorphic variation.

Unattested forms in Table 5.3 are proposed as part of a regular paradigm. Most are non-singular forms occurring in oblique and adjunct functions, and their absence from the data is attributed to their formal similarity to the cross-referencing clitic pronouns which occur in most clauses, registering person, number and grammatical function (§6.1). Speakers may therefore omit free pronouns for verbal economy.

Table 5.2 Free personal pronouns in Mangarla compared with proto-Pama-Nyungan and five neighbouring languages

	Proto-PN	**Mangarla**	**Karajarri**	**Nyangumarta**	**Yankunytjatjara**	**Walmajarri**	**Jaru**
1 SG	*ngay	*ngayu*	*ngaju /ngayiju*	*ngaju*	*ngayu-*	*ngaju*	*ngaju*
2 SG	*ngin	*nyuntu*	*nyuntu*	*nyuntu*	*nyuntu-*	*nyuntu*	*nyuntu*
3 SG	*NHu/*ngu (m) *NHan (f)	*pani*	*kinyangka*	*paliny*	*palu-*	*nyantu*	*nyantu*
1 DU.IN	*ngali	*ngaliyarra*	*ngali*	*ngali*	*ngali-*	*ngalijarra*	*ngali*
1 DU.EX		*ngalyarra*	*ngalina*	*ngalaya*		*ngajarra*	*ngajarra*
2 DU	*NHuNpalV	*nyumpala*	*nyumpala*	*nyumpula*	*nyupali-*	*nyurrajarra*	*nyuynpula*
3 DU	*pula	*paniyarra*	*kinyangkajarra*	*pulany*	*pula-*	*nyantujarra*	*nyanpula*
1 PL.IN	*ngana	*nganyjurru*	*nganyjurru*	*nganyjurru*	*ngana-*	*ngalimpa*	*ngalipa*
1 PL.EX		*nganarni*	*nganina*	*nganarna*		*nganampa*	*nganimpa*
2 PL	*NHurra	*nyurra*	*nyurra*	*nyurra*	*nyurra-*	*nyurrawarnti*	*nyurrara*
3 PL	*THana	*paniyarti*	*kinyangkarrangu*	*jana*	*tjana-*	*nyantuwarnti*	*nyantu*

Table 5.3 Case marking on free personal pronouns

Person/No	Absolutive/ Dative†	Ergative	Genitive	Locative	Allative
1 SG	*ngayu*	*ngayungku*	*ngijakura*	*ngayungka*	*ngayukarti*
2 SG	*nyuntu*	*nyuntungku*	*nyuntukura*	*nyuntungka*	**nyuntukarti*
3 SG	*pani*	*paningku*	*panikura*	*paningka*	*panikarti*
1 DU.IN	*ngaliyarra*	*ngaliyarraju*	*ngaliyarrakura*	**ngaliyarraja*	**ngaliyarrakarti*
1 DU.EX.	*ngalyarra*	*ngalyarraju*	*ngalyarrakura*	**ngalyarraja*	**ngalyarrakarti*
2 DU	*nyumpala*	*nyumpalaju*	**nyumpalakura*	**nyumpalaja*	**nyumpalakarti*
3 DU	*paniyarra*	*paniyarraju*	**paniyarrakura*	**paniyarraja*	**paniyarrakarti*
1 PL.IN	*nganyjurru*	*nganyjurruju*	*nganyjurrukura*	**nganyjurruja*	**nganyjurrukarti*
1 PL.EX	*nganarni*	*nganarniju*	*nganarnikura*	**nganarnija*	*nganarnikarti*
2 PL	*nyurra*	*nyurrangku*	*nyurrakura*	*nyurrangka*	*nyurrakarti*
3 PL	*paniyarti*	*paniyaru/ paniyartuju*	*paniyartikura*	**paniyartija/ *paniyara*	**paniyartikarti*

† Some speakers attach the *-ku* suffix for the dative (§4.3.3)

* unattested form

Conflated forms of the plural marker followed by ergative and locative inflections (§2.3.6) apply to third person plural where *-yaru* conflates *-yarti-ju* 'PL-ERG' (§4.3.2). The same process which produces the locative *-yara* from *-yarti-ja* is also given in Table 5.3, by analogy, although unattested on this particular pronoun. Only one inflected form is irregular. The first person singular genitive has a modified stem whereby *ngayu* > *ngija-* giving *ngijakura* [I.GEN] 'my' (5.1).

5.1 *kaka ngijakura=rna wanyja-na ruru-karra, kaniny Mantikarrakapu*
uncle I.GEN=1SG.S leave-PST crippled-MAN below placename
'I left my uncle who was crippled down at Dampier Downs.' (2J26)

Like other nominals, personal pronouns in adnominal function, such as possessives, are further inflected to agree with their head.

5.2 *ngijakura-ju kaka-ngku nga=na=nya waji-ma-na*
I.GEN-ERG uncle-ERG CAT=3SG.S=1SG.O keep-PST
'My uncle looked after me.' (1M7)

5.3 *nyalara-ja=pa=n mili~mili-ja wirrja-nku*
PROX-LOC=ASSERT=2SG.S paper~RDP-LOC put-FUT

nyuntu-kura-ja mininy-ja
you.SG-GEN-LOC language-LOC
'Here on this paper, you will put it in your language.' (1D73)

Some nominal morphology is not found on free personal pronouns due to their semantic limitations. For example, they are not found as instruments, nor with most adnominal and derivational suffixes such as comparative, manner or characteristic suffixes, and they cannot be verbalised. Examples of inflected personal pronouns are found in §4.3 in absolutive (§4.3.1), ergative (§4.3.2), dative (both unmarked and marked by *-ku-* §4.3.3) locative (§4.3.4), allative (§4.3.5), ablative (§4.3.6), source (§4.3.7) and genitive (§4.3.8) cases.

While case-marking is generally present on all nominals where it is expected, the ergative is sometimes omitted (§4.3.2), especially from personal pronouns, when the grammatical function is semantically unambiguous. In Warlpiri, this phenomenon is limited to first

and second person pronouns (Simpson 1991:164, Laughren 1996:118, Swartz 1982:93), while in Jaru, as in Mangarla, the ergative marker can be omitted from any free pronoun when a pronominal clitic makes its function clear (Tsunoda 1981:95). This can be seen in the next examples which contain unmarked pronouns (bolded) functioning as the subject of transitive verbs (A function), although speakers will sometimes add the ergative marker later during glossing, as occurred with (5.5).

5.4 *mil-ka-nya=yarra parnany* ***ngalyarra***
eye-AUX-PST=1DU.EX.S old.woman **s/he&I**
'She and I saw the old woman.' (G14)

5.5 *mil-ka-ngarri=n* ***nyuntu***
eye-AUX-IPFV=2SG.S **you.SG**
'You are looking at it.' (2D12)

In reflexive clauses, an uninflected free pronoun can optionally host the reflexive BP (5.6 - see §6.2.1 for further detail). However, 'clitic doubling' (Simpson 1991) is permitted, and fully inflected free pronouns can co-occur with BPs (5.7).

5.6 *wajarri* ***nganarni****=rna nganga-nya-wayi*
NEG **we.all.EX**=RR lose-AUX-NPIRR
'We don't forget who we are.' (1D54)

5.7 *nyurra-ngku=nyurra=rna kati-pinya*
you.all-ERG=2PL.S=RR cut-AUX.PST
'You all cut yourselves/each other.' (3Sen83)

Free personal pronouns are not commonly used (5.8) except in formal elicitation (5.9), or for emphasis or clarification in ambiguous contexts (5.10-11). In narratives, object pronouns are more numerous than subject pronouns which often provide topical or old information.

5.8 *mangarri=rninya yinya*
veg.food=1SG.S>3PL.OBL give.PST
'I gave them bread.' (93sen11)

5.9 *mangarri=rninya* *yu-ngarri* *paniyarti* *ngayu-ngku*
veg.food=1SG.S>3PL.OBL give-IPFV they I-ERG
'I am giving them bread.' (93sen10)

In (5.10) both pronominal arguments are given to avoid potential ambiguity since the BP *=la* can have three interpretations, shown in the hypothetical constructs (5.11) where a zero clitic indicates a third person argument which may be either object (5.11a) or subject (5.11b).

5.10 *mil-ka-ngku=la* *ngaliyarra-ju* *pani*
eye-AUX-FUT=1DU.IN.S you&I-ERG s/he
'You and I will see him.' (G114)

5.11 *a) mil-ka-ngku=la*
eye-AUX-FUT=1DU.IN.S/1PL.IN.S>3SG.O
'You and I will see him.'/
'All of us, including you, will see him.'

or

b) eye-AUX-FUT=3SG.OBL
'He will look at him.'

Free personal pronouns can occur in apposition with nominals. In (5.12), the noun *kartiyarti* occurs with an independent first person pronoun. In these examples, both noun and pronoun agree in number and are registered as coreferent by the BP. Their function in the NP is examined in §9.3.4.2.

5.12 *marlka-ngarni* *wani-nyarrinya* *kartiyarti* *nganarni*
sated=1PL.EX.S be-NARPST child.PL we.all.EX
'We children stopped satisfied.' (HTK32)

5.13 *karrpu-na=nany* *panjurn-ta* *paniyarti* *ngarrungarti*
tie.up-PST=3SG.S>3PL.O wood-LOC they person.PL
'He tied them people up to a tree.' (Ngi69alt)

5.2 Indefinite/interrogative pronouns

Members of this pronominal subgroup function as epistememes which express a speaker's lack of knowledge about a particular category of information (Mushin 1995, Haspelmath 1997). Extended by regular case and other nominal morphology, they form a range of epistemic constructions functioning as both interrogatives and indefinites and at least one functions as the complement of verbs of knowledge, perception and communication, and one as the 'hesitation' or 'whatsaname' pronoun. As interrogatives, they typically occur as the first element of the clause but may occur elsewhere as indefinites. They encode three basic categories: entities (Mushin's (1995) 'person' and 'thing'), place and quantity/time. However, there is some overlap in actual use, and forms within each category are not always equivalent. Table 5.4 shows the forms and the stems they are based on.

Table 5.4 Interrogative and indefinite forms

referent	**stem**	**pronominal/ adnominal**	**interrogative/ indefinite**
entity	*ngana-*	*nganartu*	'what/something' 'who/someone'
		ngantu	'what/something' 'who/someone'
		nganijikura	'what', 'who' 'whose'/ -
		nganiji	'someone/something'/'whatsaname'
place	*jarni-*	*jarni*	'where/somewhere', 'how'
	jarra-	*jarra*	'where to/from
		jarrani	'how'
time/ quantity	*nya-*	*nyangal*	'when'
		nyajangu/ nyarrjangu	'how much/many'

With the exception of *jarra*, interrogatives/indefinites take the same morphology as other nominals, although each seems restricted in the range it can take. *Jarra* takes the specialised directional allative *-kurna* rather than the general allative *-karti* (§4.3.5.1). As with other pronominals, most also function adnominally, to help narrow the field of possible referents, translating roughly as 'which/some X'.

A general interrogative particle *wayi,* which does not inflect for case, is used in closed yes/no questions and is described in §8.4.

5.2.1 *ngana-* 'what/something, who/someone'

Ngana is the root which denotes unknown entities, both animate and inanimate. Common throughout the Western Desert and in Ngumpin languages, its use varies, from being a universal 'who/what' interrogative for both animate and inanimate referents in Wangkajunga (Jones 2011:120), Yulparija (Burridge 1996), and Warnman (Burgman 2010:39), to indexing only proper nouns in Pitjantjatjarra and Yankunytjatjara (Eckert and Hudson 1988:119, Goddard 1985:249). In Pintupi, it is case selective, taking only the nominative (Hansen and Hansen 1978:196), while in Ngumpin, *ngana* ('who', 'what name') is the absolutive form, but overt inflections attach to the stem *ngantu-* (Tsunoda 1981:67, Meakins and Nordlinger 2014:189). In Mangarla, only one token occurs with the basic stem.

5.14 *ṉana minin nyundu gura?*
ngana mininy nyuntu-kura
what language you.SG-GEN
'What is your language?' (McK:95)

Elsewhere, it is the stem for two derivational suffixes to which overt inflections are added. The most common of these is the comitative, *-artu*. The resulting stem shares semantic, syntactic, and morphophonological features with the spatial demonstratives (§5.3.1, §5.3.4) which are all subject to syllable elision (§2.3.6) yielding abbreviated allomorphs. The choice of allomorph is affected by the inflections which follow. Parallel forms of the proximal demonstrative can be seen in (5.15-16).

nganartu with ABS, ?DAT (both *-Ø*), ERG, LOC, ABL
> *ngantu* with ABS, DAT (both *-Ø*), ALL, SRC, PURP,

Both other Marrngu languages also have cognate forms, which distinguish between human and inanimate entitites, in Karajarri *ngana*/*ngartu* (Burgman 2005b), and in Nyangumarta, *ngani*/*nganurtu* 'what, something'/'who, someone'. The latter refers solely to humans and takes only absolutive, ergative and genitive inflections (Sharp 2004:256-257).

A second inflection creates the 'whatsaname' pronoun, *nganiji*, which appears to take the genitive exclusively. So-inflected, it functions as an interrogative, able to receive further inflection and is described separately (§5.2.2).

Occurring less frequently than *ngantu,* all tokens of the *-Ø* inflected *nganartu* were recorded at Bidyadanga. The two forms are used interchangeably in the absolutive (5.15-16) and presumably the other phonologically null case, the dative (5.17), although *nganartu* is unattested as an oblique argument.

5.15 *nganartu nyalartu*
what PROX
'What is this?' (2sen165)

5.16 *ngantu nyaltu, ngantu yini*
what PROX what name
'What's this? What's its name?' (2sen110)

5.17 *ñandu ñanña ñadyanyari*
ngantu nga=n-nga ngaja-nyarri
what.DAT CAT=2SG.S-EP cry-IPFV
'Why are you crying?' (McK:70)
(*lit.* 'For what are you crying?')

With polysyllabic suffixes, only the abbreviated *ngantu* is used; with the source suffix it queries cause (5.18), and with the allative (5.20) or purposive (5.21) it queries purpose.

5.18 *ngantu-angka-ju nga-ni yinpi-nya ngantu-angka*
what-SRC-?TOP[19] CAT=3PL.S spear-PST what-SRC
'Why did they spear him? What for?' (FKNgi54)

5.19 *ñanda nga ñanyan gadi man bidyi?*
ngantu-angka nga=nya=n karti-ma-n piji
what-SRC CAT=1SG.O=2SG.S hold-AUX-PRES throat
'Why do you hold my throat?' (McK:76)

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[19] The function of *-ju* after source marking is contentious both here and on the sentence connectors formed from demonstratives (§5.3.6.2 - see footnote 20).

5.20 *ngantu-karti=n warlparni-ngarra purta-nya*
what-ALL=2SG.S to.here-about come-PST
'Why did you come here?' (2sen129)

5.21 *ñandu birri nyanña kantina gulgu?*
ngantu-pirri=nya=n-nga kanti-na kurlku
what-PURP=1SG.O=2SG.S-EP hit-PST elbow
'Why did you hit my elbow?' (McK:73)

Inflected with the allative, *ngantu* can also refer to a location for some speakers, although most prefer the adverbial *jarni* (§5.2.3).

5.22 *ngantu-karti parti-nyarri*
what-ALL go-IPFV
'Where are you going to?' (2sen226)

Segment deletion (§2.3.6) whereby [$rtV_x + CV_y \rightarrow rV_y$] occurs when the suffixes *-ju* 'ergative', *-ja* 'locative' and *-ngu* 'ablative' are added to *nganartu*. Parallel forms occur in other nominals, particularly spatial demonstratives (§5.3.4) and resulting forms are frequently re-inflected. These forms occur rarely, as most *ngana-* interrogative/indefinites in core argument function are unmarked absolutives. Each is attested once and only one, in the ablative (5.23), functions as an interrogative, as an alternative to the source marker on *ngantu* (5.18-19).

5.23 *ñana ruñu ñandyurruny wiranyari*
nganaru-ngu=nganyjurruny wira-nyarri
what-ABL=1PL.IN.O shoot-IPFV
'Why does he throw the boomerang at us?' (McK:130)
(*lit*. 'Why is he hitting us?')

Two other examples are translated as indefinite pronouns, and while it is understood that the same forms could be used as interrogatives, *nganijikura* 'whatsaname.GEN' is the preferred option for questions involving humans and proper names (§5.2.2)

5.24 *nganaru-ju-pa Nyikina-artu-pa, kakurtu nga=ngarni=inya*
anyone-ERG-and Nyikina-COM-and finish CAT=1PL.EX.S=3PL.OBL

jangku-ma-n-nga, jangku-ma-n-nga nga=na=ngarningka
answer-AUX-PRES-EP answer-AUX-PRES-EP CAT=3SG.S=1PL.EX.OBL

paniyaru
they.ERG
'We Nyikina or whoever, alright, we answer them, they answer us.' (2D69-70)

5.25 *nganara-ja=pa=n mili~mili-ja wirrja-nku*
what-LOC=ASSERT=2SG.S paper~RDP-LOC put-FUT

nyuntu-kura-ja mininy-ja
you.SG-GEN-LOC language-LOC
'On paper or whatever, you will put it in your language.' (1D73alt)

When the object of a verb is unknown or unspecified, Mangarla speakers tend to simply omit any referring expression (§11.3.9.3).

5.26 *dyingir manarina*
jinkirr-ma-narri=rna
laugh.at-AUX-IPFV=1SG.S
'I am laughing at someone.' (McK:160)

However, *ngantu,* occasionally functions as an indefinite pronoun, although *nganartu* is not attested as such.

5.27 *kampaja-ju ngantu-ny ka-nga jarna pantu*
mother-ERG what-EP carry-PRES piggy.back MED
'Mother carries someone on her back.' (1R124)

5.28 *ngantu=lku=rtiny nga=ni ngurrja-ntama wanyjirra*
what=RESTR=EXPECT CAT=3PL.S talk.about-PSTIRR other

mininy kujarra kurturtu-pa kakurtu
language two stomach-EP finish
'They could have said something, spoken against him; he was a traitor.'
(Ngi49)

As an indefinite pronoun, it is often augmented by *-ny* or more frequently by *-pa*. The meaning of these augments is not clear. The former is homophonous with the bound pronoun accusative marker (§6.1.1) and also occurs on the indefinite pronoun *jarnikarra* 'unknown activity/kind, somehow' (§5.2.3) where it may have a nominalising function. Optional dubitive clitics are also common markers of indefinite pronouns (Mushin 1995:23), but until its purpose is revealed, *-ny* is simply glossed here as an epenthetic element. The latter suffix, *-pa*, is also a common epenthetic element (§2.3.5), homophonous with a discourse clitic asserting the speakers belief in the proposition, glossed as ASSERT in (5.29), and also homophonous with the nominal conjunction 'and', as glossed in (5.30) and (5.32). In some neighbouring languages, it is a dubitive clitic (Sharp 2004:295, Jones 2011:269). Both augments occur on the interrogative in (5.31).

5.29 *yalparra nga=rna yu-ngku ngantu=pa=ja=n marra-nku*
again CAT=1SG.S give-FUT what-?ASSERT=1SG.O=2SG.S say-FUT
'Later I will give anything you tell me (you need).' (1D99)

5.30 *wajarri yarrkal~yarrkal-pu-ngangka-pa ngantu-pa*
NEG hunting~RDP-AUX-INF.SRC-and what-and
'It isn't about having gone hunting and whatever.' (1D95)

5.31 *ngantu-ny-pa=na wanyjirra, pantu, pantu Lungkayi,*
what-?EP-ASSERT=3SG.S other MED MED placename

Lungkayi Nerrima
placename placename
'What's the name of that other one? That one, that Luluigui and Nerrima.
(1R126)

Reduplicated and with the suffix *-partu* 'TYPE' added (§4.4.3), *ngana* and *ngantu* form expressions meaning 'all sorts of things, everything'.

5.32 *papu-na=ngarni-ya=la panartarti ngantu-pa~ngantu-pa*
forget.AUX-PST=1PL.EX.S-EP=3SG.OBL MED.PL what-and~RDP

wulu-kura-angka
father-GEN-SRC
'We forgot all those things from our fathers.' (HTS37)

5.33 *storeanga ñana wandi baga ñanabadu ñana*
tuwa-angka nga=na wanti paka ngana-partu~ngana
store-SRC CAT=3SG.S be.PRES stick what-type~RDP
'In the store are all kinds of things.' (McK:112)

Both full (5.34) and abbreviated (5.35) absolutive forms, occur in **adnominal function**, to narrow the field of reference. This use is most common with human referents, although *ngantu* is recorded with both human and non-human referents.

5.34 *ñanadu mibar bandu ñaruñu?*
nganartu miparr pantu ngarrungu
what skin.group MED person
'What skin has that man?' (McK:69)

5.35 *wanyjirra=na ngarrungu ngantu ngarrungu nyaltu*
other=3SG.S person what person PROX
'Here's a stranger; who is it?' (2sen111)

5.36 *nyala nguju ngantu kuwi nyaltu, ngantu kuwi*
PROX REC what meat PROX what meat
'Remember this, what meat is this, what kind of meat?' (2J96)

5.2.2 *nganiji* 'whatsaname'

Ngana- is also the stem on which *nganiji* 'whatsaname' is built. The suffix, *-ji* also occurs on characterising suffixes (§4.5). *Nganiji* focuses the hearer's attention in a similar way to the recognitional demonstrative (§5.3.3), urging them to recall the referent from their knowledge bank. It performs all the same functions as other *ngana-* forms and more: as interrogative, indefinite pronoun, hesitation pronoun, and as a substitute for a verb which is temporarily unavailable to a speaker.

As an interrogative, it is usually inflected with the genitive with the expected translation of 'whose'.

5.37 *nganiji-kura kunyarr*
whatsaname-GEN dog
'Whose dog is this?' (2sen113)

It is frequently used to enquire about people, consistent with the custom of referring to people indirectly, not by their own name, but as belonging to a family group. McKelson (1974:47) also records it with the plural marker.

5.38 *N̄anidyigura bandu*
nganiji-kura pantu
whatsaname-GEN MED
'Who is that man?' (McK:47)
(*lit.* 'whose/of whom is that one?)

5.39 *N̄anidyigurardi bandardi*
nganiji-kura-arti pantu-arti
whatsaname-GEN-PL MED-PL
'Who are those men?' (McK:47)

In that work, *nganijikura* (spelt both *nganidyi* and *nganadyi*) occurs as a simple alternative to *nganartu* and *ngantu* to mean 'what/who'.

5.40 *N̄anidyigura*
nganiji-kura
whatsaname-GEN
'What is that?' (McK:48)

5.41 *ñanidyi gura n nyundu yini?*
nganiji-kura=n nyuntu yini
whatsaname-GEN=2SG.S you.SG name
'What is your name?' (McK:95)

The genitive form can be further inflected. In (5.42) it carries comitative inflection while in (5.43), the ergative marks its function as transitive subject.

5.42 *nganiji-kura-artu=n ya-na*
whatsaname-GEN-COM=2SG.S go-PST
'Who did you go with?' (2sen118)

5.43 *nganiji-kura-ju=na=na yita-ka-nya*
whatsaname-GEN-ERG=3SG.S=2SG.O give-AUX-PST
'Who gave you that?' (2sen112)

Without the genitive marker, it functions as an indefinite pronoun referring to both inanimates and animates.

5.44 *pantu-aru ngarrungu-aru nganiji-ya yaji-ngarrinya*
MED-PL.ERG person-PL.ERG whatsaname-EP wait-NARPST
'Those people are waiting for somebody.' (FKsen20)

5.45 *ngujartu=ni=ngki ngurrja-na nganiji*
REC=3PL.S=2SG.O talk.about-PST whatsaname

kartu-yangka parti-nyangka nga=na=ngka=pala
child-SRC go-INF.SRC CAT=3=2SG.OBL=DU.S

Rakartu-ju-pa Janyi-ngku nganiji-ju payulu
personal.name-ERG-and personal.name-ERG whatsaname-ERG anybody(NK)
'Remember how they told you about whatever, about having come in as kids, Rakartu and Janyi and whoever else.' (1D62)

However, *nganiji* is most often heard as a filler, prompting the hearer to supply an unavailable item. This unavailability is not always the result of ignorance. *Nganiji* may replace a name which is known, but temporarily lost to memory (5.46) or that the speaker wants to avoid for cultural reasons (5.47).

5.46 *wanyjirra kuwi nguju nganiji, nganiji kuwi*
other meat REC whatsaname whatsaname meat

yura-karraji wipirti-marta, makarra lurntu nyaltu
swale-PERT small-CPR tail fat PROX
'Another animal, you know, what is it, a whatsaname that lives on flat ground between sandhills, a little one; this one with a fat tail.' (J133)

5.47 *kakarra kaniny Nganiji yina-rra=ja=la ngapa mam*
east below whatsaname name-IMP=1SG.OBL2 water kiddo

Walkirik-ngu
placename(E)-ABL
'(They went) east down to Whatsaname; say the name of the water for me kiddo, out from Halls Creek.' (Nya77)

The lost item may be expressed later in the utterance when memory permits.

5.48 *yurra=lpa=ngarni parti-nya nganiji-karti wayitpal-kura*
night=ASSERT=1PL.EX.S go-PST whatsaname-ALL whitefella(E)-GEN

wayitpal-kura-karti jartarum-karti
whitefella(E)-GEN-ALL stockroom(E)-ALL
'At night-time we went to the whitefella's whatsaname, stockroom.' (FK79)

5.49 *ngalyarra=yarra parti-nya purrku-yartu nganiji-kura-artu,*
s/he&I=1DU.EX.S go-PST old.man-COM whatsaname-GEN-COM

Iliwala-kura-artu, warlparni-ngarra
personal.name-GEN-COM to.here-about
'We both came this way with whatsaname's old man, with Iliwala's (father).
(1M89alt)

In this function, it can also be used adnominally, as with the generic noun *kuwi* in (5.46) or as the genitive modifier in (5.49), and takes the full range of morphology of the class of word it replaces, although it is not attested with number-marking. When replacing a verb, it inflects as a member of the large open *-rra* conjugation, even when substituting for a member of a different conjugation (5.50). It even participates in complex derivations (5.51).

5.50 *kakurtu=ngarni=rna nganiji-rrayi nganga-nya-wayi*
finish=1PL.EX.S=RR whatsaname-NPIRR lost-AUX-NPIRR
'Alright, we can't whatsaname ourselves, can't forget who we are.' (1D44)

5.51 *ngujartu-ngu kilinyman-tu, nganiji-nu-karra-ka-ngarrinya*
REC-ABL moon(NK) whatsaname-INF-MAN-AUX-NARPST

ra-waji-ma-nu-ng-karra-ka-nya kajalu
spread.out-keep-AUX-INF-EP-MAN-AUX-PST ahead
'From where I said, the moon was whatsanaming, cleared a plain ahead.'
(Nya79)

5.2.3 *jarni, jarra, jarrani* 'where/how'

Jarni and *jarra(ni)* are both used to indicate an unknown location and translate as 'where/somewhere'. With additional morphology, both also express the idea of unknown manner or activity, and translate as 'how'. Both are reduced forms of the Nyangumarta and Karajarri terms *wanyjarni* and *wanyjarra* found in similar functions. Those terms are based on the common Pama-Nyungan stem *wanja-* 'where/what' (Dixon 1980:373) and the directional suffixes *-rni* and *-rra*. In Nyangumarta, the two words are interchangeable (Sharp 2004:272) while in Karajarri the former appears to relate to location and the latter chiefly to type or manner (Burgman 2005b). The Nyangumarta *wunyjurru* 'how' is also probably cognate with *wanyjarra*.

While both the Mangarla terms are used in similar contexts, there are some morphological differences which indicate that *jarra* is a member of the specialist directional subclass. This is reflected in the Wangkajunga suffix, *-jarra* used on spatial and temporal nominals associating them to an activity (Jones 2011:70). In Mangarla, *jarni* is used more broadly and only occurs uninflected, or with locative marking, which is optional as with other spatial terms.

5.52 *jarni-ngka=ni wanti, ngalyarra Kinyakarrartu-arra*
where-LOC=3PL.S be.PRES s/he&I personal.name-DU
'"Where are they?" Patsy and I (cried out).' (1M36-37)

5.53 *jarni nyurra-kura kampaja-pa wulu-pa*
where you.all-GEN mother-and father-and
'Where are your parents?' (1M41)

Both forms indicate directionality with extra morphology. Direction towards an unknown entity is marked by the allative on *jarni*, but *jarra*, which only ever indicates start or end points, takes the directional allative *-kurna* '-wards' rather than the regular allative.

5.54 *jarni-karti ya-na wirli~wirli-yartu*
where-ALL go-PST fishing.line~RDP-COM
'Where did he go with the fishing line?' (2sen117)

5.55 *jarra-kurna nga=n ya-n*
where-wards CAT=2SG.S go-PRES
'Where are you going to?' (93sen32)

Both forms occur with the ablative suffix, which is the same for both directionals and general nominals.

5.56 *jarra-ngu=nyurru ya-na*
where-ABL=2PL.S go-PST
'Where did you all come from?' (1P31)

5.57 *jarni-ngu=n kapa-na*
where-ABL=2SG.S come-PST
'Where did you come from?' (2sen5)

Mushin (1995:14) finds that epistememes of place ('where') can also encode identity ('which'). In Mangarla too, *jarni* is used as a general interrogative of identity, indicating set membership, both pronominally and adnominally as an 'epistemic determiner'. In (5.59) it agrees with the allative marking of *ngurra* while in (5.60) two potential translations are possible. *Jarra* is not used in this context.

5.58 *jarni nga=n-nga wulyu-yu-n*
where CAT=2SG.S=EP good-AUX-PRES
'Which one would you like?' (2sen31)

5.59 *jarni-karti=n ngurra-karti ya-nku*
where-ALL=2SG.S camp-ALL go-FUT
'Which house will you go to?' (2sen121)

5.60 *jarni kunyarr nyuntu-kura*
where dog you.SG-GEN
'Which dog is yours?'/ 'Where is your dog?' (2sen125)

As an indefinite pronoun, *jarni* translates as 'somewhere' or 'wherever'. In the first example, the speaker was trying to avoid smoke after a wind change.

5.61 *jarni-ngka nga=la jartu-nku*
where-LOC CAT=1DU.IN.S move-FUT
'Let's move somewhere.' (HTD74)

5.62 *jarni-ngka=na parli-pu-ngku pani-ngku panaru kuwi*
where-LOC=3SG.S spot-AUX-FUT s/he-ERG MED.ERG meat
'He will spot prey wherever it is, that one.' (HTG127)

Both *jarni* and *jarra*, combine with the manner suffix, to express 'how'. However, *jarra* is extended to *jarrani* before derivation.

5.63 *jarni-karra=n purta-nya nyuntu*
where-MAN=2SG.S come-PST you.SG
'How did you get here?' (2sen130)

5.64 *dyaranigara n maranyari*
jarrani-karra=n marra-narri
how-MAN=2SG.S say-IPFV
'How do you say this?' (McK:48)

Both these forms may be used to form a complex predicate with the verbalising auxiliary *ka-n* or the inchoative to mean 'do what (to)' or 'be like what'/ 'what happened'. While *jarni* retains the manner inflection before derivation, *jarrani* does not.

5.65 *dyarani ganguṉani or dyaranaru ṉani*
jarrani-ka-nku=ngarni jarran(i-y)arru=ngarni
how-AUX-FUT=1PL.EX.S how-INCH.FUT-1PL.EX.S
'What shall we do?' (McK:RT)

5.66 *jarni-karra-ka-nku=n*
where-MAN-AUX-FUT=2SG.S
'What will you do?' (2D38)

5.67 *jarni-karra-ka-nku=n nyuntu-ngku*
where-MAN-AUX-FUT=2SG.S you.SG-ERG
'You will do whatever (you like).' (1D80)

5.68 *ngurrja-narri=rna=ngka kurlila-ng-angka ngarrungu,*
talk.about-IPFV=1SG.S=2SG.OBL south-EP-SRC person

jarni-karra-ny-jarri-nya
where-MAN-EP-INCH-PST
'I'm telling you what became of the men from the south.' (1D59)

As well as requesting information, *jarnikarra*, often reduplicated, also denotes an indefinite property, activity or manner translating as 'whatever kind/way, however', combining the ontological categories of manner and property (Haspelmath 1997:30). In this context, *jarnikarra* is frequently augmented by *-ny* in the same way as *ngantu*. Glossed as 'EPenthesis' (5.68, 5.71), possible meanings for this element are discussed in §5.2.1.

5.69 *nyalara-ja=n pirti~pirti-ma-nku jarni-karra-pa~jarni-karra-pa*
PROX-LOC=2SG.S create~RDP-AUX-FUT where-MAN-and~RDP
'You will decorate this one, in whatever way.' (HTS78)

5.70 *nga=na=nya jurrungkul~jurrungkul-ma-ninya, wurna-pa*
CAT=3SG.S=1SG.O show~RDP-AUX-NARPST move.off-and

yarrkal-pu-ngu kuwi warri-nu-karra-pa, jarni-karra-pa jiya-nu-pa
hunting-AUX-INF meat seek-INF-MAN-and how-MAN-and follow-INF-and
'He taught me about hunting expeditions, looking for meat, tracking and whatever else.' (HTS31)

5.71 *jarni-karra-ny nyuntu-ngku liyani-ka-nku*
how-MAN-EP you.SG-ERG desire-AUX-FUT
'Whatever you want.' (2D54)

As an indefinite pronoun, it often functions as, or introduces, the complement of verbs of cognition, perception or communication (§13.4).

5.72 *ngawayi warrimpa purta-angka=n marra-nku=ja=n*
yes(NK) by&by come.FUT.SRC=2SG.S say-FUT=1SG.OBL=2SG.S

jarni-karra-ny pani
where-MAN-EP s/he
'Yes, when you have come back, you will say to me how she is.' (1D111)

5.73 *nyaltu parnany nga=na purta-nya wit-ngu*
PROX old.woman CAT=3SG.S come-PST distant-ABL

pina~pina-ma-nu-karra jarni-karra ngarrungu wanti
hear~RDP-AUX-INF-MAN where-MAN person be.PRES
'This old woman came from a long way away to understand how Aboriginal people live.' (HTS40)

5.2.4 *nyajangu* 'how many'

An unspecified number or quantity is denoted by *nyajangu* 'how many/much/some amount', also pronounced *nyarrjangu* (5.74). It is only found as an interrogative.

5.74 *nyajangu kartiyarti*
how.many child.PL
'How many babies are there?' (PSh57)

5.75 *nyarrjangu kuwi nga=n ma-na*
how.many meat CAT=2SG.S get-PST
'How many fish did you get?' (2sen131)

5.2.5 *nyangal,* 'when'

The form used to denote an unspecified time is *nyangal* 'what time/when/sometime'. This consists of the interrogative root *nya-* and *ngal* 'time(s)' (§4.6.4), which occurs with quantifiers specifying more than one (*e.g. kujarra ngal* 'twice') and see below.

5.76 *nyañal ñan gabbana*
nyangal nga=n kapa-na
when CAT=2SG.S come-PST
'At what time did you come?' (McK:48)

5.77 *nyangal nga=n ya-nku*
when CAT=2SG.S go-FUT
'When will you go?' (93sen36)

The phrase *nyangal ngal* is has the same meaning as *nyajangu* (§5.2.4) 'how many times'.

5.78 *nyangal ngal*
when times
'How many times?' (2sen22)

McKelson (1974:59) records the variation *nyaja ngal* 'how many times' but gives no example. This appears to be the form *nyajangu* with final syllable deleted. No examples of either form functioning as an indefinite pronoun are attested.

5.3 Demonstratives

5.3.1 Introduction

Demonstratives comprise a closed class of pronominal whose members undergo the same inflectional and derivational processes as other nominals, subject to semantic restrictions. Demonstratives call on the hearer to focus their attention on a particular referent: entity, activity, location, or proposition. They can be either endophoric or exophoric in reference (§5.3.6) and are polysemous in that they both specify the referent as well as give its relative location or prominence in either the situational or discursive context. Demonstratives exist 'in paradigmatic relation to elements which [....] locate the entity referred to on a distance scale' (Himmelmann 1996:210). In Mangarla, three positions are distinguished, proximal, medial, and distal, shown in Table 5.5. However, although they are referred to throughout as 'spatial' demonstratives, these forms cannot always be reduced to a spatial interpretation and are employed in a wide range of contexts where discourse or pragmatic considerations override distance. Spatially contrastive terms are adopted here to reflect their differences and for purposes of cross-linguistic comparison. Rather than simply referring to objects using the speaker's body as an anchor point, deixis is multidimensional and needs to be interpreted from a stance of accessibility and relevance, as a result of social interaction, memory or prior discourse (Hanks 2005). These points will be illustrated below.

Two additional specialised deictics are included in the demonstrative paradigm on the basis of shared morphosyntactic features and semantics. The first 'non-spatial' demonstrative is the indicational, *yakarni* 'thus', which indicates the nature of the action or entity spoken about through comparison with another which is observable. In some ways it can be classified on the distance scale as 'immediate' or 'in plain view', with a similar discourse function (§5.3.6.2). The other is the RECognitional *nguju* 'you know the one' which signals an event or entity as known. These two occur in limited contexts and without the full range of nominal inflections.

Table 5.5 shows that each category of demonstrative has several stems. The labels 'basic', '-ra', 'long' and 'short' are given to facilitate the discussion. The last three are clearly derived from the 'basic' form, which may have historically been an adverbial form to which the comitative suffix has been added to give the 'long' form for referential use. The '-ra' and 'short' forms have resulted from different morphophonemic processes operating on the 'long' form. However, if forms were originally distinguished according to syntactic function, slippage has occurred and synchronically, all forms are allomorphs, selected by inflectional categories. More detail about each form is given in subsequent sections. The indicational and recognitional both lack the '-ra' form, while the latter also lacks a 'short' form. The medial is given in both 'riverside' and 'bush' (*panpartupanpartu* (pp)) dialects in Table 5.5. Only two speakers use the pp dialect and do so consistently, although not exclusively. The medial 'short' form and the other two spatial categories, proximal and distal, do not exhibit dialectal differences. The general interrogative *ngana* (§5.2.1) is included in Table 5.5 for comparison since it shares many morphophonological features with the spatial demonstratives (*cf.* Diessel 2003 and Enfield 2003).

McKelson (1974) devotes few lines to his description of demonstratives. He identifies what I refer to as 'long' and 'short' forms of the proximal as allomorphs from different dialects, the former belonging to the riverside dialect, together with *yalartu* and *yala* while the latter combines with *yaltu* and *panartu* in the bush (pp) dialect. However, he notes that in 'practice they seem to be intermingled freely' (p. 120). A couple of incidental examples of the proximal with locative case marking (*nyalaraja* 'here') occur in that work and while *pantu* also occurs, it is not officially noted until the Topical Vocabulary (McKelson 1989a:1). The medial and distal forms are both glossed as 'that' with no account of their differences given in either work.

Table 5.5 Demonstrative stems

		meaning	**basic form**	**-ra form**	**long form**	**short form**
NON-SPATIAL	indicational	thus	*yakarni*	_____	*yakarnartu*	*yakarntu- / yakarnu*
	RECognitional	you know	*nguju*	_____	*ngujartu*	_____
SPATIAL	PROXimal	this here	*nyala*	*nyalara*	*nyalartu*	*nyaltu*
	MEDial (pp dialect)	that there	_____ _____	*panara/ panpara-*	*panartu / panpartu*	*pantu / pantu*
	DISTal	that far	*yala*	*yalara-*	*yalartu*	*yaltu-*
	interrogative	who/what	*ngana*	*nganara-*	*nganartu*	*ngantu*

The forms and inflections of demonstratives are examined in the following sections (indicational §5.3.2, recognitional §5.3.3 and spatial demonstratives §5.3.4). The syntactic distribution of demonstratives is presented in §5.3.5 and they are described performing six different functions in §5.3.6. Section 5.3.7 discusses the possible grammaticisation of the medial as an explanation for the absence of a 'basic' medial form.

5.3.2 Indicational

The indicational, *yakarni* 'thus', has a directive force calling on the hearer to focus their attention on an event or display of a particular action or quality, and is often accompanied by a gesture or demonstration. It has at least two forms, the 'basic' (5.79) and 'long' (5.80) forms. A 'short' form is included in Table 5.5 but difficult to substantiate. One speaker is heard to say *yakarntu* on two occasions (5.83), and the form *yakarnu,* also heard, may simply be a variation of the 'basic' form. Final vowel variation is common in all demonstratives, as will be shown. Uninflected tokens are rare, five in all, and the comparative (§4.4.1) or manner (§4.3.11) suffixes are typically added.

5.79 *yakarni=pala jima-na=pala*
thus=3DU.S touch-PST=3DU.S
'This is how they touched (the ground).' (MC63)

5.80 *kampaja ngijakura, yakarnartu=rna ka-ngarrinya,*
mother I.GEN thus=1SG.S take-NARPST

wurna *ka-ngu-karra*
move.off take-INF-MAN
'I used to take my mother like this, when we went for a walk.' (1P6)

The comparative suffix only attaches to the 'basic' form and refers to entities or their characteristics (5.81), while all forms take the manner suffix. These generally refer to actions or events (5.82-84), although sometimes refer to entities or qualities.

5.81 *kajana* *wipirti* *yakarni-marta*
boy small thus-CPR
'I was just a small boy, only about this high.' (1R7)

5.82 *yakurr* *yini* *nga=pala* *parti-nyu-karra-ka-nya* *yakarni-karra*
no.good name CAT=3DU.S go-INF-MAN-AUX-PST thus-MAN
'They went on like that via that place with the bad name' (Nya59)

5.83 *kamurra* *wantayi* *kuli-yangka* *nguju=lparri*
uncertain be.NPIRR anger-SRC REC-ASSERT

wayitpal *pu-ngarri* *nga=ni=iny=kulu* *yakarntu-karra*
whitefella(E) hit-IPFV CAT=3PL.S=3PL.O=ANTIC thus-MAN
'If they stop here they might go around killing whitefellas in anger, you know, like before.' (Ngi46)

5.84 *yakarnartu-karra=rna* *kanyi-nku*
thus-MAN=1SG.S mix-FUT
'I will knead it like this.' (HTD15alt)

These augmented forms serve as stems for further inflection, such as locative case (5.85-86), directional suffixes (5.87) and verb derivation (5.88). However, they are never found with inflections associated with entities such as ergative case or number, indicative of their primarily adverbial nature (§5.3.5.3).

5.85 *nganarni=ngarningka* *kapa-narrinya* *yurrany~yurrany-marta*
we.all.EX=1PL.EX.OBL sit-NARPST sunrise~RDP-CPR

kara wangarr-ja yakarnu-karra-ja
west shade-LOC thus-MAN-LOC
'He would sit down with us early in the morning when shadows point west, like they do now.' (1J79)

5.86 *yakarni-marta-ja warnku*
thus-CPR-LOC stone
'On this kind of hill (proper hill not sandhill)' (1J170)

5.87 *pantu palma=pala jiya-na, nyalartu ralinyja, Pirrkapu-ngu*
MED creek=3DU.S follow-PST PROX north placename-ABL

yakarnu-karra-kurti, Yarluka-ngu, panaru-ngu
thus-MAN-along placename-ABL MED-ABL
'They followed that creek here to the north, from Pirrkapu, along that side like that, through Yarluka, from there.' (MC35)

5.88 *nga=rna=la purtarra, yakarnu-karra-ka-n nga=rna=la*
CAT=1SG.S=3SG.OBL around thus-MAN-AUX-PRES CAT=1SG.S=3SG.OBL
'I do like this all around it.' (HTD58)

5.3.3 Recognitional

The RECognitional *nguju* 'you know the one' calls upon the hearer to locate the referent in their memory of some previous shared experience or utterance. The recognitional only has two forms: the 'basic' (5.89) and 'long' (5.90).

5.89 *nguju=lparri kapa~kapa wani-nya wakaj-kuyarra nyaltu ngarrungu*
REC=ASSERT act.badly~RDP be-PST complete-every PROX person

nga=ni=iny pinya
CAT=3PL.S=3PL.O hit.PST
'You-know-who acted badly while they killed all these people.' (FKNgi100)

5.90 *ngujartu wayitpal yakarntu ka-narri=nany=kulu*
REC whitefella(E) thus do-IPFV=3SG.S>3PL.O=ANTIC

pu-ngarri=nany=kulu *payulu*
hit-IPFV=3SG.S>3PL.O=ANTIC anybody(NK)
'So they won't go around doing that to whitefellas like before, killing everybody.' (Ngi55alt)

The 'basic' form, *nguju,* may host enclitics such as discourse markers and BPs (5.89), but only the 'long' form, *ngujartu*, can take further inflection, such as dual number marking (5.91), and the ablative suffix (5.51). However, it most commonly occurs in unmarked absolutive function (5.92).

5.91 *ngujartu-arra=pala=palany* *panaru* *mil-ka-nya* *kakarra*
REC-DU=3DU.S=3DU.O MED.ERG eye-AUX-PST east
Those two (snakes) saw the two (people) I told you about before, in the east. (MC38)

No examples are recorded with ergative or other case marking, but due to the ability of the recognitional to index entities (including those in object and oblique functions), places and propositions (§5.3.6.4), further investigation could reveal that a full range of case markers are possible on the 'long' form, in the appropriate context.

Six tokens of the uninflected 'basic' form, (four from one speaker), show variation of the final vowel from /u/ to /a/ ((5.89) *cf.* (5.92)). No explanation for this has been found, although it may have a discourse function. All forms occur in the same contexts and are analysed here as allomorphs.

5.92 *nguja=ni* *pinya* *yulpurru*
REC=3PL.S hit.PST before
'They killed you know who earlier.' (FKNgi47)

5.3.4 Spatial demonstratives

Spatial demonstratives index referents on a distance scale with three points to indicate their relative closeness to the speaker or other implied deictic centre. The proximal indexes a referent which is relatively close to, or in the immediate attention of, the speaker. The medial is the dominant form, comprising 60% of all spatial demonstrative uses. It indicates a reference point which is relatively distant, simply being further than some other point under consideration. The distal does not occur as frequently as the other

two, comprising only 4.5% of all spatial demonstrative tokens. It is used to refer to events, entities or places located relatively far away. The proximal and distal are used in contrast with the medial. Spatial contrasts are further examined in §5.3.6.1.

As in other languages of the region, inflectional and derivational processes select different forms of spatial demonstrative for their expression. Of two forms of the adnominal medial ('proximal:mid') in neighbouring Nyangumarta, only one takes locative and ablative suffixes (Sharp 2004:260). In the Ngumpin languages Jaru and Bilinarra, each spatial demonstrative has two forms, one of which is limited in its inflectional and derivational possibilities (Tsunoda 1981:62, Meakins and Nordlinger 2014:169).

Table 5.6 shows the declension of spatial demonstratives and gives the number of times each form occurs in the Jarlmadangah corpus. The first column gives inflectional categories. The first row shows stem-final vowel variation found in uninflected forms. This occurs in all but the 'basic' forms and, apart from the '-ra' forms (§5.3.4.3), it is not possible to determine any conditioning factors. The *panpartupanpartu* dialect form of the medial is included with other medials on a separate line labelled 'pp'. A blank cell shows a form is unattested as expected, while a dotted line indicates an unattested form which would be expected in an otherwise complete paradigm. The source inflection is not included as it has a special discourse function which is described in §5.3.6.3.

Table 5.6 shows that allomorphy of the stem is largely driven by the suffix with 'basic' and '-ra' forms selected for locative and ablative marking; the ergative marker only occurs on the '-ra' form; the genitive, allative and manner suffixes select the 'short' forms; and 'long' forms only are used when number is marked, including with the portmanteau plural ergative *-yaru* (§4.3.2). Non-core cases like comitative (including when used with the errgative on instruments), and the derivational comparative suffix occur on both '-ra' and 'short' forms. The manner suffix is attested only on the 'short' form of the medial.

It is notable that the majority (62%) of spatial demonstratives occur without additional morphology. This may be explained by several factors. Firstly, both the absolutive and dative cases have zero-marking. Secondly, pronominals, including demonstratives, are frequently unmarked for case, especially if they occur with a coreferential case-marked nominal or if used adverbially. Thirdly, variation in '-ra' forms generally reflects the final vowel of a case suffix, reduced by morphophonemic processes (§5.3.4.2).

Table 5.6 Spatial demonstratives by inflection

	basic form		-ra form			long form			short form		
suffix	**Prox**	**Distal**	**Proximal**	**Medial**	**Distal**	**Proximal**	**Medial**	**Distal**	**Proximal**	**Medial**	**Distal**
Ø 517 (pp 0)	*nyala 11*	*yala 13*	*nyalara 11* *nyalaru 3*	*panara 35* *panaru 14* ----------	---------- ----------	*nyalartu 62* *nyalarta 3*	*panartu 41* *panarta 20* ----------	*yalartu 2* ----------	*nyaltu 124* *nyalta 5*	*pantu 156* *panta 17*	---------- ----------
LOC 99 (pp 14)	*nyalangka*	*yalangka*	*nyalaraja*	*panaraja* *panparaja*	*yalaraja*						
ABL 33 (pp 0)	----------	*yalungu*	*nyalarungu*	*panarungu* ----------	*yalarungu*						
ERG 17 (pp 1)			*nyalaruju*	*panaruju* *panparuju*	----------						
DU 38 (pp 0)						*nyalartarra*	*panartarra* ----------	---------	*nyaltarra*	*pantarra*	---------
PL 38 (pp 2)						*nyalartarti*	*panartarti* *panpartarti*	*yalartarti*	----------	*pantarti*	----------
PL.ERG 16 (pp 2)						*nyalartaru*	*panartaru* *panpartaru*	----------		*pantaru*	
ALL 20									*nyaltukarti*	*pantukarti*	*yaltukarti*
GEN 9									*nyaltukura*	*pantukura*	----------
COM 1 **INST** 3			---------- ----------	*panarartu* *panarartuju*	---------- ----------				---------- ----------	*pantartuju*	----------
MAN 15									----------	*pantukarra*	----------
CPR 5			*nyalaramarta*	----------	----------				----------	*pantumarta*	----------

pp panpartupanpartu dialect

----- expected form is unattested

In the interests of space, all three spatial contrasts will be illustrated throughout this section, but not in every form. Where possible, the reader will be referred to examples given elsewhere.

5.3.4.1 'Basic' forms

The 'basic' forms are also the stems on which other forms are based. The 'basic' paradigm has no medial form, possibly accounted for by the use of *pani* as the third person pronoun (§5.3.7). The proximal and distal 'basic' forms occur uninflected in (5.93-94) and with locative and ablative marking respectively in (5.95-96).

5.93 *warawu kampaja jarni-ngu=n ma-na nyala*
hey mother where-ABL=2SG.S get-PST PROX
'Hey mother, where did you get this from?' (2J63)

5.94 *yala wanyjirra=na pungka-nya*
DIST other=3SG.S fall-PST
'Another one died a long way away.' (1J154)

5.95 *nyala-ngka=rna purlka-arri-nyarrinya kuwi-ngka ngayu*
PROX-LOC=1SG.S big-INCH-NARPST meat-LOC I
'I grew up at this meat place here.' (2J113)

5.96 *yala-ngu kunyarr karrku=ni=palany nganiji-na*
DIST-ABL dog ochre=3PL.S=3DU.O whatsaname-PST

parnti-ma-na karrku
smell-AUX-PST ochre
'From way out there the dogs, whatsanamed them, smelled the ochre on their bodies.' (Nya111)

5.3.4.2 'Long' and 'short' forms

Two stems are referred to as the 'long' and 'short' forms since the 'short' forms are clearly contractions through syllable elision (§2.3.6) of the 'long' forms which appear to be historically derived from the 'basic' forms with the comitative suffix *-artu*. Little else

differentiates them and they are generally interchangeable. Both forms are presented here together, uninflected, the proximal in (5.97) and medial in (5.98).

5.97 *nyaltu=pala pungka~pungka-nya, nyalartu*
PROX=3DU.S fall~RDP-PST PROX
'This is where the two ended up, here.' (MC37)

5.98 *pantu=yinyala paja-narri panartu kilu kuwi*
MED=3PL.OBL2 bite-IPFV MED mouse meat
'In that, he is catching that mouse for them.' (PSan79)

Some speakers deny the existence of the 'long' distal form *yalartu* (5.99), even though more than one speaker uses it on occasions. The 'short' distal form only occurs once in the corpus, when it is inflected with the allative (5.100).

5.99 *mil-ka-ngku=na yalartu=na karri-karra kankarni*
eye-AUX-FUT=3SG.S DIST=3SG.S standing-MAN up.top
'He will see that one way over there standing high up (in the tree).' (HTG13)

5.100 *yaltu-karti nga=rna partu=rna*
DIST-ALL CAT=1SG.S go.FUT=1SG.S

panartaru nga=ni=ja yaji-ngarri mininy-karti
MED.PL.ERG CAT=3PL.S=1SG.OBL wait-IPFV language-ALL
'That lot are waiting for me to go over there (Sydney) with language.' (G3)

Both 'long' and 'short' (5.102, 5.106) forms can take number marking, although it is more common on 'long' forms.

5.101 *nyalartarra=pala parti~parti-nya*
PROX.DU=3DU.S go~RDP-PST
'These two kept going.' (MC51)

5.102 *nyaltarra=ngarni=palany wanyja-na*
PROX.DU=1PL.EX.S=3DU.O leave-PST
'We left both those two behind.' (2J6)

5.103 *yalartarti=nyurru=inya yinya*
DIST.PL=2PL.S=3PL.OBL give.PST
'You all gave it to them over there.' (2sen83)

5.104 *panpartarti nga=ni=nya, ka-nya=ni=nya panpartaru*
MED.PL CAT=3PL.S=1SG.O carry-PST=3PL.S=1SG.O MED.PL.ERG
'That lot (brought) me, those ones brought me.' (1R35)

Since number marking precedes case, non-singular agents are also indexed by these forms. 'Long' and 'short' forms of the medial with dual marking and the regular ergative marker are shown in (5.105-106). Plural nominals in A function are marked by the portmanteau suffix *-yaru* conveying both number and case. This can be seen on the 'long' medial form of the *panpartupanpartu* dialect in the second use, a self-correction, in (5.104) and of the riverside dialect in the second clause of (5.100). Additional examples can be found in §4.3.2 and §2.3.6.

5.105 *marnin-kura=pala ka-ngarrinya panartarra-ju*
woman-GEN=3DU.S carry-NARPST MED.DU-ERG
'They were carrying women's business.' (Nya76)

5.106 *warnji=pala jiya-na pantarra-ju*
alive=3DU.S follow-PST MED.DU-ERG
'Those two followed on alive.' (Nya71)

The 'short' form is statistically the most frequent, comprising 48% of all spatial demonstrative uses. Only this form occurs with allative and genitive markers. The distal is given with allative marking in (5.100) while (5.107) shows a proximal host, and (5.108) gives the medial with genitive-marking.

5.107 *ngayu kakarra-ngu warlparni ya-na nyaltu-karti nyalara-ja*
I east-ABL to.here go-PST PROX-ALL PROX-LOC
'I came from the east to this place, here.' (1P58)

5.108 *pantu-kura wangu nga=na yu-ngarrinya*
MED-GEN wife CAT=3SG.S give-NARPST
'That one gave it to his wife.' (1J86)

The manner suffix is attested only on the 'short' medial form to indicate how an event occurs (5.109). It is also found with the comparative suffix (5.110), and the comitative, (*e.g. pant(u-y)artu* [MED-COM]), which also occurs on '-ra' forms (§5.3.4.3).

5.109 *wipirtarti=na ka-nga kampi-yangka pantu-karra*
small.PL=3SG.S take-PRES egg-SRC MED-MAN
'It takes the little ones from the eggs like that.' (PSan63)

5.110 *kurtiny-ja ka-narrinya=na kurtiny pantu-marta*
bark-LOC do-NARPST=3SG.S bark MED-CPR
'She would do it on bark, that kind of bark.' (HTK37)

5.3.4.3 '-ra' forms

The final series of stems are referred to as '-ra' forms, after their final syllable. These stems are typically selected with locative and ablative inflections, as well as the ergative on singular stems (number markers, which precede the ergative, select 'long' and 'short' forms - §5.3.4.2). Locative '-ra' forms of the proximal and medial are shown below, and the distal is exemplified in (5.129) in the next section.

5.111 *nyalara-ja=lany wirrja-nku*
PROX-LOC=1PL.IN.S>3PL.O put-FUT
'We will leave them here.' (Ngi41)

5.112 *panpara-ja=ngarni wani-nyarrinya*
MED-LOC=1PL.EX.S be-NARPST
'We stayed there.' (FK66)

Stem-final vowel assimilation occurs when the ablative (5.113), and the ergative (5.114-115) are added. Several additional examples with the ablative are given in §4.3.6, the proximal in (4.133) and (4.136), and the medial in (4.132), which is also shown in §5.3.2 (5.87). The '-ra' form of the distal occurs only twice, both from the same speaker, once with locative inflection, as mentioned above, and once with ablative (5.113). It is not attested with the ergative.

5.113 *yalaru-ngu kakurtu wurna=ni ya-narrinya jitany-jurra*
DIST-ABL finish move.off=3PL.S go-NARPST seated-down

nga=nany *turl-karra* *wira-nya*
CAT=3SG.S>3PL.O noise.of.rifle-MAN shoot-PST
'They came from out of sight and shot them all, 'bang', while they were sitting down.' (Ngi72)

5.114 *nga=na* *yaji-ngku* *pani-ngku* *kampaja* *nyalaru-ju*
CAT=3SG.S wait-FUT s/he-ERG mother PROX-ERG
'This one here will wait for mother.' (FKsen36)

5.115 *panaru-ju* *nga=na=nya* *kanti-na* *nimarrangka* *parnta-na=rna*
MED-ERG CAT=3SG.S=1SG.O hit-PST arm break-PST=1SG.S
'That one there hit me and my arm broke.' (G151)

The comitative is also found on '-ra' stems in variation with the 'short' form (§5.3.4.2).

5.116 *panara-artu* *mayi* *kakurtu* *nga=ngarni* *wurta-nu-karra-ka-nya*
MED-COM veg.food finish CAT=1PL.EX.S flow-INF-MAN-AUX-PST
'With that food, alright we would keep on going.' (2J95)

5.117 *laju-nu* *nga=na* *laju-nu* *laju-nu* *laju-nu,*
dig-INF CAT=3SG.S dig-INF dig-INF dig-INF

panara-artu-ju *kana-artu-ju*
MED-COM-ERG digging.stick-COM-ERG
'He's dig, dig, dig, with that digging stick.' (HTG29-30)

While '-ra' forms of the distal and *panpartupanpartu* medial (5.104) always occur with a segmentable case-marker, a large number of proximal and medial '-ra' forms occur with no obvious inflection, and with a large amount of final vowel variation between /a/ and /u/.

5.118 *nyalara=pala* *wanti* *paniyarra*
PROX=3DU.S be.PRES they2
'These two live here.' (MC9)

5.119 *panara=pala wani-nya*
MED=3DU.S be-PST
'Those two stopped there.' (Nya4)

5.120 *panaru=ngarniny purlka-ka-narrinya*
MED=1PL.EX.O big-AUX-NARPST
'We grew up eating that.' (*lit*. 'That one made us big.'). (2J1)

5.121 *panaru=pala kakarra=pala kurrka-yi-na*
MED=3DU.S east=3DU.S rise-AUX-PST
'They got up from there in the east.' (Nya44)

Tsunoda (1981:62) observes a similar vowel alternation in Jaru demonstratives, where 'the forms ending in /a/ predominantly refer to places, while those ending in /u/ refer to (animate or inanimate) objects.' However, in Mangarla, the final vowel variation may be explained, in most instances, by the application of a morphophonemic rule operating on the comitative inflected 'long' forms (§5.3.4.2). This rule, which also operates when the ergative and locative markers attach to the plural marker (§2.3.6), reduces the two inflectional markers into a portmanteau morpheme whereby: $rtV_x + CV_y \rightarrow rV_y$.

So, while demonstratives in (5.118-121) appear to be bare stems, their final vowels reflect reduced case-markers produced by this rule. Forms with a locative interpretation end in /a/ (*panartu-ja* [MED-LOC] > *panara*), while those having an ablative interpretation or functioning as the subject of a transitive verb end in /u/ (*panartu-ju* [MED-ERG] > *panaru*, *panartu-ngu* [MED-ABL] > *panaru*). Compare the demonstratives with overt case-marking with those above: the locatives in (5.111-112) with (5.118-119), the ergative in (5.115) with (5.120) and the ablative in (5.87) with (5.121). This rule also explains the comitative forms in (5.116-117) (*i.e. panartu-yartu(ju)* [MED-COM(ERG)] > *panarartu(ju)*.

Most of the final vowel variation in '-ra' forms are either ambiguous or can be accounted for in this way, and are deemed to have implicit case, indicated by a conflated gloss (*e.g. panaru* [MED.ERG]/[MED.ABL]), which is used generally throughout this work (omitted from (5.118-121) for the present discussion).

The common use of overt case markers on '-ra' forms as in (5.111-115), could be considered inconsistent with this hypothesis, unless a more recent innovation of case-

remarking has occurred. However, Harris (2017:163) notes that multiple exponence from 'extension' can occur when 'an allomorph that is less regular or less productive is reinforced (or supported) by its more regular or productive counterpart'.

However, this explanation remains problematic in some ways. No explanation can be offered for the inconsistent application of the syllable deletion rule involved. Its application with the plural plus locative/ergative suffixes is universal, but the comitative appears to trigger it only on spatial demonstratives and the interrogative/indefinite *nganartu* (see Table 5.5). For example, neither the ergative in instrumental function (*-artu-ju* - §4.3.2.2) nor the ablative is affected when added to the comitative on stems from other nominal subclasses (*e.g. kaninyjartungu* [bottom.COM.ABL] 'from down below' (not **kaninyjarungu*) and *ngujartungu* 'from you know where', never **ngujarungu*).

Sometimes, when local or ergative interpretations do not seem applicable, '-ra' forms are interpreted as Ø-marked absolutives, which lack the required phonological conditioning.

5.122 *panara kurna-narrinya=ngarni, ngapa nganarni-ju, ngapa panara*
MED.?ABS ingest-NARPST=1PL.EX.S water we.all.EX-ERG water MED.?ABS
'We drank that water.' (1J67)

Furthermore, as in Jaru, tokens occasionally occur where the final vowel does not correspond to that of the expected case marker. A more detailed morphophonological study into these forms may provide further insight into their use, but this is presently beyond the scope of this work.

5.3.5 Syntactic distribution

Diessel (1999b:57) identifies four syntactic functions of demonstratives:

> *(i) they are used as independent pronouns in argument position of verbs and adpositions, (ii) they may co-occur with a noun in a noun phrase, (iii) they may function as verb modifiers, and (iv) they occur in copular and non-verbal clauses. I refer to demonstratives being used in one of these four contexts as (i) pronominal, (ii) adnominal, (iii) adverbial, and (iv) identificational demonstratives, respectively.*

Distinct functional subcategories of spatial demonstrative cannot be supported in Mangarla on the basis of distribution or form. Unlike neighbouring Nyangumarta, also of the Marrngu subgroup, which distinguishes between nominal (adnominal/pronominal) and adverbial forms (Sharp 2004:260), Mangarla fits the type exhibited by Ngiyambaa and Guugu Yimidhirr, where all demonstrative forms are independent pronominals which may co-occur with a coreferent nominal in the same clause, and which generally employ case marking to indicate location, time, or manner (Diessel 1999b:13-15). Despite initial observations where the '-ra' forms appear to be adverbial, more commonly selecting locational suffixes than other forms, the different stems are simply allomorphs of a single grammatical category distinguished only by the inflectional markers each selects. While attempts to differentiate functions can be problematic, this section illustrates how each form can be used in all four syntactic contexts identified by Diessel. The syntactic distribution of the indicational and recognitional is also discussed.

5.3.5.1 Pronominal

Each spatial demonstrative form occurs as an independent pronoun. All number inflected 'long' and 'short' forms in §5.3.4.2 are pronominal, while (5.93) and (5.125) illustrate the 'basic' and '-ra' forms respectively of the proximal in this context. The /u/-final '-ra' form in (5.125) conforms to the hypothesis that ergative case is inherent, but the medial '-ra' form in (5.115) is an overtly marked pronominal.

5.123 *kurtayi-n nga=rna nyalartu*
mix-PRES CAT=1SG.S PROX
'I stir this one.' (HTD6)

5.124 *nyaltu=rna=ngka murta marra-narri*
PROX=1SG.S=2SG.OBL nothing say-IPFV
'I'm only telling you this.' (1D58)

5.125 *kuwi=na wanti kaniny, nyalaru=na marra-n, lama wanti*
meat=3SG.S be.PRES below PROX=3SG.S say-PRES still be.IMP
'"The prey is down below," this one here says. "Stay still!"' (PSh13)

Examples in §5.3.3 illustrate both forms of the **recognitional** functioning pronominally. The 'basic' form is given in (5.89) and the 'long' form in (5.91).

The **indicational** is not found as a pronominal without additional morphology. Generally the comparative marker is added (5.126), although a few examples add the manner suffix (5.127). Appropriate case marking is added when required (5.128).

5.126 *wajarri yakarni-marta, wajarri yakarni-marta, wajarri yakarni-marta*
NEG thus-CPR NEG thus-CPR NEG thus-CPR
'(We had no bedding) nothing like this (canvas), nothing like this (blanket), nothing like this (mattress).' (1R61)

5.127 *nila-arri-nya=rna yawarta, yakarnu-karra, yawarta, jamayina*
clever-INCH-PST=1SG.S horse thus-MAN horse axe
'I learned about horses and things like that, horses, axes.' (1R80)

5.128 *kaparirri yakarni-marta-ja yura=ngarni parti-nyarrinya wurna*
slide.sideways thus-CPR-LOC swale=1PL.EX.S go-NARPST move.off
We would slide down sideways on that kind (sandhill) and go to the flat land. (1J51)

5.3.5.2 Adnominal

All Mangarla spatial forms occur adnominally, encoding the head noun as definite (*cf.* Diessel 1999b). Discontinuous NPs sometimes make it difficult to distinguish adnominal use from pronominal use. Himmelmann's (1996:216) criterion for adnominal use in Nunggubuyu has been adopted here; *i.e.* a demonstrative occurs with a coreferential noun within the same pause unit. The locative-marked distal in (5.129) meets this criterion and functions adnominally in a discontinuous NP.

5.129 *wakaj-kuyarra mininy yalara-ja mil-ka-ngku=rtiny*
complete-every language DIST-LOC eye-AUX-FUT=EXPECT

nyuntu-kura-ja yulu-ngka
you.SG-GEN-LOC ground-LOC
'Later you will read all the words over there at your place.' (1D109alt)

Many adnominal forms, however, are expressed contiguously with the nominal they modify. Examples (5.116-117) show adnominal medial '-ra' forms inflected with the comitative, while all forms of the proximal, except the 'basic', are given in the next example where the speaker is showing where she lived as a child.

5.130 *waji-ma-na=ni=ngarniny, nyalara-ja larrkarti,*
keep-AUX-PST=3PL.S=1PL.EX.O PROX-LOC boab.tree

nyalartu larrkarti=na karri, nyaltu warimpa
PROX boab.tree=3SG.S stand.PRES PROX bauhinia.tree
'They looked after us, at this boab tree. (See) this boab standing here, and this bauhinia.' (1M87-88)

Example (5.94) shows the 'basic' distal form, unmarked, modifying the head of an intransitive subject NP and (5.131) shows the same stem in a locative adjunct. Many other examples of adnominal spatial demonstratives can be found in the discussion of determiners in §9.3.4.1.

5.131 *wanyjirra=wun nga=ni ma-n yala-ngka yulu*
other=WELL CAT=3PL.S get-PRES DIST-LOC ground
'They get ones that are different in that distant country.' (PSh113)

The 'basic' form of the **recognitional** acts most commonly as an adnominal, typically following the element the speaker wishes the hearer to remember.

5.132 *purturr nga=pala kapa-na nganiji-ja,*
middle CAT=3DU.S sit-PST whatsaname-LOC

Kiriwirri, marrawarn nguja
placename claypan REC
'They made a halfway camp at whatsaname, at Kiriwirri, the waterhole I just told you about.' (Nya25)

The 'long' form also sometimes occurs adnominally.

5.133 *ngujartu marlpurlu nga=rna pirti-ma-narri*
REC baby.carrier CAT=1SG.S create-AUX-IPFV
'Remember the coolimon for carrying babies I'm carving.' (HTS49)

The **indicational** also occurs adnominally, but always inflected. As with pronominal use, this is most commonly with the comparative suffix *-marta*.

5.134 *nyaltu purrku nga=na=ja marra-na nyaltu panjurn*
PROX old.man CAT=3SG.S=1SG.OBL say-PST PROX wood

nga=na=ja marra-na kati-pu-ngu-pirri yakarni-marta panjurn
CAT=3SG.S=1SG.OBL say-PST cut-AUX-INF-PURP thus-CPR wood
'This old man told me to cut down this tree, this kind of tree.' (HTS97)

Indicationals with both comparative suffix (5.86) and manner suffix (5.85) take further marking in agreement (locative) with the head noun.

5.3.5.3 Adverbial

Demonstratives used adverbially to refer to the location, time or manner of an action are pronominal forms, generally inflected with spatial cases or the manner suffix. As only 'basic' and '-ra' forms are selected for locative and ablative cases, these stems predominate statistically in adverbial contexts, while 'long' forms rarely occur, and always without inflection (5.139). The locative-inflected distal 'basic' form specifies the location of the event in (5.135).

5.135 *yala-ngka witi-ka-rra=wun*
DIST-LOC play-AUX-IMP=WELL
'If you want to play, go over there!' (G155)

Most forms with a temporal sense are derived from proximal and medial stems using the ablative or source suffixes. These act as discourse connectives with a similar sense as the English adverbs 'now/then', 'after this/that' or 'hence/thence' (§5.3.6.2). While the ablative selects '-ra' forms, the source suffix is found on either '-ra' or 'short' forms. In (5.136) the proximal indicates current point of time within a narrative, while the adnominal medial *panurungu* refers to location.

5.136 *nyalaru-ngu=ni-ya kurrkayi-n panaru-ngu ngurra-ngu*
PROX-ABL=3PL.S-EP rise-PRES MED-ABL camp-ABL
'Now, they rise up from that camp.' (PSh140)

The allative (5.107) and manner suffixes (5.137) are added to the 'short' forms only. Adverbials produced by the latter are synonymous with the indicational, 'thus'.

5.137 *wipirti-arti=na ka-nga kampi-yangka pantu-karra*
small-PL=3SG.S take-PRES egg-SRC MED-MAN
'It takes the little ones from the eggs like that.' (PSan63)

In §5.3.4.3, I proposed that in many '-ra' forms, case marking is incorporated and reflected in the final vowel. That section provides examples of several '-ra' forms functioning adverbially, both with and without an overt spatial case marker. However, other forms also function adverbially without inflection: (5.138) gives the proximal in 'basic' form and (5.139) both the 'long' and 'short' forms.

5.138 *nyala=rna ngulartu wanti*
PROX=1SG.S finish be.PRES
'I stop here.' (2J75)

5.139 *nyaltu=pala pungka~pungka-nya, nyalartu*
PROX=3DU.S fall~RDP-PST PROX
'This is where the two ended up, here.' (MC37)

It can be very difficult to separate adverbial from other uses of the spatial demonstratives since the notions of entities, activities, and places are inherently linked to their relative location and spatial demonstratives can be ambiguous. The discontinuous distal in (5.129) might be interpreted as an independent NP functioning adverbially rather than as a discontinuous adnominal modifier. The absence of number marking in (5.139-141) prevents the demonstratives from being interpreted as pronominal subjects. However the presence of a second or even third demonstrative in a single utterance, also creates difficulty for interpretation especially if these are uninflected (5.139-142), and/or there is no verb (5.141). The use of forms with different spatial reference can be interpreted as differentiating entities or contrasting locations (5.140) while those with the same spatial reference, appear to differentiate between demonstrative functions (5.141), or draw attention to more than one semantic sense, such as entity and location (5.142). At other times, there is no apparent semantic contrast and they are perhaps used for clarification or emphasis. The 'long' proximal in (5.139) is interpreted as a reiteration of the reference to location, with variation of the form for stylistic reasons. Context is crucial for interpretation in many cases and a more detailed study of intonational clues is required to

determine pragmatic uses such as self-correction and what Diessel (1999a:11) refers to as 'sentential demonstratives'.

5.140 *panara nyalartu turrpu-yarti, turrpu-yarti=ngarni ya-narrinya*
MED PROX cave-PL cave-PL=1PL.EX.S go-NARPST
'There are caves there (?like these here); we went into cave country.' (1J161)

5.141 *panarangkaju panara=pala pantu-waliny*
after.that MED=3DU.S MED-SEMB
'After that, they two (were just) there like that.' (Nya43)

5.142 *wajarri=ni ya-ntama kakarra, nyaltu nyala wanti murtika*
NEG=3PL.S go-PST.IRR east PROX PROX be.PRES car(K)
'They can't have gone; this car's still here.' (A55)

The **recognitional** *nguju* is rarely used adverbially, more often prompting the recall of entities or places, but the second time use of the 'basic' form in (5.143), prompts the hearer to remember a previous event. Similarly, it can have scope over an entire utterance as in (5.144).

5.143 *nyaltu ngapa nguju purturr nga=ni-ya marra-narri nguju*
PROX water REC middle CAT=3PL.S-EP say-IPFV REC
'This is the water, you know, where they camped, that they were talking about before.' (93sen76)

5.144 *nguju=la ya-na nyarra-kurna*
REC=1DU.IN.S go-PST away-wards
'Remember, we went that way.' (H42)

The **indicational**, by contrast, is used mostly in adverbial contexts, to focus on an aspect of an activity or to exemplify the entire event. The 'basic' form is shown in (5.79) and the 'long' form in (5.80). The manner suffix, while perhaps superfluous, is commonly added to the indicational in adverbial contexts.

5.145 *yakarnu-karra=ngarniya wakurr-ma-narrinya*
thus-MAN=1PL.EX.S dig-AUX-NARPST
'We used to dig like so.' (2R9)

While the comparative suffix *-marta*, is used on the indicational primarily to denote entities and characterisics, its use sometimes overlaps with *-karra* 'MAN' in adverbial function.

5.146 *nga=na kawu-nku "kunyarr kunyarr" yakarni-marta*
CAT=3SG.S call-FUT dog dog thus-CPR
'He will call out, "Dog, dog," like that.' (HTG131)

5.3.5.4 Identificational

In identificational contexts, a demonstrative is used in a verbless clause to present entities, or identify characteristics. 'Long' (5.147) or 'short' forms (5.148) are generally chosen as identifiers and may occur before or after the element they identify. As in other pronominal contexts, they can inflect for number (5.149).

5.147 *wanyju Mangarla panartu*
one Mangarla MED
'That is all one Mangarla.' (2D48)

5.148 *warlu nyaltu*
fire PROX
'This is a fire.' (PSh117)

5.149 *nyalartarti pirra-karra*
PROX.PL bush-MAN
'These ones are bush types.' (PSh168)

Demonstratives used to identify often maintain a clear locational sense, such as when used clause initially to describe pictures (5.150) or sand drawings (5.151). In (5.152) the speaker is quoting a character in a narrative who is being drowned by water serpents. However, the locative can be added when location is the primary sense (5.153).

5.150 *nyaltu=ni wirli~wirli yarrka-n*
PROX=3PL.S fishing.line~RDP throw-PRES
'Here in this one, they cast the fishing line.' (PSh81)

5.151 *pirntirri yala yakarnu-karra wanyanu nyalartu*
plain DIST thus-MAN sandhill PROX
'That is a plain way out there, like this, and this is a sandhill here.' (MC44)

5.152 *ngapa=na nyaltu*
water=3SG.S PROX
'Here comes water!/ This is water!' (MC65)

5.153 *warnku=na panpara-ja*
stone=3SG.S MED-LOC
'There are hills there.' (FKNgi8)

Recognitional and indicational demonstratives also occur in verbless sentences, but do not have an identificational function.

5.3.6 Function

Himmelmann (1996) outlines four potentially universal demonstrative uses in narrative discourse. The first of these is situational, or exophoric use, where the referent is a physical entity extant in the utterance situation. Compared to this, endophoric uses index an entity not physically present and provide textual cohesion. In Mangarla, the recognitional is not used exophorically and the distal is not used endophorically, but all other demonstratives are used in both ways and can refer back to entities, propositions or events previously identified in the discourse. This section examines both uses, beginning with the exophoric, or situational, use and moving on to endophoric uses of which Himmelmann (1996) and Diessel (1999b) describe three: anaphoric or tracking, discourse deictic, and recognitional. A review of earlier sections in this chapter, particularly §5.3.5.1 and §5.3.5.2, will reveal many more examples of each category.

5.3.6.1 Situational

The referent of a spatial demonstrative in situational use may be an entity as in (5.148-149), or a place (5.153). Himmelmann (1996:221) also includes self-reference to a linguistic unit or act as situational use. The phrase *nyaltu mininy* 'this story' is a common way to introduce a story (5.154). Linguistic units may include spoken (5.147, 5.154) or sign language, as in (5.155) where the speaker is demonstrating signals used during hunts.

5.154 *nyaltu mininy nga=rna=ngka ngurrja-n-nga janyja*
PROX language CAT=1SG.S=2SG.OBL talk.about-PRES-EP today
'This is the story I am telling you today.' (1D36)

5.155 *nyalartu nyalartu an nyalartu*
PROX PROX and(K) PROX
'this (snake sign), this (possum sign), and this (cat sign)' (2R21)

Sometimes, the referent is present not in the utterance situation, but in the narrated situation. Examples (5.152) and (5.93) are both examples of direct speech where the speaker refers to an entity within a narrative setting. In the latter, repeated below as (5.156), the speaker relives her own reaction to discovering her newborn sister 60 odd years before.

5.156 *warawu kampaja jarni-ngu=n ma-na nyala*
hey mother where-ABL=2SG.S get-PST PROX
'Hey mother, where did you get this from?' (2J63)

Himmelmann (1996:224) proposes that what differentiates situational from other demonstrative uses is the presence of 'an essentially spatial notion of relative distance to some deictic centre'. In Mangarla, this is typically the speaker, and as (5.156) shows, it is not limited to the concrete environment of the utterance situation. Rather, discourse participants interactively establish the situation being referred to, and the nature of distance contrasts encoded in spatial demonstratives is not constant. The proximal in (5.157) refers to a relatively wide geographical area around the speaker's current location while in (5.158), the referent is located a few hundred meters away, and others are within half a metre, such as (5.148-150), where the speaker refers to images directly in front of her. However, in each instance, the referent is pragmatically prominent.

5.157 *nyarlu-yarri-nya=ni ngajiramarta nyalara-ja Martuwarra-ja*
dead-INCH-PST=3PL.S fathers&sons.PLKIN PROX-LOC Fitzroy.River-LOC
'All those fathers and their sons died here in river country. (1R26)

5.158 *nyalartu larrkarti=na karri, nyaltu warimpa*
PROX boab.tree=3SG.S stand.PRES PROX bauhinia.tree
'(See) this boab standing here, and this bauhinia.' (1M87-88)

Furthermore, either proximal or distal can be used together with the medial for the same referent and often within the same utterance, with a contrastive function. Both proximal and medial demonstratives are used when describing illustrations on the same page, and despite the most common use of the distal to index remote referents, usually not within view, it can be used in similar contexts to the medial. In (5.159), the flour and its location are the same distance from the speaker who refers to each by a different demonstrative.

5.159 *yala=lpiny nga=ja=n yu-ngku pantu pulawa*
DIST-first CAT=1SG.OBL=2SG.S give-FUT MED flour(E)
'You can give me that flour over there first.' (HTD54)

In (5.160a-c) the referent, Luluigui Station, remains fixed, but the speaker changes from the medial to the proximal as his focus shifts from the distant past of the narrative, to the present and his current location relatively close (around 20 km) to the place referred to.

5.160 *a) jipi-yarri-nya=rna panpara-ja Lungkayi-ja*
man-INCH-PST=1SG.S MED-LOC placename-LOC
'I became a man there at Luluigui.'

b) nyaltu Lungkayi
PROX placename
'Here, Luluigui.'

c) nyalara-ja Lungkayi
PROX-LOC placename
'At Luluigui, just here.' (1R73)

In (5.161), all three points on the distance scale are used. Firstly, the medial is used, not situationally but anaphorically (§5.3.6.3), but in the extraposed NPs given for clarification, the speaker, using her fingers to differentiate between family members and their birth order, uses proximal and distal demonstratives as a contrastive device. While the referents are not actually present, the speaker is presenting them as though they are, and the deictic contrast is made in relation to some notion of distance between the actual entities, spatial or perhaps temporal, and not the fingers which represent them. The use of gesture is proposed by Himmelmann (1996:224) as a second distinct feature of the situational use of demonstratives.

5.161 *paniyarra=pala witi-karra wani-nyarrinya pantarra kartu-yarra,*
they2=3DU.S play-MAN be-NARPST MED.DU child-DU

marrkartu-yarra ngijakura-arra, nyaltu wipirti-marta, yala
younger.sibling-DU I.GEN-DU PROX small-CPR DIST

purlka-marta
big-CPR
'Those two children stayed behind playing, my two younger siblings, this one the smaller and that one a bit bigger.' (1J146)

The most frequent function for the indicational is situational. It calls on the hearer to physically perceive an aspect of the referent, which may be absent but the likeness of which is within the immediate environment (5.126, 5.134). It may also call attention to a gesture, or demonstration of manner (5.80, 5.84) or quality, as in (5.162), where the speaker raises his hand to indicate the height of a young child.

5.162 *ngayu kajana wipirti yakarni-marta*
I boy small thus-CPR
'I was just a little boy, only about this high.' (1R8)

The indicational also occurs as a quotative, marking direct speech (5.146, 5.163). This pure text deixis is an exophoric use whereby the speech act is treated as an entity within the discourse (*cf*. Diessel 1999b:101). In Mangarla, the indicational always occurs after the quote and is marked by the comparative.

5.163 *walu Mangarla, mil, milya, nilapa, mouth rirra,*
forehead Mangarla eye nose ear mouth

more easy Mangarla call him *rirra tangku, yakarni-marta tangku.*
mouth chin thus-CPR chin
'"*Walu*" is Mangarla, "*mil, milya, nilapa*"; mouth is "*rirra*". The Mangarla words are easier, "*rirra, tangku.*" We say it like that, "*tangku*".' (2R38)

5.3.6.2 Discourse deixis

Discourse deixis is one of three endophoric uses of demonstratives, used to index events and propositions, including segments of the discourse. 'Long' and 'short' forms of the proximal and medial are most commonly employed in this function, as exemplified by the two frequent expressions which end an episode or stage in a narrative, meaning "that's that; that's all there is to it": *nyaltu jutuk* or *kakurtu panartu.* In (5.164b), the speaker uses the 'long' medial form to refer back to two words from the two dialects of the language, *ngulartu* and *kakurtu,* given in the previous clause.

5.164 *a) ngulartu, kakurtu, kujarra mininy*
finish finish two words
'"That's all", "that's all", two words.' (2D47)

b) wanyju Mangarla panartu
one Mangarla MED
'That's all one Mangarla.' (2D48)

In (5.165) the 'short' medial form refers to events described earlier, as does the indicational in (5.166).

5.165 *pantu-karra pantu-karra wangu, pani-kura wangu*
MED-MAN MED-MAN wife s/he-GEN wife

mil-ka-ngarrinya nga=na
eye-AUX-NARPST CAT=3PL.S
'The wife, his wife, she saw all that going on.' (FKNgi72)

5.166 *kamurra wantayi kuli-yangka nguju=lparri*
uncertain be.NPIRR anger-SRC REC=ASSERT

wayitpal pu-ngarri nga=ni=iny=kulu yakarntu-karra
whitefella(E) hit-IPFV CAT=3PL.S=3PL.O=ANTIC thus-MAN
'If they stop here they might go around killing whitefellas in anger, you know, like before.' (Ngi46)

Five discourse connectives are formed from proximal and medial '-ra' and 'short' forms and the source or ablative suffixes. Used with a temporal sense to connect sequential events, they typically occur in clause-initial position. They are lexicalised forms which take no further inflection, apart from an optional (shown in brackets) discourse marker, *-ju*, on those derived with the source suffix, *-angka*.[20]

pantangka(ju) [MED.SRC.?TOP] 'after that', 'then'
panara(nga)ngka(ju) [MED.(EP.)SRC.?TOP] 'after that', 'then'
nyaltangka(ju) [PROX.SRC.?TOP] 'after this', 'now'
panarungu [MED.ABL] 'from there', 'after that'
nyalarungu [PROX.ABL] 'from here', 'now'

The most common discourse connective employs the 'short' medial stem (5.167). That based on the 'short' proximal stem only occurs once. It was uttered during an elicitation session using pictorial stimuli, and conveys a sense of immediacy (5.168).

5.167 *pantangkaju wani-nya=pala warrkam-karra kampaja-pa wulu-pa*
after.that be-PST=3DU.S work-MAN mother-and father-and
'After that, mother and father stayed working.' (1P3)

5.168 *nyaltangkaju nyaltu=na mil-ka-ngarrinya*
after.this PROX=3SG.S eye-AUX-NARPST
'So now, she sees this one.' (PSh9)

Two speakers use the medial '-ra' form as a base (5.169), one of whom sporadically inserts an epenthetic *nga* between the stem and suffix (§2.3.5). The other speaker also

[20] Both McKelson (1974) and I record these forms with and without *-ju*. While it is formally identical to the ergative marker, it cannot be synchronically analysed as such even though case agreement occurs in the same context in neighbouring languages. Many languages in the region derive sentence relators in the same way. In Wangkajunga, these agree in case with the ergative subject of the verb in the same clause (Jones 2011:296). However, in Mangarla, *-ju* is used in clauses with intransitive verbs (5.167, 5.169) and is occasionally omitted when the verb is transitive. The lack of any consistent relation to transitivity leads to the conclusion that, even though, historically, it may have marked agreement, synchronically its function is discourse related. This is in line with comparable constructions in some Ngumpin-Yapa languages which add a topic/focus marker (*e.g.* Warlpiri, Bilinarra). The Warlpiri form *ngula-jangka(-ju)* [that-SRC(-TOP)] seems closely related to the Mangarla. In Warlpiri the euphonic *-ju* has a number of functions and is optionally placed on this form as a topic marker (Simpson 1991:121). In Mangarla, it only occurs on these sentence connectors and the interrogative *ngantangka(ju)* 'why/what from' (§5.2.1) where it is less common.

uses the '-ra' stem of the *panpartupanpartu* dialect on one occasion, giving *panparangkaju*.

5.169 *panarangkaju kakarra=pala parti-nya*
after.that east=3DU.S go-PST
'Then, they two went east.' (Nya55)

Discourse particles formed with the ablative occur less frequently (5.170), possibly because they continue to also function as locational deictics. Example (5.171) illustrates the spatial/temporal ambiguity this can lead to.

5.170 *kapat-tu-narrinya=ngarni-ya=la tarnku kakurtu,*
jump-AUX-NARPST=1PL.EX.S-EP=3SG.OBL grip finish

panarungu muku-narrinya=ngarni-ya=rnangka
MED.ABL club.AUX-NARPST=1PL.EX.S-EP=RROBL
'We would stomp on it; hold it tight. Finish. Then we'd kill it for ourselves.' (2J13-14)

5.171 *panaru-ngu wurna, wurna=na kurrkayi-nku*
MED-ABL move.off move.off=3SG.S rise-FUT
'**After that** he will walk, will get up and go.'/ (HTG170)
'He will walk **from there**, get up and go.'

5.3.6.3 Tracking participants

As the use of free personal pronouns is uncommon in Mangarla, spatial demonstratives are used (in contrast to zero anaphora) to track participants within discourse. While the recognitional, indicational and distal are not used anaphorically, all forms of the proximal and medial have been recorded as referring anaphorically to established entities and places: the 'long' medial is used in (5.172) to refer to a sibling who the speaker realises was absent despite having earlier been counted in the family group; the 'short' proximal in (5.173b) refers back to the relatives mentioned in the previous clause; and the '-ra' form is shown in (5.174-175), the latter also using the 'basic' form of the proximal.

5.172 *wajarri nga=na panartu wanti-ma*
NEG CAT=3SG.S MED be-PSTIRR
'That one wasn't with us!' (1J166)

5.173 *a) ngayu-ngku=rna=palangka ngijakura kaka-pa*
I-ERG=1SG.S=3DU.OBL I.GEN uncle-and

ngunyarri ngaja-nyarrinya.
aunt cry-NARPST
'I was crying for my uncle and aunt.' (1M56)

b) pantarra=rna=palangka ngaja-nyarrinya
MED.DU=1SG.S=3DU.OBL cry-NARPST
'I was crying for those two.' (1M57alt)

Often, the referent of a demonstrative is specified in an afterthought (§9.6) to ensure correct interpretation (5.174d). In the excerpt below, the speaker names a place and later refers to it with the medial inflected with locative (5.174c). The ablative-marked medial in (5.174d) refers anaphorically to the origin of this journey, also named earlier.

5.174 *a) pantangka=ngarni ya-na nganiji-karti, Niyirramal-karti,*
after.that=1PL.EX.S go-PST whatsaname-ALL placename-ALL

Kurnturlungarn
placename
'After that we went to whatsaname, towards Nerrima, Kurnturlungarn.'

b) ngapa=na wurta-n
water=3SG.S flow-PRES
'Spring water flows (there).'

c) wani-nya panara-ja
be-PST MED-LOC
'We stayed there.'

d) kakurtu wurna=ngarni-ya kurrkayi-na panaru, nganiji-karti
finish move.off=1PL.EX.S-EP rise-PST MED.ABL whatsaname-ALL

Niyirramal-karti
placename-ALL
'We travelled from that place to whatsaname, to Nerrima.' (1P26-29)

Topicality and participant activation state affect the choice of demonstrative, with the medial generally referring to topical participants or where the referent is within recent memory and easily recalled. The proximal is used in contrast to this, to signal a shift of attention, to reintroduce thematically prominent entities or to resolve ambiguity by distinguishing between participants. In (5.175) the speaker tells of two pairs of women who travel across the countryside. Both pairs are introduced at the beginning of the story, and after they take different routes, the pair referred to by the medial in (5.175a) have been the focus of the events to this point. The second pair is re-introduced in (5.175b) with the proximal *nyala* just before the groups meet up again. The proximal signals a reactivation of their involvement and distinguishes them from the first pair.

5.175 *a) pantarra=pala parti-nyu-ng-karra-ka-nya kila-kurti~kilakurti*
MED.DU=3DU.S go-INF-EP-MAN-AUX-PST south-along~RDP
'Those two there were going along the south side.' (Nya89)

b) nyala=pala ralinyja purta parti-nya
PROX=3DU.S north come go-PST

paniyarra Nangkala-pa Naminki
they2 skin.name-and skin.name
'These two here, Nangkala and Naminki, came and went along the north side.' (Nya90)

5.3.6.4 Recognitional

Himmelmann's third endophoric use is recognitional. Mangarla has a dedicated demonstrative for this purpose, the recognitional *nguju/ngujartu,* translated variously as 'you know' or 'remember', which encourages the hearer to recall a particular piece of information known to them (§5.3.3). Used both pronominally and adnominally, it is not used for tracking like the spatial demonstratives, which can be used in a similar way for active or semi-active participants. The referent of the recognitional may or may not have been mentioned in the preceding discourse, but is shared information and thus does not need to be made explicit (although clues are often provided in adnominal use (5.176)).

5.176 *karrkin nguju=na parti*
skin REC=3SG.S go.PRES
'That skin (lizard), remember him, goes (hunting).' (MC10)

While it may be used to re-introduce participants or events in narratives, as in the previous example, *nguju* and its allomorphs are often used for first time mentions. The referent in (5.177) has never been mentioned but is understood from a mutual social familiarity.

5.177 *ngujartu=la yaji-pu-ngku*
REC=1DU.IN.S wait-AUX-FUT
'We will wait for you know who.' (H46)

While not an avoidance term, it is sometimes used in place of a name (5.177) or with a non-specific reference, translatable as 'somebody/thing', 'everybody/thing' (5.178) or the ubiquitous 'they' in reference to definite events/entities in common knowledge.

5.178 *manjirr-pa ngujartu-pa wakaj-kuyarra nga=ni-ya yarrka-na*
loaf-and REC-and complete-every CAT=3PL.S-EP throw-PST
'They threw everything (to us), you know, flour, all that stuff.' (FK47)

It can also be used to serve as a reminder to the hearer about events as well as entities.

5.179 *nguju=ni-ya kuwi kanti-na*
REC=3PL.S-EP meat hit-PST
'Remember, they killed meat (earlier).' (PSh54)

5.3.7 Grammaticisation and the medial

Himmelmann (1996:215-216) notes that adnominal demonstrative use is generally twice as frequent as pronominal use for all languages in his data set, but for the one Australian language, Nunggubuyu, where the frequency distribution is roughly equal. Pronominal use in Mangarla too, marginally outweighs adnominal use for most demonstrative forms. Adnominal use may even be over represented with many tokens in fact being in apposition to nominals rather than modifying them. The glaring exception to this is with the 'short' medial form, *pantu,* where adnominal use is almost double its use as a pronoun.

This exceptional ratio of adnominal:pronominal use, along with other features, indicates that the medial may be undergoing a process of grammaticisation in several directions. Firstly, as a member of a multi-spatial system, the medial is the 'weak' or semantically general form, while proximal and distal are used contrastively. Its increased frequency of use overall (60% of all spatial demonstrative use), and in adnominal contexts particularly, may be explained by its heavy use as an anaphor for tracking a broad range of referents, not just the topical. This is a common pathway towards becoming a definite article (Diessel 1999b:129).

Secondly, the medial is used in a greater number of fixed discourse strategies, such as *kakurtu panartu* 'that's that' to end a stage of the discourse, and as a base for discourse connectives which link stages of narrative (§5.3.6.2). These specialised linkers occur in a fixed clausal position, are not subject to pronominal clitic placement rules and take no further inflection. While there remains some formal variation and the proximal still occurs infrequently as the base, the medial form *pantangkaju* has become entrenched. These features of anaphoric and discourse uses are mid-way on the grammaticisation 'cline' and exhibit both of the functional changes expected (Diessel 1999b:129).

Finally, the root of the medial forms, *pan-*, may be the historical source of the third person singular free personal pronoun, *pani,* a common grammaticisation pathway (Diessel 1999a:18, Himmelmann 1996:213). The phonological and functional similarity of these two forms and the fact that they are distinct from functionally similar forms in neighbouring languages (§5.1) also supports this hypothesis. It is also relevant that there is a gap in the paradigm of 'basic' demonstrative forms, where the proximal and distal stems *nyala* and *yala* occur but there is no medial form, *pana*.

6 Bound pronoun complex

The bound pronoun (BP) complex is a syntactic element which registers the person, number and grammatical function of up to two participants in a clause, and indicates the presence of a third in certain contexts. In a language where nominals are frequently omitted, it assists in the identification and tracking of referents in discourse. It is one of the most important and difficult aspects of the language to master. Homophonous or near homophonous forms can be difficult to differentiate, and pragmatics plays an important role in interpreting the referents of many BPs in combination. Furthermore, the registration of third person participants varies considerably and is often at odds with the way non-third persons are treated in the same function. This will be illustrated in the relevant sections which follow.

The basic structure of the BP complex is shown in (6.1). It consists of an optional particle, the catalyst (§6.3.2), and up to two clitic pronouns registering the subject and non-subject arguments in that order. The anticipatory clitic *=kulu* (§8.7) can follow BP clitics and the emphatic *=(a)wu* can attach to a clause-final BP complex, commonly in one-word clauses. However, while this template accounts for most BP complexes, clitic order changes in certain combinations (§6.1.2.2).

6.1 *(CAT)=subject clitic(-EP)=(non-subject clitic)(-EP)(=ANTIC/EMPH clitic)*

One set of clitics is used to register both transitive (ergative) and intransitive (absolutive) subjects but a non-subject clitic is selected from one of three sets according to the argument structure of the predicate and the presence of non-selected arguments. A maximum of two clitics can occur, the subject and one non-subject clitic as shown in (6.1), although the presence of an OBL2 means that three participants are registered. The BP clitics are examined in §6.1: their forms and functions in §6.1.1 and the variations they exhibit when combined in §6.1.2. These variations result from competing morphophonological processses triggered by particular clitic combinations (§6.1.2.1) and from clitic shift which changes the basic order shown in the template (6.1) under the influence of a limited person hierarchy applied in certain combinations (§6.1.2.2).

The BP complex has semantic scope only over the clause in which it occurs and while not technically obligatory, even for animate referents in some contexts (§6.2.1), most

finite clauses contain one. Section 6.2 examines the expression of the BP complex and individual clitics within it, and the circumstances under which they are omitted or repeated. A clitic slot can be void when the referent is third person singular =*Ø* (always when registering O and optionally when registering S) or when an overt clitic is elided due to the presence of an NP (§6.2.1). Elements which can host the clitics are detailed in §6.3, and §6.4 describes the position of the BP complex within the clause. This is generally following the first element, although this can also vary.

The BP complex can take word stress particularly when attached to the catalyst but also without it in some clitic combinations (§6.4). Thus, for reasons of readability and orthographic convention in related languages, a BP complex attached to a catalyst is written as a separate word, even when unstressed, and one which is not is written as encliticised to the preceding element, even when it bears stress.

6.1 Bound pronouns

6.1.1 Form and function

BPs make the same eleven number and person distinctions as free pronouns (§5.1) but unlike free pronouns and other nominals, BPs are organised in a nominative/accusative case system.

Four different series register the person, number and grammatical function of participants in the role of Subject (§6.1.1.1), Object (§6.1.1.2), OBLique (§6.1.1.3), and the category OBLique2 (§6.1.1.4) which signals the presence of multiple oblique arguments but only registers the person/number features of the one higher on a person hierarchy. Following Swartz (1982), OBL2 clitics are analysed as a portmanteau consisting of members of the oblique series augmented by the 3SG.OBL, rather than as two individual clitics each with separate reference. Each non-subject series has a corresponding reflexive/reciprocal (RR) clitic to register arguments which are coreferential with the subject (§6.1.1.5). These express only the grammatical function of the reflexive/reciprocal argument, their person/number being indicated by the subject pronoun to which they attach.

A non-subject argument is registered according to a hierarchy whereby OBL2>OBL>O, with the more semantically peripheral, and thus least expected, participant taking precedence over others inherent in the meaning of the predicate. As many optional and

non-selected arguments are human (*e.g.* beneficiaries and possessors) and many selected objects are inanimate themes, this may potentially be seen as a hierarchy of animacy, a notion reinforced by the fact that many 3SG.OBL clitics are omitted where a first or second person oblique would not be. However, the omission of an expected clitic is always accompanied by an NP and occurs with human as well as inanimate referents (§6.2.1), and in Mangarla, highly salient inanimates are often registered as oblique accessories and locations.

BP clitics are given in Table 6.1 alongside free pronouns for comparison. While allomorphs in free variation are listed, those which result from the conditioned environment of clitic combining (§6.1.2) are not shown.

Table 6.1 Pronominals

PERSON/ NO	FREE PRONOUN	SUBJECT	OBJECT	OBLIQUE	OBLIQUE2
1 SG	*ngayu*	*=rna*	*=nya*	*=ja*	*=jala*
2 SG	*nyuntu*	*=n*	*=na* *=nga*	*=ngka*	*=ngkala*
3 SG	*pani*	*=na* *=Ø*	*=Ø*	*=la*	
1 DU.IN	*ngaliyarra*	*=la*	*=ngaliny*	*=ngalingka*	*=ngalingkala*
1 DU.EX	*ngalyarra*	*=yarra*	*=yarrany*	*=yarrangka*	*=yarrangkala*
2 DU	*nyumpala*	*=mpala*	*=mpalany*	*=mpalangka*	*=mpalangkala*
3 DU	*paniyarra*	*=pala* *=napala*	*=palany* *=napalany*	*=palangka*	*=palangkala*
1 PL.IN	*nganyjurru*	*=la*	*=nganyjurruny*	*=nganyjurrungka*	*=nyjurrungkala*
1 PL.EX	*nganarni*	*=ngarni*	*=ngarniny*	*=ngarningka*	*=ngarningkala*
2 PL	*nyurra*	*=nyurru*	*=nyurruny*	*=nyurrungka*	*=nyurrungkala*
3 PL	*paniyarti*	*=ni*	*=iny* *=Ciny*	*=inya* *=Cinya*	*=inyala*
RR			*=rna*	*=rnangka*†	*=rnangkala*†

† not used in first person singular which uses regular 1SG.O/OBL/OBL2 forms

McKelson (1978) gives a deceptively regular paradigm of all subject and object clitic combinations (excluding reflexives), as well as an almost complete oblique paradigm, but

only in certain combinations. However, as Tsunoda (n.d.) notes, this paper is 'neither complete nor consistent or accurate', and he also observes the difficulty in determining the status of forms as free or bound, the lack of grammatical context, and possible inconsistencies with the original data.

Most of the non-singular clitics in Table 6.1 are clearly derived from the free forms, often as simple abbreviations (*e.g.* 1DU.IN ***ngali****yarra*, 1DU.EX *ngal****yarra***, 2DU *nyu****mpala*****,** 1PL.EX ***ng****an****arni***) or as (almost) homophonous forms making them difficult to distinguish from free pronouns. *Nganyjurru* functions as both a free pronoun [we.all.IN.ABS] and a clitic [1PL.IN.S]; the tendency to vary the final vowel on *=nyurru/a* [2PL.S] makes it homophonous with the free pronoun *nyurra* [you.all.ABS] which also tends to alternate the final vowel (6.3); and the oblique /a/-final form, *nyurrangka*, is homophonous with the independent [you.all.LOC]. Language interference may be a factor in this, as *nyurra* occurs as both free and bound forms in Karajarri (Sharp 2004:252) and is the 2PL.S clitic in Western Desert languages including Wangkajunga (Jones 2011:136) and Warnman (Burgman 2010:33). Free pronominal NPs may replace clitics, and even host RR clitics (§6.2.1). Furthermore, unlike monosyllabic clitics, polysyllabic forms generally receive word stress, making them phonologically independent, like their counterparts in Nyangumarta (Sharp 2004:91). However, they can be differentiated from free personal pronouns syntactically: by the nominative-accusative case system and their (relatively) fixed position, both within the clause (§6.4) and the BP complex (§6.1). This can be seen in (6.2), where the first pronoun is an NP in Ø dative case, while the second is an oblique BP. Similarly, in (6.3), the first token of *nyurru/a* is an ergative-marked NP while the second occurs in the subject slot of the BP complex attached to the catalyst and bearing no overt case-marking.

6.2 *nganyjurru-Ø=Ø=nganyjurrungka yaji-pu-ngarri*
we.all.IN-DAT=3SG.S=1PL.IN.OBL wait-AUX-IPFV
'He is waiting for all of us.' (3Sen73)

6.3 *nyurru ŋgu ŋa nyurru dya ŋiŋara gana ŋidya gura dya*
nyurra-ngku nga=nyurru=ja ningarra-ka-na ngijakura-ja
you.all-ERG CAT=2PL.S=1SG.OBL truth-AUX-PST I.GEN-LOC

minin dya
mininy-ja
language-LOC
'Do you believe my word?' (McK:157)

The phonological forms of the third person plural clitics are unlike any found in neighbouring languages and appear to be unique to Mangarla. In contrast to clitics for other persons, the third person plural non-subject clitics display great variation in both form and function with some speakers adding an intial consonant. Their morphophonology is more complex when added to subject clitics (§6.1.2.1) leading to considerable variation in this context. For example, 3PL non-subject clitics from different functional categories are used to register the same argument on different occasions or by different speakers, and 3PL non-subject arguments of certain verbs are registered by a different series to that used for other persons. This has some characteristics of a semantic hierarchy and may indicate a synchronic shift in the paradigm (§6.1.1.3-§6.1.1.4).

Many clitics contain transparent case-marking and in some, separate person and number morphemes can be identified. The structure of such forms accord to the template in (6.4).

6.4 *PERSON-NUMBER-CASE*

In non-singular (and RROBL) clitics, accusative and oblique cases are identifiably marked at the end of the clitic. The oblique marker is homophonous with an allomorph of the locative case (§4.3.4) which marks some nominals in oblique function (§11.3). Hence:

nominative	*-Ø*	*e.g.*	*=ngarni*	*=pala*	*=nyurru*
accusative	*-ny*	*e.g.*	*=ngarniny*	*=palany*	*=nyurruny*
oblique	*-ngka*	*e.g.*	*=ngarningka*	*=palangka*	*=nyurrungka*

Second and third persons dual clearly show distinct person and number markers.

person	**2**	**3**
	=n	*=na/Ø*

number	**singular**	**dual**
	=Ø	*=pala*

The use of a plural marker is less transparent. While none is evident in the regular 2PL clitic, the morpheme *=yi* can be distinguished in certain contexts. It is found as a separate morpheme in some combinations involving third person (§6.1.2.2) and in imperatives, where it may mark a plural subject (§6.1.1.1).

6.1.1.1 Subject

Subject clitics generally occupy the first slot of the BP complex. However, clitic shift rules (§6.1.2.2) cause some to follow a first or second person singular non-subject clitic.

Table 6.2 Subject clitics

	Singular	**Dual**	**Plural**
1IN		*=la*	*=la*
1EX	*=rna*	*=yarra*	*=ngarni*
2	*=n*	*=mpala* *=npala*	*=nyurru* *=nyurra*
IMPERATIVE	*Ø*	*=pala*	*=yi*
3	*Ø* *=na*	*=pala* *=napala*	*=ni*

Subject clitics register the subjects of verbs of all transitivity values: intransitive (6.5, 6.8), transitive (6.6) and semitransitive (6.7). If expressed by NPs (underlined below), including pronominals, intransitive subjects are in the unmarked absolutive while the latter types are marked by ergative case.

6.5 *pantu*=***na*** *purta-nya*
MED=**3SG.S** come-PST
'That one came.' (1R123)

6.6 *wulu-ngku*=***na***=*nya* *ka-nya* *kila-rni-marrangu*
father-ERG=**3SG.S**=1SG.O carry-PST south-toward-DIRABL
'My father brought me here from the south side.' (1R114)

6.7 *ngaliyarra-ju*=***la***=*palangka* *yaji-pu-ngarri* *kuwi-purru*
you&I-ERG=**1DU.IN.S**=3DU.OBL wait-AUX-IPFV meat-PURP
'You and I are waiting for them for meat.' (2sen67)

There is syncretism of first person inclusive dual (6.7) and plural (6.8) S clitics.

6.8 *nganyjurru*=***la*** *ya-na*
we.all.IN=**1PL.IN.S** go-PST
'We all went.' (2sen178)

Second person dual allomorphs arise from an underlying form which clearly embodies person (=*n*) and dual number (=*pala*). Most commonly, the nasal is assimilated to the place of articulation of the following stop, n > m / _ p. McKelson (1974:28) also records both forms and states that 'it seems that *mbala* is authentic Mangarla'. Unlike 3DU.S, the second person subject and number are never separated except in imperatives where the person marker is dropped (see below).

Both overt =*na* and non-overt =*Ø* forms of 3SG.S occur in sentences of all types, with transitive and intransitive verbs, with all TAM categories and with non-verbal predicates. However, the choice of form appears to be influenced at times by the clitic which follows it. Attested combinations are shown in Table 6.3 with the 3SG.S clitic in first slot.

The overt form =*na* for 3SG.S mostly occurs with singular non-subject clitics and is always used with first person singular non-subject clitics and second and third person oblique clitics. Zero is preferred with other clitics, but sometimes alternates with =*na*. Both forms can refer to animate or inanimate entities. In (6.6) the overt =*na* is used, while in (6.9), =*Ø* is used with the same verb, albeit with a slightly different meaning. In (6.10) the speaker repeats the BP complex (such repetitions are examined in §6.2.2), using both forms of the 3SG.S clitic with the reflexive oblique. The presence or otherwise of a subject NP, or the catalyst, does not affect the choice.

Forms marked with an asterisk in Table 6.3 are ambiguous due to homophony of the two 2SG.O allomorphs, one with 3SG.S =*na*, and the other with the catalyst *nga* (§6.1.1.2).

Table 6.3 Clitic combinations with third person singular subject

	object	**oblique**
1SG	*=na=nya*	*=na=ja*
2SG	*=Ø=na/=nga=na** *=na=na*	*=na=ngka*
3SG	*=na=Ø* *=na=rna (RR)*	*=na=la* *=na=rnangka (RROBL)*
1DU.IN	*=Ø=ngaliny*	*=Ø=ngalingka*
1DU.EX	*=Ø=yarrany*	*=Ø=yarrangka*
2DU	*=Ø=mpalany* *=na=mpalany*	*=Ø=mpalangka*
3DU	*=Ø=palany*	*=Ø=palangka*
1PL.IN	*=Ø=(nga)nyjurruny* *=na=nganyjurruny*	*=Ø=nganyjurrungka*
1PL.EX	*=Ø=ngarniny* *=na=ngarniny*	*=Ø=ngarningka* *=na=ngarningka*
2PL	*=Ø=nyurruny*	*=Ø=nyurrungka*
3PL	*=Ø=iny* *=na=iny*	*=Ø=inya* *=na=inya*

6.9 *kujarra nga=**Ø**=palany ka-nya*
two CAT=**3SG.S**=3DU.O carry-PST
'She had twins.' (2sen18)

6.10 *pani-ngku nga=**na**=rnangka jani-ma-na=**Ø**=rnangka ngurtin-tu*
s/he-ERG CAT=**3SG.S**=RROBL cook-AUX-PST=**3SG.S**=RROBL alone-ERG
'He cooked for himself on his own.' (G105)

Alternative forms of 3DU.S, *=napala* and *=pala*, contain either the *=na* or *=Ø* person markers followed by the dual number marker *=pala*. As with 3SG.S, the choice is influenced to some extent by the person and number of the non-subject clitic in the complex. The longer form is generally used with first and second person singular non-subject clitics which are infixed between person and number markers (§6.1.2.2). While the two forms appear to be interchangeable with plural non-subject clitics (6.11-12), *=napala* occurs infrequently, and never splits person from number marking in this context. The longer form is never used with the RR clitics (§6.1.1.5).

6.11 *yaji-pu-nga=**napala**=ngarningka nganarni*
wait-AUX-PRES=**3DU.S**=1PL.EX.OBL we.all.EX
'Those two are waiting for all of us (not you).' (3Sen27)

6.12 *mayi nga=**pala**=ngarningka ma-na*
veg.food CAT=**3DU.S**=1PL.EX.OBL get-PST
'They two got food for us.' (2J94)

The 3PL.S form used here is *=ni*. McKelson (1974, 1978) records it as *=niyi,* 'like knee in English' (McKelson 1974:25), which is potentially plural number added to the third person marker and affected by regressive vowel assimilation (*=na=yi* [=3=PL] > *=ni=yi*). The form *=ni* used in this work may be the product of the application of segment deletion to this form (§2.3.6). However, McKelson (1974) often also represents the clitic simply as *ni*, and data collected in the 1990s give no indication of the form being multi-syllabic or containing a long vowel (although it sometimes has an initial retroflex consonant *=rni*). The form *ya* occurs commonly in some clitic combinations (*e.g. =niya* [3PL.S>3SG.O], *=niya=na* [3PL.S=2SG.O]). Closely related languages employ glide-initial 3PL.S clitics: *=ya* in Wangkajunga (Jones 2011:136), Warnman (Burgman 2010:33), Karajarri, and Yulparija (McKelson 1978), and in Nyangumarta, *=yi* (McKelson 1978) or with an unspecified vowel *=yV* (Sharp 2004:244). However, in Mangarla, *-ya* also occurs in BP complexes which do not contain 3PL.S, and outside the BP complex in similar phonological environments and is thus, treated here as an optional epenthetic element (§2.3.5).

In **imperative constructions** (§8.3.7), a second person subject clitic is generally omitted (6.13) but not obligatorily (6.14). However, when the addressee is non-singular, number markers are generally attached directly to the verb with any non-subject clitics (6.15-16).

6.13 *yaji-paja*
yaji-pu-wa=ja
wait-AUX-IMP=1SG.OBL
'Wait for me.' (93sen16)

6.14 *ya-rra=**n**-nga=la*
go-IMP=**2SG.S**-EP=3SG.OBL
'Go to him.' (93sen63)

6.15 *yaji-pa=ja=**pala***
wait-AUX.IMP=1SG.OBL=**DU.S**
'You two wait for me.' (93sen17)

6.16 *lampu ya-rra=**yi***
sleep go-IMP-**PL.S**
'Go to sleep you lot!' (2sen109)

The forms of imperative subject number markers are identical with those of third person in neighbouring Nyangumarta (Sharp 2004), Wangkajunga (Jones 2011), and Warnman (Burgman 2010), but as indicated above, the status of *=yi* as a 3PL number marker in Mangarla is unclear. An argument to treat these as general number markers is not as convincing as it is for languages, such as Warlpiri (Hale 1973) and Bilinarra (Meakins and Nordlinger 2014), where the same number markers are also found on some first person clitics which are affected by the same morphological segmentation processes.

Non-subject clitics in imperatives (6.13-15) are identical to those in declarative sentences and are subject to the same clitic shifting and morphophonological processes (§6.1.2).

6.1.1.2 Object

Object clitics generally occupy the second slot of the BP complex. All non-singular clitics carry the accusative marker *-ny*, as shown in Table 6.4. Object clitics register the direct object of transitive and ditransitive verbs. Any coreferential NP in the examples which follow is in the unmarked absolutive (underlined).

Table 6.4 Object clitics

	Singular	**Dual**	**Plural**
1IN		*=ngaliny*	*=nganyjurruny* *=nyjurruny*
1EX	*=nya*	*=yarrany*	*=ngarniny*
2	*=na* *=nga*	*=mpalany*	*=nyurruny*
3	*Ø*	*=palany* *=napalany*	*=iny* *=jiny* *=niny* *=nginy*

6.17 *mil-ka-ngku=na=**mpalany** nyumpala-Ø*
eye-AUX-FUT=3SG.S=**2DU.O** you2-ABS
'He will see you two.' (G115)

6.18 *nga=ni=**ngarniny** ngunyi-ma-narri wanjirrarti-karti ngarrungarti-karti*
CAT=3PL.S=**1PL.EX.O** send-AUX-IPFV other.PL-ALL person.PL-ALL
'They sent us to those other people.' (FKsen71)

6.19 *yu-wa=**nya** mangarri-Ø ngayu-Ø*
give-IMP=**1SG.O** veg.food-ABS I-ABS
'Give me bread.' (93sen8)

6.20 *idaganya balanya gau ba bilyur ba*
*yita-ka-nya=Ø=**palany**-ya kawu-pa pilyurr-pa-Ø*
give-AUX-PST=3SG.S=**3DU.O**-EP body-and heart-and-ABS
'He gave them [Adam and Eve] a body and a soul.' (McK:RT)

The inital syllable of 1PL.IN.O (which is homophonous with the catalyst/epenthetic *nga*) is occasionally deleted (6.21), although this is optional (6.22).

6.21 *wajarri=**nyjurruny** mil-kayi*
NEG=**1PL.IN.O** eye-AUX.NPIRR
'Don't watch us all.' (A74)

6.22 *yita-ka-nya nga=ni=**nganyjurruny**-ya*
give-AUX-PST CAT=3PL.S=**1PL.IN.O**-EP
'They gave it to us all.' (2sen89)

The citation form of the 2SG.O clitic is *=na*.

6.23 *ganguyarra-na*
*ka-nku=yarra=**na***
take-FUT=1DU.EX.S=**2SG.O**
'We will take you (he and I).' (McK:45)

However, a few speakers use *=nga* 2SG.O in many examples with 1SG and 3SG subjects.

6.24 *ngayu-ngku* *nga=**nga**=rna* *mil-ka-nya*
I-ERG CAT=**2SG.O**=1SG.S eye-AUX-PST
'I saw you.' (3Sen65)

6.25 *mil-ka-nya=**nga**=rna*
eye-AUX-PST=**2SG.O**=1SG.S
'I saw you.' (G110)

The use of *=nga* as 2SG.O is problematic in several ways. Firstly, it is anomalous in its placement ahead of all other clitics in the complex including those which outrank it on functional (S > O/OBL) and person hierarchies (1SG > 2SG - see §6.1.2.2) which operate in Mangarla and many related languages (*e.g.* Dixon 1980:363, McConvell 1980:61-69). Secondly, both its form, and its fixed position at the start of the BP complex are also shared by the catalyst (§6.3.2), from which it may have evolved. These shared features make some clitic combinations ambiguous, and hard to interpret in clauses where no free pronoun and/or context is given. The BP complex in (6.26) is phonologically identical to that in (6.25), but the objects they register are different in person and number.

6.26 *ngayu-ngku* ***nga=rna=Ø*** *mil-ka-nya*
I-ERG **CAT=1SG.S=3SG.O** eye-AUX-PST
'I saw him.' (3Sen64)

However, the catalyst *nga=* and 2SG.O clitic *=nga* can co-occur in the Jarlmadangah corpus (6.24). McKelson (1974) has no such examples, but many with a single *nga* are translated as having a second person singular object, in the same way as (6.25). If *=nga* is not analysed as a 2SG.O allomorph, and functions only as a catalyst (§6.3.2) or epenthetic element (§2.3.5) in such examples, then two additional problems arise. No account can be given, firstly, for its use twice in sentences like (6.24), and secondly, for its omission or realisation as *=Ø*, which, as in many Australian languages, is interpreted as 3SG.O by default (6.26). These difficulties are further examined in §6.1.2.1, where the homophony of 3SG.S and 2SG.O *=na* is shown to increase syntactic ambiguity.

Two allomorphs of 3DU.O correspond to the subject allomorphs with the addition of accusative marking. One lacks overt person marking (6.20) and the other contains the overt *=na* (6.27).

6.27 *ngalyarra-ju nga=yarra=**napalany** ma-na*
s/he&I-ERG CAT=1DU.EX.S=**3DU.O** get-PST
'S/he and I got two lots.' (G128)

Surface forms of the 3PL.O *=iny* vary considerably. McKelson (1974) records *in*, and later *yin* (McKelson 1978), but I have always recorded the final accusative palatal *=iny* and treat the initial palatal glide as an optional epenthetic element which feeds diphthongisation (§2.3.5, §6.1.2.1).

6.28 *kakurtu nga=Ø-y=**iny** ka-ngarri wurna*
finish CAT=3SG.S-EP=**3PL.O** take-IPFV move.off
'That's all, she is taking them and moving on.' (PSan75)

While these morphophonological processes are applied by most speakers, particularly after a low vowel, others employ vowel reduction. This generally affects a morpheme-final vowel (6.29) but in some combinations, it is the initial vowel of 3PL non-subject clitics which is dropped (6.30), leaving a form homophonous with the accusative marker (*i.e. =iny > =ny*). Homophonous and allophonic BP complexes produced by the application of different morphophonological processes particularly affect 3PL non-subject clitics and are examined in §6.1.2.1.

6.29 *yurranyangu nga=n(i)=**iny** kurlmirri-ka-na*
morning CAT=3PL.S=**3PL.O** round.up-AUX-PST
'The next morning they rounded them up.' (Ngi36)

6.30 *ma-na=Ø=**ny** karli, mangurl, karrpirna*
get-PST-3SG.S=**3PL.O** boomerang spear shield
'He got boomerang, spear and shield.' (Ngi25)

Several consonant-initial allomorphs of 3PL.O also occur (together with 3PL.OBL/OBL2 forms built on the same stems - §6.1.1.3-4). McKelson (1974) records instances of *=nginy*, possibly also formed from the epenthetic *nga*, which undergoes vowel reduction.

6.31 *ganguyarra ñiin* *Broome gadi*
*ka-nku=yarra=**nginy*** Broome-*karti*
carry-FUT=1DU.EX.S=**3PL.O** placename(E)-ALL
'We two, he and I, will take them to Broome.' (McK:45)

The *=jiny* allomorph is associated with a few individuals. Its use may be dialectal or influenced by related languages to the south which also employ 3PL.O clitics with intial palatal stops (*e.g.* Karajarri *=jinya*, Nyangumarta *=janinyi*, Yulparija, Wangkajunga, Warnman *=jananya*).

6.32 *rarrarra=ni=**jiny*** *wirrja-na*
one.line=3PL.S=**3PL.O** put-PST
'They put them in a single line.' (1M48alt)

The *=niny* form may have been created by analogy with other object forms, whereby accusative marking is added to the subject, (*i.e.* *=ni-ny* [3PL.S-ACC]). The same form can be produced in combination with nasal initial subject clitics as in (6.29) (such allophonic complexes are examined in §6.1.2.1). However, *=niny* also occurs in other environments, such as when the preceding clitic contains no nasal phoneme, or when no subject clitic precedes it, such as when inverted due to clitic shift (§6.1.2.2) or in an imperative where the subject clitic is usually deleted (6.33).

6.33 *nyurrañgu* *dyidanyigaraninyi* *gudil da*
nyurra-ngku *jitany-i-ka-rra=**niny**-yi* *kutil-ta*
you.all-ERG sit-EP-AUX-IMP=**3PL.O**-PL.S green.grass-LOC
'Make them sit on the green grass.' (McK:RT)

6.1.1.3 Oblique

Most non-singular oblique clitics are formed with the same person/number stem as object clitics but replace the accusative suffix with the oblique suffix *-ngka*. Singular oblique clitics and 3PL.OBL have unsegmentable forms.

Oblique clitics register oblique arguments selected by extended intransitive (§11.3.4), semitransitive (including conatives - §11.3.6) and ditransitive verbs (§11.3.8), as well as nominal predicates (§12.3).

Table 6.5 Oblique clitics

	Singular	**Dual**	**Plural**
1IN		*=ngalingka*	*=nganyjurrungka*
1EX	*=ja*	*=yarrangka*	*=ngarningka*
2	*=ngka*	*=mpalangka*	*=nyurrungka* *=nyurrangka*
3	*=la*	*=palangka*	*=inya* *=jinya* *=ninya* *=nginya*

Oblique clitics are also used to register non-selected participants such as possessors (§10.4.4) beneficiaries and associated participants (§11.4), in all but third person plural. The OBL2 clitic is used in that instance and also alternates with the 3PL.OBL to register goals and accessories for some speakers (§6.1.1.4). Oblique arguments can be expressed by NPs (underlined in the following examples where present) in the dative (6.34), genitive (6.35), locative (6.36), allative (6.37), and the ablative. Only the BPs which cross-reference them differentiate most dative arguments from absolutive ones, as both employ zero-marking on NPs (§4.3.3.1). While most oblique clitics register animate participants, this is not a requirement (6.36 - see also §6.2.1).

6.34 *Mangarla nga=rna=**ngka** marra-narri nyuntu*
Mangarla CAT=1SG.S=**2SG.OBL** say-IPFV you.SG.DAT
'I am talking Mangarla to you.' (1R46)

6.35 *murta=**palangka** ngapa wanti jurru-yarra-kura*
nothing=**3DU.OBL** water be.PRES snake-DU-GEN
'The water just belongs to the two snakes.' (MC8)

6.36 *yalparra jurra-nku=rna=**la** ngapa pulawa-ja*
again pour-FUT=1SG.S=**3SG.OBL** water flour(E)-LOC
'I will pour more water into the flour.' (HTD20alt)

6.37 *wulu=na=**ngarningka** kapa-narrinya nganarni-karti*
father=3SG.S=**1PL.EX.OBL** sit-NARPST we.all.EX-ALL
'Father comes and sits with us.' (1J79alt)

The 3SG.OBL clitic is inconsistently pronounced with an alveolar or a retroflex lateral. Like Tsunoda (1981:56, 71), I am unsure how best to represent this and have opted to follow the non-retroflex initial forms found performing similar functions in the Western Desert languages (*e.g.* Warnman *=la* 3SG.LOCATIVE (Burgman 2010:33,[21] Sharp 2004:245), Karajarri *=(ra)la* 3SG.DATIVE (Tsunoda n.d.), Nyangumarta *=lu* 3SG.DATIVE, *=lV* 3SG.LOCATIVE (Sharp 2004:245), Wangkajunga *=lu* 3SG.ACCESSORY (Jones 2011:139) rather than the retroflex initial *=rla* oblique/indirect object of the Ngumpin languages to the east (Hudson 1978, Meakins and Nordlinger 2014, McConvell 1980). It is extremely unfortunate that this study cannot definitively characterise the phonology of this clitic in Mangarla, something which is important for future investigations, particularly in the field of classification.

Consonant-initial allomorphs of 3PL.OBL, *=jinya* (6.38), *=ninya* (6.39) and, in McKelson (1974) *=nginya*, alternate with *=inya* (6.40), under the same conditions described for 3PL.O.

6.38 *yaji-pinya=ngarni=**jinya*** *wanyjirrarti*
wait-AUX.PST=1PL.EXS=**3PL.OBL** other.PL
'We waited for some others.' (1M73)

6.39 *paniyarti=yarra=**ninya*** *yaji-pu-ngarri*
they=2DU.EX.S=**3PL.OBL** wait-AUX-IPFV
'We two are waiting for them.' (2sen77)

6.40 *pani-ngku* *nga=Ø-y=**inya*** *yita-ka-nya* *kuwi*
s/he-ERG CAT=3SG.S-EP=**3PL.OBL** give-AUX-PST meat
'He gave meat to them.' (2sen64)

Some third person plural non-subject arguments are treated differently to those of other persons. The transitive verb *wanyjan* 'leave' registers a 3PL non-subject argument as oblique (6.130) but uses an object clitic for all other persons/numbers (6.161 - §11.3.9.4),

[21] Burgman (2010:33) analyses this as an allomorph of the *=Ø* object clitic, but an examination of his examples confirms Sharp's (2004:245) analysis that it registers 3SG locative marked arguments similar to those in Mangarla.

and while the ditransitive verbs *yita-kanga* and *yunga* 'give' can select an oblique recipient as an alternative to a secondary object, 3PL recipients are disproportionately registered as obliques compared to all others,[22] with some speakers even using 3PL.OBL2 =*inyala*, which can also replace 3PL.OBL to register other types of oblique arguments. Clitics from the oblique series register non-selected beneficiaries and possessors for all persons except 3PL when only the oblique2 is used (§6.1.1.4). This variation is also indicated by McKelson (1978) who uses the notation '*yinya//la ?*' in an otherwise regular oblique clitic paradigm.

6.1.1.4 Oblique2

Many Pama-Nyungan languages in the region have the capacity to expand the number or type of participants registered in the BP complex by augmenting another clitic series (after Swartz 1982). Commonly, the augment is the same clitic which registers 3SG dative NPs. For example, in Wangkajunga, =*ra* 3SG.DAT is added to the object/accessory clitics to register 'predominantly human animate sources' in the ablative (Jones 2011:140), and Jaru augments the accusative/dative clitic series with the 3SG.DAT clitic =*la* to register grammatical functions in local cases (Tsunoda 1981:127). The same combination can also be interpreted as registering two dative arguments, one of which is third person (p.150-151). In Warlpiri, 3SG.DAT =*rla* is used in the same way to signal multiple or complex dative arguments, but in both Warlpiri and Jaru, the double sequence =*(r)la*=*(r)la* 3SG.DAT=3SG.DAT is not permitted, and both languages employ a special form when both dative NPs are 3SG. In Warlpiri, this is =*rlajinta* (Hale 1973:336, Simpson 1991:331), while the Jaru form =*la*=*nyanda* is homophonous with =3SG.DAT=3SG.LOC (Tsunoda 1981:130, 150-151).

Mangarla adds 3SG.OBL =*la* to clitics of the oblique series, except 3SG.OBL, to indicate the presence of a second oblique argument. However, unlike the other languages just

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[22] Only one example from dozens contains the 3PL.O clitic (McKelson (n.d.) religious translations). Verbs meaning 'give' are also cross-referenced differently in other languages of the region. In Nyangumarta, the equivalent verb selects an absolutive recipient which is registered by the object clitic for all but 3SG recipients, which are in the locative and registered by the locative clitic (Sharp 2004:341). In Pintupi too, the verb 'give' behaves unexpectedly. Despite assigning dative case to the NP in the same ways as for other persons, only 3SG recipients are cross-referenced by the dative clitic, while the object/accessory clitic series is used for all other persons/numbers (Hansen and Hansen 1978:56).

mentioned, Mangarla has no distinct third person singular form in the augmented series, and is unable to signal the presence of two third person obliques in the BP complex.

The use of OBL2 clitics is relatively infrequent and so, while not all persons in Table 6.6 are attested (indicated by '?'), their form is assumed by analogy with those that are.

Table 6.6 Oblique2 clitics

	Singular	**Dual**	**Plural**
1IN		*?=ngalingkala*	*=nganyjurrungkala*
1EX	*=jala*	*?=yarrangkala*	*=ngarningkala*
2	*=ngkala*	*?=mpalangkala*	*?=nyurrungkala*
3		*?=palangkala*	*=inyala*

An OBL2 clitic most commonly registers the presence of two oblique arguments. These commonly occur when a non-selected participant (§11.4), such as a beneficiary, is added to a clause which already contains an oblique argument. In (6.41), a third person oblique argument (underlined) selected by the verb is the dative complement of a semitransitive verb, while in (6.42), it is an optionally selected affected location.

6.41 *yina-nku=rna=**ngkala*** *pantarti panjurn-arti-Ø*
name-FUT=1SG.S=**2SG.OBL2** MED.PL wood-PL-DAT
'I will say the names of those trees for you.' (HTS46)

6.42 *buna wirdyabadyala* *gadyunga* *(damayinadya)*
*puna wirrja-pa=**jala*** *kaju-ngka* */(jamayina-ja)*
handle put-AUX.IMP=**1SG.OBL2** steel.axe-LOC /(axe-LOC)
'Put the handle on the axe for me.' (McK:105)

Compare (6.42) to (6.43-44) which employ the same verb but do not use OBL2 clitics. In (6.43), the 3SG.OBL clitic registers an affected location (a damper being cooked) but the clause lacks a beneficiary, and in (6.44), which contains no affected location, a beneficiary is registered by a simple oblique clitic.

6.43 *wirrja-ngarrinya=rna=**la*** *jartarrangka, warlu pikarl-tu*
put-NARPST=1SG.S=**3SG.OBL** long.time fire shovel.coolamon-ERG
'A long time ago, I used to place fire on it, using a coolamon.' (HTK10)

6.44 *wirrja-ngarrinya=**ngarningka***
put-NARPST=**1PL.EX.OBL**
'She put them out for us.' (J102)

In contrast to many related languages, Mangarla has no mechanism to register multiple obliques with 3SG referents, unless one of them is coreferent with the subject and thus marked by the reflexive OBL2 (§6.1.1.5). The sequence in (6.45) contrasts a simple beneficiary registered by the 3SG.OBL clitic in the first clause with the 3SG.OBL2 registering same beneficiary and an accessory, *kuwi*.

6.45 *kuwi=na=**rnangka*** *muku-narru,*
meat=3SG.S=**RROBL** club.AUX-FUTIPFV

*nga=na=**rnangkala*** *kapa-nku* *kuwi*
CAT=3SG.S=**RROBL2** sit-FUT meat.DAT
'He will keep killing meat for himself. He will come and sit down with meat for himself.' (HTG175-175alt)

The OBL2 clitic also registers the purpose of the main event, or a participant associated with it (associated participants are examined in §11.4.3). The secondary event also involves a participant in an oblique function. Although the original translation does not capture it, the beneficiary/goal of the main event in (6.46) is involved in a subsequent event, which is the purpose of the action described by the verb (§11.4.3). The secondary event is associated with the participant *warlu*.

6.46 *muri muri gawanidyala* *walu*
*muri~muri ka-wa=rni=**jala*** *warlu-Ø*
log~RDP carry-IMP=toward=**1SG.OBL2** fire-DAT
'Bring me logs of wood.' (McK:91)
'Bring here to me logs for the fire.'

The speaker's initial use of 2SG.OBL in (6.47), is taken to indicate that the participant is originally interpreted as an accessory, and replacement of the clitic with 2SG.OBL2 is a revision made to indicate that the main event is enacted for a purpose. The speaker

expresses the purposive NP as an afterthought to clarify the nature of this purpose and to indicate the role played by the referent in the subsequent event.

6.47 *nyaltu=ni=**ngka**,*
PROX=3PL.S=**2SG.OBL**

*nga=ni=**ngkala** warr-wajili-pu-ngarri, <u>nyuntu-purru</u>*
CAT=3PL.S=**2SG.OBL2** come.together-AUX-IPFV <u>you.SG-PURP</u>
'Here with you, they are all assembling with you for it, for (grabbing) you.'
(FK37)

In (6.48), children are waiting at a station to be picked up and taken elsewhere.

6.48 *nga=ni=**ngarningkala** <u>nganarni-Ø</u> nguwi-na*
CAT=3PL.S=**1PL.EX.OBL2** <u>we.all.EX-DAT</u> return-PST
'They came back for us.' (1M80alt)
(*lit*. 'They came back to us to pick us up.')

This example can be compared to (6.49), where a family in camp, registered as an unaugmented oblique accessory, is simply reunited with a returning hunter and no purpose is implied.

6.49 *nguwi-narrinya=**ngarningka***
return-NARPST=**1PL.EX.OBL**
'He came back to us.' (2J122)

Many related languages do not allow two sequential dative/oblique clitics unless one is *=(r)la* and some researchers propose that this has a distinct third person dative reference (*e.g.* in Warlpiri (Hale 1973:335-337), Jaru (Tsunoda 1981:139-140, 150), and Bilinarra (Meakins and Nordlinger 2014:231)). However, Swartz (1982) refutes this for Warlpiri. Instead, he analyses *=rla* as a simple augment which signals the presence of two dative arguments, and it is the person number features of the most semantically peripheral which are specified. Thus, there can be no person/number disagreement when the referent of the other is non-singular, a possibility in all these languages and shown for Mangarla in (6.41), or has a non-third person referent. For example, Swartz (1982:91) finds that Warlpiri speakers readily accept sentences such as (6.50 - Swartz's (33)), where the clitic

-jurla overtly expresses the person/number features of a beneficiary and the 2SG dative complement is construed with *-rla*.

6.50 *ngarrka-ngku-lpa-Ø-ju-rla* *nyuntu-ku* *warru-rnu* *ngaju-ku*
man-ERG-CAT-3SG-1SG-3SG you-DAT seek-PAST I-DAT
'The man was looking for you for me.' (Warlpiri)

Further research is needed to determine if the OBL2 series can be used in Mangarla when two non-third person obliques occur, as in (6.50). Available examples all contain one third person oblique, or involve purpose. Rarely are both obliques expressed as NPs, with the OBL2 clitic providing the only indication of a second oblique participant. Purpose, in particular, is often unspecified, and while associated participants, such as *warlu* in (6.46), are sometimes expressed, they are more often omitted. The OBL2 clitic always specifies the person/number features of the non-third person participant regardless of its grammatical function, which can be ambiguous. In (6.41-42, 6.45), the features of the beneficiary, the most semantically peripheral argument, are specified. However, in clauses which register a purpose, the features of selected participants are specified. These are considered to be a goal in (6.46) and accessories in (6.47-48). However, the examples are ambiguous and the participant signalled by the first person OBL2 clitic in (6.46), might instead be an unselected beneficiary, and in (6.48), the dative NP *nganarni* may be a selected accessory in the main event or a participant associated with the secondary event, or even a maleficiary. Potentially, the participant whose features are specified can be associated with any semantically appropriate oblique role/function. This may be influenced by a hierarchy of person or semantics, as described below. Other researchers also find that an augmented non-subject form may have multiple function assignments (Simpson 1991:426-427, Tsunoda 1981:127), as described below.

The OBL2 clitic can also occur where two oblique arguments are not clearly identifiable, particularly when an oblique participant has a 3PL referent. Speakers often alternate between OBL and OBL2 clitics in the same context. Both can be difficult to account for and every instance may have a different motivation. A semantic hierarchy seems to operate whereby roles to the left of (6.51) are less likely to be registered by OBL2 clitics, while those on the right are more likely to be. For most persons, where there is variation between OBL and OBL2, roles to the left in (6.51) trigger OBL2 only rarely, while those on the right

do so more frequently. However, for 3PL non-subject arguments, roles on the far right no longer allow optional use of the unaugmented OBL clitic, while those to the left still alternate between 3PL.OBL and 3PL.OBL2 clitics.

6.51 *accessory > recipient > goal > affected location > beneficiary > possessor*

While beneficiaries and oblique possessors (§10.4.4) are generally registered by an oblique clitic (§6.1.1.3 - 6.52), this is often unpredictably replaced by the OBL2 clitic. McKelson (1974) provides a number of examples where non-third person plural beneficiaries and possessors are registered alternately as the expected OBL (6.52) or OBL2 (6.53) clitics. Here, the OBL2 might potentially be explained as registering an implied purpose for the ashes or their source, but this is impossible to verify without context or an NP, and for other examples such as (6.54), the nature of this hypothetical argument is even more obscure.

6.52 *mara dya ṉaba*
*ma-rra=**ja** ngapa*
get-IMP=**1SG.OBL** water
'Get me water.' (McK:128)

6.53 *dyurnbuly maradyala*
*jurnpurl ma-rra=**jala***
ashes get-IMP=**1SG.OBL2**
'Get ashes for me!' (McK:91)

6.54 *minin ṉanangala gudaman*
*mininy nga=rna=**ngkala** kuta-ma-n*
language CAT=1SG.S=**2SG.OBL2** fail.to.perceive-AUX-PRES
'I don't understand your language.' (McK:96)

Third person plural beneficiaries and recipients are almost universally registered by 3PL.OBL2, unless coreferent with the subject and thus registered by the reflexive clitic. Only one example shows a beneficiary registered by the expected 3PL.OBL (McKelson 1974:25) but the same sentence on page 154 employs 3PL.OBL2. Other 3PL beneficiaries in that work are all registered by 3PL.OBL2, as in the Jarlmadangah corpus.

6.55 *nga-y=**inyala*** *kartiyarti muku-narru*
CAT-EP=**3PL.OBL2** child.PL club.AUX-IPFVFUT
'He will kill (meat) for the children.' (HTG177)

6.56 *nyaltu nga-y=**inyala*** *kuwi paniyarti-kura*
PROX CAT=**3PL.OBL2** meat they-GEN
'This meat is theirs.' (2sen56)

OBL2 clitics are also used by some speakers instead of the expected OBL to register 3PL accessories, goals and sources.

6.57 *purta-nya=ni=**inyala**,* *ngaja~ngaja-karra*
come-PST=3PL.S=**3PL.OBL2** cry~RDP-MAN
'They came on them, crying.' (FKNgi31)

6.58 *pantu-karra nga-y=**inyala*** *marra-na wajarri=awu*
MED-MAN CAT-EP=**3PL.OBL2** say-PST NEG=EMPH
'Just like that, he said to them, "No."' (FKNgi66)

The alternation of 3PL.OBL and 3PL.OBL2 often involves predicates with alternative case frames, able to select complements in either the dative or local cases. The speaker of (6.59-60) uses 3PL.OBL with these predicates on multiple occasions in natural speech, but changes the clitic to 3PL.OBL2 in these two sentences during later glossing sessions as an optional alternative, but gives no explanation, or amended translation. The changes are potentially explained by reference to a second oblique, proposed in the hypothetical alternative translations, such as oblique possessive (6.59) or unspecified purpose.

6.59 *pararrka=pa=**nya(la)*** *jarri-ma* *pantarti ngarrungarti*
sorry=ASSERT=**3PL.OBL(2)** INCH-PSTIRR MED.PL person.PL
'He should've felt sorry for those people. (Ngi66/alt)
(?'He should've felt sorry for those people, his relatives/for it.')

6.60 *marra-na=**nya(la)**,* *warlu murni-rra=yi*
say-PST=**3PL.OBL(2)** fire gather-IMP-PL
'He said to them, "Gather firewood."' (Ngi56(alt))
(?'He said to them, "Gather firewood for it."')

Alternations between OBL and OBL2 clitics also occur occasionally with other person/number referents (6.47, 6.61-62) in similar circumstances. In (6.61), the speaker adds the augment as optional in a later glossing session, while in (6.62a-b), a speaker simply repeats the previous clause within the narrative, changing the clitic.

6.61 *nganarni*=***ngarningka(la)*** *kapa-narrinya yurrany~yurrany-marta*
we.all.EX.DAT=**1PL.EX.OBL(2)** sit-NARPST sunrise~RDP-CPR
'He would come back and sit with us around sunrise.' (1J79(alt))
(?'He would come back and sit with us around sunrise to give us our meat.')

6.62 *a) ngaja-nya=ngarni-ya=**rnangka***
cry-PST=1PL.EX.S-EP=**RROBL**
'We cried for ourselves/with each other.' (FKNgi31a)

*b) nganarni-ju=ngarni-nga=**rnangkala** ngaja-nya*
we.all.EX-ERG=1PL.EX.S-EP=**RROBL2** cry-PST
'We cried for ourselves/with each other.' (FKNgi32)
(?'We cried for (the loss of) our relatives.')

The predicates used in each of these instances occur elsewhere in similar contexts with unaugmented OBL clitics, and the reason for these 'revisions' is difficult to ascertain, unless, what often seems like uncertainty, inconsistency or optionality, is in fact conscious speaker revision to imply a more complex situation than initially conveyed. They may be using the OBL2 clitic to add reference to a motivating purpose, or an additional, understood but unspecified, oblique participant, such as suggested by the alternative translations above. Although unverified, these translations reflect the narrative context of each utterance. Such information could also be expressed by an unregistered NP in an appropriate case (*e.g.* purposive (as in 6.47), dative or genitive), as it can in Warlpiri (Swartz 1982, Simpson 1991:411-412), where this option also alternates with 'double registration' in the BP complex. When the NP is omitted, however, the only way to indicate that such an argument is present in the speaker's mind is the augmented OBL2 clitic. However, such a hypothesis is a stretch for some uses of double registration (*e.g.* 6.54, 6.60).

The unpredictable and sometimes inconsistent use of OBL2 clitics might be explained by the application of different interpretations by individual speakers who seem to employ it

in different ways. Some of these interpretations may result from the impact of language contact and the way neighbouring languages employ similar augmented clitics.

Related languages also show variation in the way individual speakers use and interpret augmented non-subject clitics. Some Warlpiri speakers add *=rla* to a non-subject clitic to ensure the non-subject clitic is interpreted as a dative argument, leaving open the possibility that it represents only an external object, such as a beneficiary or possessor (Simpson 1991:407). For others, it signals the presence of a second dative argument (Laughren 1996, Nash 1996, Swartz 1982), and for some of those, the two datives must be in a relationship of 'possession', an expanded notion which includes potential possession and purpose (Simpson 1991:407, 413, 430). Simpson also finds that, in Warlpiri, double registration is optional in some instances, and alternations occur where both or only one oblique is registered (p. 412), as seen above in Mangarla.

Another complicating factor is that complex clitics may be ambiguous. Augmented systems can produce homophonous forms with different interpretations in both Warlpiri (Simpson 1991:426), and in Jaru, where an augmented non-subject clitic registers an NP in a spatial case (Tsunoda 1981:127), but a homophonous form can register a third person dative argument with a beneficiary. In Walmajarri (Hudson 1978:63-66), the augment also signals the presence of a locative (accessory) NP, but having a dative *and* accusative series of clitics, the *=rla* augment can be added to either, also producing allophonic variations. Reasons for choosing one series over the other to be augmented are complex, but the augmented dative series is associated with, amongst other things, particular BP combinations, the presence of both a dative and accessory argument (particularly of the same number), and with ditransitive verbs that have alternative case frames, selecting either a dative or locative complement. Speakers also make stylistic as well as semantic judgements when making their selection, and alternations between augmented dative and augmented object clitics are particularly common when non-singular third person referents are involved.

In Mangarla, only one clitic series is augmented (OBL) and augmentation is not required to register arguments in local cases (§6.1.1.3), as it is in Jaru and Walmajarri. However, it is possible that some (but not all, thereby resulting in inconsistent data) multilingual Mangarla speakers also use the augmented OBL2 clitic to signal that the NP being registered is in a spatial case rather than the dative. This may explain the high degree of

variation involving verbs which select a goal or accessory. One verb, which in both Mangarla and Walmajarri selects a locative complement, is *papurra* 'forget about'. This is registered by 3SG.OBL (6.63) or by OBL2 clitics when the referent is not third person (6.64-65). All examples come from frequent users of OBL2 and how those who use OBL2 clitics less often would express them is unknown at this time. It may also be possible that this verb encodes a complex oblique involving possession, meaning something like 'forgot (about his responsibility for) me'. The semantics and alternative argument structures of some verbs such as this are complex, and would benefit from further research.

6.63 *ulyu nga balala* *babuna*
*wulyu-ngka=pala=**la*** *papu-na*
good-LOC=3DU.S=**3SG.OBL** forget.AUX-PST
'They forgot what was good.' (McK:RT)

6.64 *papu-na=na=**jala*** *pani-ngku*
forget.AUX-PST=3SG.S=**1SG.OBL2** s/he-ERG
'He forgot about me.' (H38)

6.65 *pantangkaju=**ngarningkala*** *papu-na* *wulu* *nganarni-kura-ju*
after.that=**1PL.EX.OBL2** forget.AUX-PST father we.all.EX-GEN-ERG
'Our father was lost to us.' (FK23)
(*lit*. 'After that, our father forgot about us.')

Alternatively, for some speakers, the OBL2 clitic appears to be optionally used to ensure that an oblique is interpreted as referring to an external participant such as a beneficiary or possessor, as it is in Nyangumarta and Karajarri (Sharp 2004:364, Sands 1989:55, Burgman 2005b) and particularly when the semantic role of the referent may be ambiguous. The OBL2 in (6.54) which is not easily accounted for, corresponds directly to the same sentence in Karajarri (Burgman 2005b:22) where augmented clitics are always used to register possessives. This practice is no longer optional in Mangarla for 3PL, where OBL2 is always used for external participants, including oblique possessors, but its use in place of the simple oblique in (6.54) and elsewhere may be optional, to ensure a possessive interpretation rather than some other (*e.g.* 'I can't understand the language for you (on your behalf)/(being spoken) to you' *etc*.).

While hypothetical translations or pleonastic arguments can be posited for some occurrences, others can only be explained by idiolect. Like more complex aspects of English, such as subjunctives or accusative interrogative pronouns, speakers' understanding and practical application of the rules vary considerably.

6.1.1.5 Reflexive/reciprocal

Reflexive/reciprocal clitics (RR) register a non-subject argument which is coreferential with the subject or in a part-whole relationship with it (§10.4.3). They occur in the second BP slot and, with number and person provided by the subject clitic, take one of three invariable forms according to grammatical function. The simple RR *=rna* (homophonous with 1SG.S clitic) registers an object (6.66). The oblique case suffix is added to this to register an oblique, *=rnangka* (RROBL) (6.67). The augmented form *=rnangkala* (RROBL2) occurs rarely and registers an oblique participant which is coreferent with the subject and either co-occurs with another oblique or is in a relation of possession with another argument (6.62b, 6.67). Object forms are used for all persons and numbers but are replaced by regular oblique forms with 1SG (6.68-70) and, optionally with the 2SG in imperatives (although OBL2 in these contexts are unattested).

Table 6.7 Reflexive/reciprocal clitics

object	oblique	oblique2
=rna	*=rnangka* *=ja* (1SG.OBL) *=ngka* (IMP)	*=rnangkala* *?=jala* (1SG.OBL2) *?=ngkala* (IMP)

The case frame of the verb is unchanged by the use of the reflexive which, unlike some other Australian languages, does not derive an intransitive verb from a transitive one (shown by the ergative-marked subject in (6.66)). Both types of oblique reflexives are shown in (6.45) repeated as (6.67).

6.66 *pani-ngku* *mil-ka-nya=na=**rna***
he-ERG eye-AUX-PST=3SG.S=**RR**
'He saw himself.' (A78)

6.67 *kuwi=na=**rnangka** muku-narru nga=na=**rnangkala** kapa-nku kuwi*
meat=3SG.S=**RROBL** club.AUX-IPFVFUT CAT=3SG.S=**RROBL2** sit-FUT meat
'He will kill meat for himself and come and sit down with meat for himself.'
(HTG175/alt)

With a first person singular antecedent, the usual RR object clitic is used, despite the two being homophonous. However, the RROBL clitic is not attested with a first person singular antecedent and is replaced by the regular 1SG.OBL.

6.68 *kati-pinya=rna=**rna***
cut-AUX.PST=1SG.S=**RR**
'I cut myself.' (3Sen78)

6.69 *nimarrangka nga=rna=**rna** yakarnu-karra-ka-nku=rna=**rna***
hand CAT=1SG.S=**RR** thus-MAN-AUX-FUT=1SG.S=**RR**

*kularn-ju-nku nga=rna=**ja***
clean-AUX-FUT CAT=1SG.S=**1SG.OBL**
'I will rub my hands like this. I will clean it off myself.' (HTD31-32)

6.70 *kuwi nga=rna=**ja** muku-narrinya*
meat CAT=1SG.S=**1SG.OBL** club.AUX-NARPST
'I killed meat for myself.' (1J132)

When the subject is plural, an RR clitic can have either a reflexive or reciprocal interpretation, and is sometimes ambiguous (6.71). The epenthetic syllable *-ya* often precedes an RR clitic after a high vowel.

6.71 *wuly-wuly-ju-na nga=yarra=**rna** ngapa-artu-ju*
make.wet~RDP-AUX-PST CAT=2DU.EX.S=**RR** water-COM-ERG
'We splashed ourselves/each other with water.' (2J53)

6.72 *kuli=ni-ya=**rna** kanti-na panara yipa-na=ni-ya=**rna** kuli-ya*
anger=3PL.S-EP=**RR** hit-PST MED.LOC argue-PST=3PL.S-EP-**RR** anger-EP

paniyaru
they.ERG
'They hit each other there in anger. They argued with each other.' (2J138)

6.73 *Nyikina nga=ni-ya=**rnangka** marra-n.*
Nyikina CAT=3PL.S-EP=**RROBL** say-PRES
'They speak Nyikina to each other.' (1R119)

NPs marked by the absolutive or dative (both Ø) referring to the object are omitted unless they specify a part of the subject (6.69) or one member of a set in an inclusory construction.

6.74 *pantu=pala=**rnangka** piri-narrinya **paparla**, pani-ngku*
MED=3DU.S=**RR.OBL** look.for-NARPST **elder.brother** s/he-ERG
'He and my brother were looking for each other.' (2J85)

Reciprocal clitics can be used even when referents of object and subject are not strictly coreferent. In the next example, two travelling parties are viewed as a single group even though they have split up and not all are engaged in the action described by the verb.

6.75 *yaji-ngarrinya=pala=**rna***
wait-NARPST=3DU.S=**RR**
'The two were waiting for the other two.' (Nya108)

Despite the fact that non-reflexive 3PL benefactives are generally registered as OBL2 clitics (§6.1.1.4), all reflexive examples employ the usual RROBL clitic unless the sentence contains a second oblique, as in (6.67).

6.76 *dyanimanariya-naṉka*
*jani-ma-narri-ya=**rnangka***
cook-AUX-IPFV-EP=**RROBL**
'They are cooking for themselves.' (McK:44)

6.77 *kuwi nga=ni-ya=**rnangka** wulala-ka-na.*
meat CAT=3PL.S-EP=**RROBL** a.lot-AUX-PST
'They got a lot of fish for themselves.' (PSh95)

Volition is not required for a speaker to use the reflexive/reciprocal construction. The intentions of the speaker in (6.68) are indeterminable, but not in (6.78).

6.78 *babar babar dyu ṉanana gadibinya bulyar*
*paparr~paparr-ju nga=na=**rna** kati-pinya pulyarr*
mistake~RDP-ERG CAT=3SG.S=**RR** cut-AUX.PST sinew
'By mistake he cut his sinew.' (McK:77)

A few imperative clauses with a reflexive/reciprocal interpretation occur, all have a singular subject and most have an oblique RR. In most instances, RR clitics are identical to those in declarative sentences and attach directly to the verb, the subject clitic being deleted.

6.79 *undyurana mil*
*wuly-ju-rra=**rna** mil*
wet-AUX-IMP=**RR** eye
'Wash your eye!' (McK:162)

6.80 *dyanimara-nanga*
*jani-ma-rra=**rnangka***
cook-AUX-IMP=**RROBL**
'Cook it for yourself.' (McK:44)

Optionally, the regular 2SG.OBL may be used.

6.81 *burany ba nga mulnyi walu nga*
*purany-pa=**ngka** mulnyi walu-ngka*
wipe-AUX.IMP=**2SG.OBL** soil face-LOC
'Wipe the dirt from your face!' (McK:135)

6.1.2 Variation in the BP complex

The way clitics are combined in the BP complex is subject to a range of pressures. Ordering rules and competing morphophonemic processes, many of which are optional, lead to a high degree of variation in the expression of the BP complex. This can create problems for interpretation, but through the conventional use of one of several possible forms, it also provides speakers with a means to facilitate understanding. Epenthesis and other morphophonological processes produce a large number of alternative forms, some allophonic with identical reference but also homophonous forms with different reference

(§6.1.2.1). Syntactic and semantic factors also effect changes to the basic structure of the BP complex through clitic shifting in certain combinations (§6.1.2.2).

6.1.2.1 Allophony and homophony

While some multi-clitic BP complexes simply consist of citation forms attached to each other with a one-to-one correspondence of form and meaning, such as given by McKelson (1978), there is widespread formal variation caused by competing morphophonological processes, some of which do not occur elsewhere in the language, and, potentially, by the pressures of language contact and/or language shift.

Morphophonemic rules commonly applying to BP complexes are diphthongisation (§2.3.3), vowel assimilation (§2.3.4), glide and syllable insertion (§2.3.5), and vowel and segment deletion (§2.3.6). Each is fed or blocked in different clitic combinations and more than one process may be enabled in a particular environment, giving speakers a choice and resulting in multiple phonological forms with the same reference, particularly as many of these processes are optional.

Two phonologically motivated epenthetic syllables described in §2.3.5, *nga* and *ya* are particularly associated with the BP complex and affect its phonetic realisation. Both occur in other contexts too, where their use is less problematic. *Nga* is also optionally used as the catalyst base for the BP clitics (§6.3.2). The second optional epenthetic element *-ya* (§2.3.5) occurs after a phonological segment with the feature [+high]. Hence it is commonly, but not only, found with third person plural subjects (6.72-73, 6.76-77).

Some allophonic combinations are given below, with the underlying form on the left, and on the right, the rules which have applied to produce the surface form in the centre.

ni=ja	3SG.S=1SG.OBL	>	*=nija*	no rules
		>	*=niji*	vowel assimilation
		>	*=nijiya*	vowel assimilation, *-ya* insertion

ngarni=rnangka	1PL.EX.S=RR.OBL	>	*=ngarniyarnangka*	*ya* insertion
		>	*=ngarningarnangka*	*nga* insertion
		>	*=ngarnirningki*	vowel assimilation
		>	*=ngarnirningka*	partial vowel assim^{n}

Allomorphy and homophony with other potential members of the BP complex are found with some individual clitics (§6.1.1). These include *=na* 3SG.S/2SG.O, *=nga* 2SG.O/CAT, *=la* 1DU.IN.S/1PL.IN.S/3SG.OBL, *=rna* 1SG.S/RR, and *=ngka* 2SG.OBL/oblique case marker. Most of the time, position within the BP complex (taking into account clitic shift rules described in §6.1.2.2) and the transitivity of the predicate facilitates correct interpretation of these clitics. Homophony of 2SG.O/CAT may be the reason the speaker repeats the BP complex in (6.82)

6.82 *nguju=lpa tarrp ka-wa=**nga**=na=kulu,*
REC=ASSERT forever take-IMP=**2SG.O/CAT**=3SG.S=ANTIC

*nga=**nga**=na=kulu*
CAT=**2SG.O**=3SG.S=ANTIC
'It might take you for good, it might (take) you.' (FK90)

While in most cases, the problem of glossing individual components does not affect meaning, this is not always so.

6.83 *gadimanɲana*

karti-ma-n	*=nga=na*	*/nga=Ø=na*	*/nga=na=Ø*
hold-AUX-PRES	=2SG.O=3SG.S	/CAT=3SG.S=2SG.O	/CAT=3SG.S=3SG.O

'He holds you.'/
'He holds it.' (McK:95)

Fast or careless pronunciation where the omission, or perceived omission, of a retroflex nasal can also make many combinations indistinguishable from others, particularly first person and third person subjects (*e.g. ngani* [CAT=3PL.S] *cf. ngarni* [=1PL.EX.S] and *=na* [=3SG.S/2SG.O] *cf. =rna* [=1SG.S/RR]).

The invisibility of morphological boundaries in speech, where processes of lenition or deletion (shown in brackets below) are active, means that homophonous forms may potentially register different underlying morphological structures. However, complexes containing the vowel-initial 3PL non-subject clitics can be particularly problematic, often due to their similarity to the accusative marker. Alternative forms for the same combinations, as described above, are generally available to speakers to differentiate between combinations, but all of the following have been recorded.

ngaliny	<	*Ø=ngaliny*	3SG.S=1PL.IN.O	'he does it to us'
	<	*nga=l(a)=iny*	CAT=1PL/DU.IN.S=3PL.O	'we do it to them'
rnangka	<	*Ø=rnangka*	3SG.S=RR	'he does it for himself'
	<	*rna=ngka*	1SG.S=2SG.OBL	'I do it for you'
ngarninya	<	*Ø=ngarniny-ya*	3SG.S=1PL.EX.O-EP	'he does it to us'
	<	*nga=rn(a)=inya*	CAT=1SG.S=3PL.OBL	'I do it for them'
	<	*ngarn(i-y)=inya*	1PL.EX.S=3PL.OBL	'we do it for them'

As with many other areas of the grammar, pragmatics and context are often crucial to interpreting exactly what is registered in a BP complex, particularly when NPs are elided. Furthermore, the same morphophonemic processes which cause difficulties in interpretation can be used to avoid potential ambiguity and differentiate between clitic combinations. For example, the homophonous *niny* shown with alternative meanings in the first group below can be disambiguated by producing distinct forms after the application of rules which tend to insert elements rather than delete them, shown in the second grouping.

niny	<	*n(i-y)=iny*	3PL.S=3PL.O	'they do it to them'
	<	*n=iny*	2SG.S=3PL.O	'you do it to them'
	<	*n(a)=iny*	3SG.S=3PL.O	'he does it to them'

3PL.S=3PL.O	*niyiny*	<	*ni-y=iny*	glide insertion
2SG.S=3PL.O	*nngayiny*	<	*n-nga-y=iny*	*nga* insert^{n}, glide insert^{n}, diphthongisat^{n}
3SG.S=3PL.O	*nayiny*	<	*na-y=iny*	glide insertion, diphthongisation
	nany	<	*na(-y=i)ny*	?lenition of diphthong/frozen form

The Ø allomorph of 3SG.S can also be used as an alternative to *=na* to create allophonic variants which avoid ambiguity:

3SG.S=3PL.O	*yiny*	<	*Ø-y=iny*	glide insertion
	ngayiny	<	*nga=Ø-y=iny*	catalyst, glide insert^{n}, diphthongisat^{n},
	nginy	<	*ng(a)=Ø=iny*	catalyst, vowel reduction

Most speakers, including those recorded by McKelson (1974), prefer glide insertion and diphthongisation with 3PL.O/OBL clitics. Even though his orthography simply reflects the morphological structure of these combinations (6.84), McKelson (1974:25) specifically comments on the diphthongisation of these spoken combinations, where the combination *=na=inya* [=3SG.S=3PL.OBL] is 'pronounced as if one said "nine ya"'.

6.84 *milganyanain*
*mil-ka-nya=**rna-y=iny***
eye-AUX-PST=**1SG.S-EP=3PL.O**
'I saw them.' (McK:40)

In (6.85), the speaker repeats the BP complex, twice adding *nga*, firstly as a catalyst base, and secondly as epenthesis, creating the conditions for glide insertion and dipthongisation thereby avoiding the ambiguous *=ninya*.

6.85 *yaji-ngarri=**ninya**, nga=**n-nga-y=inya***
wait-IPFV=**2SG.S>3PL.OBL** CAT=**2SG.S-EP-EP=3PL.OBL**
'You are waiting for them, you for them.' (FKsen25)

Despite being phonologically permissable, some forms are generally avoided, while others have gained popularity with certain speakers in the Jarlmadangah corpus. For example, while the deletion of the first of two vowels (or vowel+glide segment) across a morpheme boundary (§2.3.6) is a common alternative to dipthongisation (6.86), another, used by some speakers, is to delete the second, which is invariably the initial vowel of a 3PL non-subject clitic (6.87-88). This possibly results from the lenition of a diphthong created by glide insertion shown in (6.84-85)). The practice extends to all phonological contexts where these clitics attach to a morpheme-final /a/, including most subject clitics and word of other classes such as verbs in past and narrative past tenses (6.88) when a subject clitic is null or unexpressed.

6.86 *mil-ka-nya=**rniny***
*mil-ka-nya=**rna=iny***
eye-AUX-PST=**1SG.S=3PL.O**
'I saw them.' (3Sen77)

6.87 *kakurtu nyalara-ja=**lany*** *wira*
*kakurtu nyalara-ja=**la=iny*** *wira*
finish PROX-LOC=**1PL.IN.S=3PL.O** shoot.FUT
'We will just shoot them here.' (Ngi45)

6.88 *munji-kanany*
*munji-ka-na=**Ø=iny***
deceive-AUX-PST=**3SG.S=3PL.O**
'He was fooling them.' (Ngi83a)

Much of the variation seems due to idiolect, or individual speaker preference for a particular morphophonemic strategy in one environment, although some speakers use a range of possible forms for the same complex. It is considered likely that at least some of the difficulties just described may result from the replacement of consistent and dominant forms with other allowable variations by infrequent users of the language from a fragmented linguistic community. The lack of variation in McKelson (1974) is in stark contrast to the multiplicity of forms in the 1990s Jarlmadangah corpus, and language shift is likely to play a role.

6.1.2.2 Clitic shifting

The two slots in the BP complex for pronominal clitics are generally ordered according to function, the first slot being filled by the subject and the second by an oblique2, oblique or object, as illustrated throughout §6.1.1. However, there are, as always, variations to this. As in many languages of the region, an imperfect person/number hierarchy operates to alter the usual order of certain clitics. This gives priority to some non-subject clitics for the first clitic slot in the BP complex. Typically this involves 1SG > 2SG/DU > 3DU/PL.

In Mangarla, this clitic reversal also helps to prevent some potentially ambiguous complexes where the accusative *-ny(-ya)* and oblique *-ngka* case-markers on many non-singular clitics might be mistaken as 1SG.O *=nya* and 2SG.OBL *=ngka* clitics if they were to follow subject clitics in the usual order. For example, the form *=palangka* would be ambiguous as 3DU.S > 2SG.OBL or as 3SG.S > 3DU.OBL without the clitic-shifting rule which places 2SG non-subject clitics before a 3.DU.S clitic, described below. Hence the first interpretation is impossible, and must be expressed as *=ngkapala*. Similarly, *=palanya*

can only be interpreted as *=Ø=palany-ya* [3SG.S=3.DU.O-EP] and never as **=pala=nya* [=3DU.S=1SG.O] which is subject to clitic-shifting and realised as *=nya=pala* [1SG.O=3DU.S] (see 6.102-103).

One major exception resists the influence of both grammatical and person hierarchies; the 2SG.O allomorph *=nga* always occurs in the first clitic slot of the complex (6.89). This may be due to an incomplete journey of apparent grammaticisation from the catalyst/epenthetic *nga*. Unusually, it only occurs with singular subjects, and these always precede any non-subject clitic, including the more widely accepted 2SG.O *=na*. However, the order is reversed with the *=nga* allomorph (6.89, see also §6.1.1.2). All ensuing references to 2SG.O in this section concern the preferred form *=na* unless specified.

6.89 *kakurtu nyaltu jutuk nga=**nga=rna** yu-ngarri wipirtijina*
finish PROX over CAT=**2SG.O=1SG.S** give-IPFV little.bit
'That's all. That's the end. I am just giving you a little bit.' (1D90)

First person singular non-subject precedes 2SG/DU subject

6.90 ***nga=nya=n** ka-ngku*
CAT=1SG.O=2SG.S take-FUT
'Will you take me?' (FK93)

6.91 *yaji-ngarri=**ja=n-nga** ngayu*
wait-IPFV=**1SG.OBL=2SG.S-EP** I
'You are waiting for me.' (FKsen8)

6.92 *milganyanyambala*
*mil-ka-nya=**nya=mpala***
eye-AUX-PST=**1SG.O=2DU.S**
'Did you two see me?' (McK:42)

6.93 *nyumpala-ju **nga=ja=npala** mil-ka-nya*
you2-ERG **CAT=1SG.OBL=2DU.S** eye-AUX-PST
'You two looked at me.' (3Sen63)

The order is variable with 2PL.S. McKelson (1978) lists *=nya=nyurru* [1SG.O=2PL.S] as also subject to clitic shifting in line with the person hierarchy 1>2. Certainly the

uninverted order, *=nyurru=nya* (2PL.S=1SG.O) might easily be confused with *=Ø=nyurruny-ya* (3SG.S=2PL.O-EP). However, the only sentence attested with these referents lacks the 1SG.O clitic, replacing it with a free pronoun (§6.2.1). The comment following the example is also by McKelson.

6.94 *milganyanyurru nayu*
*mil-ka-nya=**nyurru** ngayu*
eye-AUX-PST=**2PL.S** I.ABS
'Did you (pl) see me?'
'NOTE. the .. -nya .., is not put in. N̄ayu .., is added to mean ..me.'(McK:42)

Examples in both corpora consistently show that the regular grammatical order (subject precedes non-subject) is restored when the non-subject clitic is oblique.

6.95 ***nga=nyurru=ja** jurrungkul-ma-na*
CAT=2PL.S=1SG.OBL show-AUX-PST
'You lot showed it to me.' (Nya85)

Imperatives with non-singular subject number marking follow the same ordering rules, with the plural subject inducing regressive vowel harmony (6.96). See §6.1.1.1 for more examples.

6.96 *yaji-paji*
*yaji-pu-wa=**ja=yi***
wait-AUX-IMP=**1SG.OBL=PL.S**
'You lot wait for me.' (93sen18)

Third person subjects

The situation with third person subjects is complex and while combinations with 3SG.S are unproblematic there is a great deal of variation in expression of non-singular third person subjects with singular non-subject clitics.

As the overt third person singular subject *=na* is homophonous with one 2SG.O allomorph, it is impossible to determine their order when they co-occur (6.97). However, the basic grammatical order (subject precedes non-subject) is used when 3SG.S occurs with 2SG.OBL (6.98) and 1SG.O/OBL (6.99-100).

6.97 *waji-ma-nku=**na=na** kampaja-ju*
keep-AUX-FUT=**3SG.S>2SG.O** mother-ERG
'Mother looked after you.' (FKsen37)

6.98 *nganartu=**na=ngka** marra-narri*
what=**3SG.S=2SG.OBL** say-IPFV
'What is he saying to you?' (2sen167)

6.99 *kuwi-ngku wipirti-ju **nga=na=nya** parrirl-ma-nku*
meat-ERG small-ERG **CAT=3SG.S=1SG.O** alert-AUX-FUT
'The little bird woke me up.' (3Sen10)

6.100 *pani-ngku=**na=ja** marra-na*
s/he-ERG=**3SG.S=1SG.OBL** say-PST
'He said it to me.' (G53)

However, the two allomorphs of 3DU.S are treated differently. The order is inverted when the number only form *=pala* combines with first and second person singular non-subject clitics.

6.101 *kanti-narri=**ja=pala** Mayarrurta kaka ngijakura*
hit-IPFV=**1SG.OBL=3DU.S** placename uncle I.GEN
'Two people killed my uncle at Myroodah Station.' (2J30)

6.102 *dyianañanyabala*
*jiya-na **nga=nya=pala***
follow-PST **CAT=1SG.O=3DU.S**
'Those two followed me.' (McK:45)

6.103 *gangungabala*
*ka-nku=**ngka=pala***
carry-FUT=**2SG.OBL=3DU.S**
'Those two will carry it for you.' (McK:45)

McKelson (1978, 1974) shows two BP complexes with 3DU.S>2SG.O. Both conform to the inverted order, if *=na* is interpreted as the citation 2SG.O but as this is the same form

as the third person marker, both have alternate interpretations. employ *nga* in initial (CAT) or medial (EP) position. The second is ambiguous.

nga-na-pala [CAT=2SG.O=3DU.S] ?[2SG.O=3=DU.S]
na-nga-pala [2SG.O-EP=3DU.S] ?[3=2SG.O=DU.S]

When *=na* unambiguously expresses third person in combination with the dual marker to express 3DU.S, the two are always split and first and second person singular non-subject clitics are infixed between the person and number morphs. This occurs only in the Jarlmadangah corpus and it is possible that there is influence from Ngumpin languages, such as Walmajarri, where subject number always follows an overt non-subject clitic (Hudson 1978:60-76).

6.104 *kaka purlka-ka-na=**na=nya=pala** kaka-rra-ju panta-rra-ju*
uncle big-AUX-PST=**3=1SG.O=DU.S** uncle-DU-ERG MED-DU-ERG

ngijakura-rra-ju
I.GEN-DU-ERG
My two uncles raised me.' (2J27)

6.105 *nyaltu kakurtu=**na=na=pala** yinya*
PROX finish=**3=2SG.O=DU.S** give.PST
'This is what they two gave you.' (2D63)

6.106 *ngawayi mapu=**na=ngka=pala** ngurrja-na, kujarra-ju*
yes(NK) good=**3=2SG.OBL=DU.S** talk.about-PST two-ERG
'That's right, they told you well, those two.' (2D1)

The situation with 3PL.S is even more complex. In §6.1.1.1, I outlined McKelson's (1974) analysis that 3PL.S comprises distinct person/number markers. Thus, in combination with first and second person singular non-subject clitics, they are generally represented in that work with split person/number markers in the same way as the Jarlmadangah 3DU.S combinations.

6.107 *dyianani-nyi-yi*
*jiya-na=**ni=nya=yi***
follow-PST=**3PL=1SG.O=PL.S**
'They followed me.' (McK:45)

6.108 *manani-ŋgi-ya*
*ma-na=**ni=ngka=ya***
get-PST=**3PL=2SG.OBL=PL.S**
'They got it for you.' (McK:44)

6.109 *minin binyanidyiya*
*mininy-pinya=**ni=ja=ya***
language-AUX.PST=**3PL=1SG.OBL=PL.S**
'They talked to me.' (McK:44)

However, in the current analysis, these are simple forms with subject preceding non-subject. Progressive vowel harmony applies across clitic boundaries and optional *-ya* insertion produces slight variations. Reasons for preferring this analysis to McKelson's are outlined in §6.1.1.1. Foremost of these is the clear phonological conditioning of *-ya* (§2.3.5).

6.110 *warrkamja nganinyi waji-maninya*
*warrkam-ja **nga=ni=nya** waji-maninya*
work(K)-LOC **CAT=3PL.S=1SG.O** keep-AUX-NARPST
'They kept me working.' (FK49alt)

6.111 *yinya=ninyiya pani-yaru*
*yinya=**ni=nya-ya** pani-yaru*
give.PST=**3PL.S=1SG.O-EP** s/he-PL.ERG
'They gave it to me.' (2sen48)

6.112 *ngujartu nganingki ngurrja-na*
*ngujartu **nga=ni=ngka** ngurrja-na*
REC **CAT=3PL.S=2SG.OBL** talk.about-PST
'Remember what they told you about.' (1D47)

6.113 *nyuntu=nini* *karti-ma-nku*
*nyuntu=**ni=na*** *karti-ma-nku*
you.SG=**3PL.S=2SG.O** hold-AUX-FUT
'They are going to grab you.' (FK37alt)

McKelson (1978) also gives complex but unsplit 3PL.S forms. Only one, 1SG.O (and presumably the missing 1SG.OBL) is inverted. The regular order is subject > non-subject for 2SG.O/OBL forms, which also place an epenthetic element/catalyst in different positions:

nyi-niyi	[1SG.S=3PL.S]	(after regressive vowel assimilation)
niya-na	[3PL.S-2SG.O]	(*ni-ya=na* [3PL.S-EP=2SG.O] in this work)
niyi nga ngka	[3PL.S-EP=2SG.OBL]	
nga niyi ngka	[CAT=3PL.S=2SG.OBL]	

The inverted *nyi-niyi* [1SG.O-3PL.S] is unattested in a sentence and inversion appears to be optional with 3PL.S>2SG.O/OBL in both corpora. In (6.112-113), progressive vowel assimilation, induced by the subject clitic, alters the form of 2SG.O, while in (6.114-115), the subject clitic follows the object, and the citation form is preserved.

6.114 *janyja=**na=ni*** *karti-ma-nku*
today=**2SG.O=3PL.S** hold-AUX-FUT
'They will grab you now.' (FK36)

6.115 *ñandaŋgadyu* *ñananiyi* *wiranya* *nyundu*
ngantangkaju ***nga=na=niyi*** *wira-nya* *nyuntu*
what.SRC.?TOP **CAT=2SG.O=3PL.S** shoot-PST you.SG
'Why did they (pl.) hit you?' (McK:19)

6.116 *yardyinari-ŋgi-yi* *ñaru ñaru* ***or*** *yardyinariyi-ŋgi*
*yaji-ngarri=**ngka=yi*** *ngarrungaru* *yaji-ngarri=**yi=ngki***
wait-IPFV=**2SG.OBL=PL** person.PL.ERG wait-IPFV=**PL=2SG.OBL**
'They are waiting for you.' (McK:42)

Clitic shifting also affects first person plural exclusive clitics in complexes with third person non-singular clitics. It is possible that other first person clitics may also participate

in these changes, but only 1PL.EX is found in the corpora. Inversion is optional when 1PL.EX.O/OBL combine with third person non-singular subject clitics. Person/number splitting of 3DU.S does not occur (6.117), but inversion is optional when the simple *=pala* clitic is used with 1PL.EX.O/OBL (6.118-19)

6.117 *yaji-pu-nga=**napala=ngarningka** nganarni*
wait-AUX-PRES=**3DU.S=1PL.EX.OBL** we.all.EX
'Those two are waiting for all of us, (not you).' (3Sen27)

6.118 *a) pantangkaju=**ngarniny-ya=pala** waji-ma-na*
after.that=**1PL.EX.O-EP=3DU.S** keep-AUX-PST
'From then on, those two looked after us.' (FK9)

*b) ka-nya=**pala=ngarniny** wulu-ngku-pa kampaja-ju*
carry-PST=**3DU.S=1PLEX.O** father-ERG-and mother-ERG
'Mother and father took us.' (1J15)

6.119 *a) **ngarningka-nga-pala** ngarlka mil-pu-ngarrinya*
1PL.EX.OBL-EP=3DU.S desert.walnut eye-AUX-NARPST
'They two would clean the nuts for us.' (1J87)

*b) **nga=pala=ngarningka** ngarlka mil-pu-ngarrinya*
CAT=3DU.S=1PL.EX.OBL desert.walnut eye-AUX-NARPST
'They two would clean the nuts for us.' (1J87alt)

Once, in attempting to help the listener decipher the participants in an event, the speaker repeats the clause inverting 1PL.EX.S=3PL.O clitics (6.120), possibly to disambiguate the first, expected, form from *=Ø=ngarniny* [3SG.S=1PL.EX.O].

6.120 *ngurrpa-ngku=rtiny **nga=ngarni=iny**,*
ignorant-ERG=EXPECT **CAT=1PL.EX.S=3PL.O**

***niny-nga=ngarni** ngurrpangku*
3PL.O-EP=1PL.EX.S ignorant-ERG
'Of course, we did it to them in ignorance.' (1R20b-c)

6.2 Expression and omission of the BP complex

The BP complex is expressed in most clauses which contain a finite verb and always in simple sentence elicitations. If a sentence (defined in phonological and semantic terms) consists of more than one finite clause, a separate BP complex usually occurs in each clause (§13), except in reduced coordinations (§13.1.2) where the second BP complex is deleted. While simple sentences usually contain only one BP complex, there are no restrictions on expressing it more than once, especially within discourse, as also happens in, for example, Warlpiri (Laughren 1982:133) and Pintupi (Hansen and Hansen 1978:114).

A BP complex is not required in non-verbal clauses (§12.2), nor in dependent clauses which contain a non-finite verb, such as subordinate (§13.3) and cosubordinate constructions (§13.2.1). In these, arguments can be expressed by NPs, or be omitted as coreferential with those registered in the main clause or left unspecified. However, a BP complex, generally identical to that of the main clause, can be optionally expressed in most of these for pragmatic or stylistic reasons. The use of BPs in complex sentences is illustrated throughout §13. This section is concerned with the expression, omission (§6.2.1) or replication (§6.2.2) of BP complexes in simple clauses.

6.2.1 BP omissions

Null anaphora (§11.1) allows a well-formed sentence to omit NP arguments that are registered by BPs (6.118a), and, like most related languages in the region, Mangarla freely allows 'clitic-doubling' (Simpson 1991), where a NP, including free pronoun (underlined), and the BP which registers it are both expressed in one clause.

6.121 *pantarti ngarrungarti, <u>nyuntu</u>-ngku=**n**=inya yaji-ngarrinya*
MED.PL person.PL <u>you.SG</u>-ERG=**2SG.S**=3PL.OBL wait-NARPST
'You waited for them.' (FKsen23)

An entire BP complex (6.122-124), or individual clitics from within it (6.125), may be omitted in certain circumstances. Any BP can be omitted when a free pronoun is present in Yankunyatjarra (Goddard 1985:120) but in Mangarla, BPs are optional when an argument is expressed as any NP, not only a free pronoun.

6.122 *wurna ngalyarra-ju ka-ngarrinya*
move.off s/he&I-ERG carry-NARPST
'We carried her as we went along.' (1J150)

6.123 *kuwi jirrpa-jirrpa-tu-n*
meat jump~RDP-AUX-PRES
'The fish are jumping about.' (PSh106)

6.124 *ngayu-ngku ngurrja-n mininy-Ø nyuntu-Ø*
I-ERG talk.about-PRES language-ABS you.SG-DAT
'I'm telling you a story.' (1D50alt)

6.125 *ganyin ṉaniya malulu gu*
kanyi-n nga=ni-ya marlulu-ku
dance-PRES CAT=3PL.S-EP pre-initiate-DAT
'They are dancing for that *malulu* (initiation candidate).' (McK:146)

In Mangarla and related languages, the cross-referencing of NPs depends on both their semantic and syntactic nature. Tsunoda (1981:140*ff*) observed that in Jaru factors such as case, humanness (or animacy), and number all have an impact. In Nyangumarta, all human and animate arguments are registered as BPs, including those in the dative, locative and ablative. Inanimates are registered in subject function, optionally registered in object function and never registered in other functions (Sharp 2004:334). In Wangkajunga, compulsory registration extends to all datives in addition to subjects and objects, but registered accessories and sources are predominantly human (Jones 2011:140). Meakins and Nordlinger (2014:216) also find that in Bilinarra, human referents are registered in the BP complex in all functions, while animate non-human participants are frequently unregistered and inanimates are only registered sometimes in subject or dative adjunct functions. A quantative analysis of phonologically overt clitics with third person referents in Bilinarra and Gurindji (Meakins 2015) shows that they are expressed only 73% of the time and that their omission is more likely when the referent is not human, when a coreferent NP is present, and particularly when a non-human referent is in object function. These conditions are found to relate to topicality, and to speaker attitude toward the referent.

In Mangarla, pragmatic prominence is also given syntactic prominence; a participant which is significant in an event, or which is highly impacted is likely to be registered regardless of animacy. While salient participants frequently have animate/human referents, this is not always the case. Examples abound with pragmatically prominent and registered inanimate participants (6.36, 6.63, 6.126).

6.126 *jamayina-ja=la=**la*** *wanti*
axe-LOC=1PL.IN.S=**3SG.OBL** be.PRES
'We are stopping in the same place as the axe.' (MC11alt)

While first and second person BPs can be omitted (6.122, 6.124), BP omission is more common with third person referents, particularly those in oblique function with extended intransitive verbs, even when animate/human (6.125). Unlike core arguments, optional obliques such as *marluluku* (6.125) and *nyuntu* (6.124), can only be detected when expressed by an NP or BP. The presence of both is uncommon and the occurrence of either allows the other to be elided, without losing semantic information. Even so, due to the syncretion of absolutive and dative case markers, both Ø, the loss of a BP can result in the loss of syntactic information regarding the argument structure of the predicate.

Given that BP omission is optional in the presence of an NP, a speaker may register an oblique NP on one occasion and omit it on another, a trait also noted for Jaru (Tsunoda 1981:148) and Warlpiri, where Simpson (1991:219-224) proposes two lexical entries for verbs with dative participants, one with an argument which must be registered when definite and one with an adjunct which cannot be. Hence, the verb *parti* 'go' would have (at least) two lexical entries, one selecting an allative argument (6.127) and another which does not. In (6.128) the allative NP would be treated as an adjunct. During data collection at Jarlmadangah, many oblique clitics were omitted during uninterrupted speech but added during later transcription sessions. By proposing that an argument can be expressed by an NP, a BP or both, I suggest that *ngayukarti* is an optional oblique argument selected by the verb, but expressed by different methods.

6.127 *ñayu-gadi nadya* *badinyari*
*ngayu-karti=na=**ja*** *parti-nyarri*
I-ALL=3SG.S=1SG.OBL go-IPFV
'He is going to me.' (McK:17)

6.128 *ñayu-gadi nana badinyari*
ngayu-karti nga=na parti-nyarri
I-ALL CAT=3SG.S go-IPFV
'It is running toward me' (McK:52)

In the following examples, each argument in one clause is expressed differently: a clitic registers the subject in (6.129) while the object is expressed by a free pronoun, but the reverse occurs in (6.130).

6.129 *milganyanyurru nayu*
mil-ka-nya=nyurru ngayu
eye-AUX-PST=2PL.S I
'Did you (pl) see me?' (McK:42)

6.130 *nganyjurru-ju nga=ninya wanyja-na*
we.all.IN-ERG CAT=3PL.OBL leave-PST
'We left them.' (Nya53)

This mix-and-match method allows non-subject clitics, particularly reflexives, to attach to free subject pronouns. Reflexive/reciprocal clitics are only attached to pronouns, free or bound, and never to non-pronominal NPs. Free pronouns which host the RR clitic often omit ergative marking (§4.3.2.1, §5.1), as in (6.132), which might, without pragmatic input, also be understood as 'I cut you two'.

6.131 *paniyaru-ya=rna paja-n kunyarr-ju*
they.ERG-EP=RR bite-PRES dog-ERG
'Those dogs there are biting each other.' (2R42)

6.132 *nyumpala=rna kati-pinya*
you2=RR cut-AUX.PST
'You two cut each other.' (3Sen82)

6.2.2 Multiple BP complexes in a simple sentence

The BP complex is sometimes repeated in a sentence. The reasons for this may be stylistic or to ensure the hearer is tracking the referents in the action, particularly when one

participant changes function or another is added. The second BP complex is often added as an afterthought for emphasis or clarification.

6.133 *jani-ma-na=**na*** *kuwi pani-kura, pani-ngku* ***nga=na=rnangka***
cook-AUX-PST=**3SG.S** meat s/he-GEN s/he-ERG **CAT=3SG.S=RROBL**
'He cooked his meat; he did it for himself.' (G104)

6.134 *yalparra=**rna=nyurruny*** *ningarra=lparri yinjil-ma-nku*
again=**1SG.S=2PL.O** truth=ASSERT release-AUX-FUT

nga=ngarni-ya=nyurrungka *nyaltu janga~janga*
CAT=1PL.EX.S-EP=2PL.OBL PROX chain~RDP
'After that I promise you, we will take these chains off you.' (Ngi64)

Often BPs are repeated after the verb, perhaps due to interference from another Marrngu language where the verb is the usual locus of attachment.

6.135 *warlu-ngku* ***nga=na=nya*** *paya-pinya=**na=nya***
fire-ERG **CAT=3SG.S=1SG.O** burn-AUX.PST=**3SG.S=1SG.O**
'The fire burnt me.' (G108)

6.136 *ngayu-ngku=**rna*** *wulyu-yu-n-nga=**rna*** *kampi*
I-ERG=**1SG.S** good-AUX-PRES-EP=**1SG.S** egg
'I like eggs.' (A22)

6.3 Attachment

BPs are, for the most part, clitics which are phonologically dependent on the previous element (exceptions are discussed in §6.4). The host and position of the BP complex distinguishes Mangarla from the other two languages in the Marrngu subgroup. In Nyangumarta and Karajarri, BPs follow the verb, regardless of its position within the clause (McKelson 1974, Sharp 2004). Mangarla, however, patterns like languages to the east (*e.g.* northern Western Desert and Ngumpin-Yapa subgroups) in typically placing the BP complex after the first constituent of the clause. This can be from any part of speech, with roughly equal distribution (±33%) between the two major word classes, nominal and verb, and smaller numbers (±8%) from other word classes. The rest are

attached to the semantically empty particle called a 'catalyst' (after Capell 1972) which also generally follows the first element (§6.3.2). Variations to the typical clausal position and the discourse factors which influence them are examined in §6.4.

6.3.1 All word classes

When encliticised to a word, BPs follow all derivational and inflectional morphology, case and number on NPs (6.140, 6.144), tense, aspect and mood on verbs. They also follow all other clitics (6.139), with the exception of the anticipatory clitic (6.149). Examples throughout this work and below show that they can attach to:

a) particles including negative, interrogative and modal particles (see also §6.4):

6.137 *wajarri=**rna*** *marra-ntama*
NEG=**1SG.S** say-PSTIRR
'I didn't say (that).' (93sen31)

6.138 *wayi=**n-nga=yarrangka*** *ma-na* *kuwi* *ngalyarra-kura*
Q=**2SG.S-EP=1DU.EX.OBL** get-PST meat s/he&I-GEN
'Did you get meat for us two.' (3Sen19)

6.139 *ningarra=lku=**na*** *kapa-rrayi* *ngapa*
truth=RESTR=**3SG.S** sit-NPIRR water
'Rain might still come.' (3Sen42)

b) nominals (6.126) including proper names (6.140), quantifiers (6.141), spatial and temporal locators (6.114, 6.134), and action/manner nominals (6.142):

6.140 *Annie-ja=**rna=la*** *mininy-pu-ngku*
personal.name-LOC=**1SG.S=3SG.OBL** language-AUX-FUT
'I will talk to Annie.' (93sen69)

6.141 *kujarra=**ni*** *kapa-narri* *kujarra=**pala*** *ya-narrinya-angka*[23]
two=**3PL.S** sit-IPFV two=**3DU.S** go-NARPST-SRC
'They came back and stayed, the two who had left.' (2J120)

6.142 *wurna=**ngarni*** *kanka-ngu=lpiny* *jarri-nyarrinya* *kanka-ngu*
move.off=**1PL.EX.S** top-ABL=first INCH-NARPST top-ABL

warnku-ngka
stone-LOC
'We moved off first from up on top of the hill.' (1J169)

c) pronominals including personal pronouns (6.131-132, 6.136), demonstratives (6.143-144), and interrogative pronouns (6.98):

6.143 *nyaltu=**na=ngka*** *yarrkal* *jarrampa* *kurna-rra*
PROX=**3SG.S=2SGO** hunting cherrabin ingest-IMP/HAB
'Fish eat cherrabin for bait.' (2sen42)
(*lit*. 'This one eats cherrabin for you when you're fishing.')

6.144 *yakarnartu-karra=**rna*** *kanyi-nku*
thus-MAN=**1SG.S** mix-FUT
'I'll mix it like this.' (HTD15alt)

d) preverbs (in 'loose' compounds (§7.2.3)):

6.145 *pirriya=**na*** *jarri*
cold=**3SG.S** INCH.PRES
'It is getting cold.' (2sen94)

6.146 *gui* *dyurungul* *nanya* *manarinya*
kuwi *jurrungkul=**na=nya*** *ma-narrinya*
meat show=**3SG.S=1SG.O** AUX-NARPST
'He showed me how to kill game.' (McK:PS14)

---

[23] Occasionally third person dual referents are registered by a plural clitic 3PL.S as here in the first clause, just as NPs unspecified for number and registered by a singular clitic can have plural referents.

e) inflecting verbs:

6.147 *yaji-pu-ngarrinya=**rna=mpalangka***
wait-AUX-NARPST=**1SG.S=2DU.OBL**
'I was waiting for you two.' (3Sen71)

In imperative and aversive/admonitive constructions, BPs almost always attach to verbs.

6.148 *ma-rra=**ja*** *ngijakura* *kuwi*
get-IMP=**1SG.OBL** I.GEN meat
'Give me meat.' (3Sen20)

6.149 *wajarri* *ya-rra=**n**=kulu* *kuwarniya=pa*
NEG go-IMP=**2SG.S**=ANTIC freshwater.crocodile=ASSERT

wanti=Ø=kulu
be.IMP=3SG.S=ANTIC
'Don't go! There might be a crocodile there.' (A52-53)

Because they are not required in non-finite constructions, BPs are not found encliticised to nominalised verbs, with or without a complementiser.

6.3.2 The catalyst (CAT)

On average, around 25% of clauses which employ a BP complex attach it to the catalyst. However, this number varies for individual speakers, some using it rarely and others having much higher rates of catalyst usage, which may be related to dialect. 'One informant said, the bush Mangala [*panpartupanpartu*], favours the use of *nga*, as a catalyst, but the river Mangala does not' (McKelson 1974:36). Its use is much higher in elicited sentences (around 35%) than in natural discourse.

In employing a 'catalyst' as a clitic base, Mangarla resembles many Ngumpin-Yapa languages to the east (Hale 1973, Hudson 1978, Tsunoda 1981, McConvell 1980, 1996) where it is also referred to as the 'modal root' or 'auxiliary'.

Mangarla's catalyst is semantically null. It has a single form, *nga=*. It can occur more than once in a BP complex (6.154) but is only considered the 'catalyst' when it occurs as

the first element of the BP complex and can take word stress (although it doesn't always do so). Elsewhere, it is always unstressed and phonologically motivated and thus referred to as epenthetic. The catalyst almost certainly transitioned from the epenthetic element (*cf.* McConvell 1996) which predominantly occurs in the BP complex where the potential for epenthesis-triggering consonant clusters is high. The catalyst appears to be obligatory if such clusters would otherwise occur.

6.150 *panjurn* ***nga****=na* *karntu*
wood **CAT**=3SG.S climb.FUT
'He will climb the tree.' (HTG26)

6.151 *jani-ma-n* ***nga****=na*
cook-AUX-PRES **CAT**=3SG.S
'It (fire) cooks it.' (PSh66)

However, this phonological conditioning is not present in most instances of catalyst use when its use is entirely optional.

6.152 *mulnyi-ngka* ***nga****=rna* *purlka-arri-nya* *ngayu*
soil-LOC **CAT**=1SG.S big-INCH-PST I
'I grew up (sleeping) on the ground.' (1R63)

6.153 *mulnyi-ngka=rna* *purlka-arri-nya*
soil-LOC=1SG.S big-INCH-PST
'I grew up (sleeping) on the ground.' (1R64)

Prosody and clausal stress patterns are also thought to be motivating factors for its use. However, in the absence of a detailed prosodic analysis, this remains speculation. Its ability to take word stress means that the BP complex with a catalyst base can occur after an intonation break or as the first element of the clause (§6.4.2).

The catalyst can follow all the word classes shown in the previous section to host clitics directly. It is used in clauses of all types and with verbs in all inflectional categories, although rarely with the imperative.

a) imperative mood:

6.154 *ya-rra* ***nga****=n-nga=la*
go-IMP **CAT**=2SG.S-EP=3SG.OBL
'Go to him.' (93sen64)

b) interrogative mood:

6.155 *wayi* ***nga****=ni* *ya-nku* *pantarti*
Q **CAT**=3PL.S go-FUT MED.PL
'Will those ones go?' (A34)

c) negative/irrealis mood:

6.156 *wajarri* ***nga****=ni* *mil-ka-ngkama*
NEG **CAT**=3PL.S eye-AUX-PSTIRR
'They didn't see it' (MW:nbkA67)

6.157 *ngapa ningarra=lku=rtiny* ***nga****=na* *pungkayi*
water truth=RESTR=EXPECT **CAT**=3SG.S fall.NPIRR
'(Sometimes) rain doesn't fall.' (MW:nbkA70)

d) indicative mood:

6.158 *purlu* ***nga****=ngarni* *wani-nya*
settled **CAT**=1PL.EX.S be-PST
'We didn't move around.' (*lit.* 'We stayed.') (H48)

However, the catalyst appears to be incompatible with the epistemic modal *=lpa(arri/a)*, which led to my earlier analysis (1994) in an unpublished paper with limited circulation that this second position clitic was another semantically null catalyst, a notion reinforced by examples like (6.159), where the speaker replaces the catalyst in (6.158) with *=lpa* and translates the clause identically. The alternative form in (6.160) suggests that not only are both particles optional but they are also semantically null.

6.159 *purlu=**lpa**=ngarni wani-nya*
settled=**ASSERT**=1PL.EX.S be-PST
'We didn't move around.' (H47)

6.160 *purlu=ngarni wani-nya*
settled=1PLEX.S be-PST
'We didn't move around.' (H49)

However, supplementary examples with contrasting translations show that the catalyst does not have the same semantic value as *=lpa(rra)*, which is deemed to assert a speaker's belief in the truth of the proposition, a bit like the English 'I reckon' and, amongst other things, often entails a logical connection with some other event. It also has a role in counterfactual statements with the negative particle (§8.6.1), and although sometimes difficult to characterise, it is clearly not a simple clitic base that alternates with *nga=*. The speaker would not allow the same translation for the next two exmples.

6.161 *pantu=**lpa**=na wanyja-na*
MED=**ASSERT**=3SG.S leave-PST
'So, that's why she left him.' (H52)

6.162 *pantu **nga**=na wanyja-na*
MED **CAT**=3SG.S leave-PST
'She left that one.'
*'So, that's why she left him.' (H53)

Each form can occur without BP clitics attached but unlike the epenthetic *nga*, *=lpa(rra)* is not phonologically motivated in this context. In (6.163), *=lpa* attaches to the inflected verb of the second clause and does not host the BPs which are attached to the preverb in this loose compound.

6.163 *yakurr-i-ka-na=na=nya muku=rna jarri-nya=**lpa***
no.good-EP-AUX-PST=3SG.S=1SG.O sick=1SG.S INCH-PST=**ASSERT**
'He made me sick by singing.' (A71)
(*lit.* 'He did bad things to me, so I became sick.')

Therefore, contrary to my claims in 1994, *=lpa(rri/a)* is not interchangeable with *nga* and is not a simple catalyst, despite both occupying the same clausal position and hosting the BP clitics. Their general inability to co-occur (except in anticipatory constructions where *nga* is fixed within the verbal construction (*e.g.* (6.180)) may indicate that *=lpa(rri/a)* is on the path to becoming a clitic host with semantic value, like the auxiliaries of languages to the east (McConvell 1996:305-307).

6.4 Position within the clause

The BP complex (with or without the catalyst) follows the first clausal element over 80% of the time in a sample of 380 clauses containing a BP complex from both narrative and elicited texts. Of the remaining 20%, it occurs as the first element in around 2% of clauses and in third, or occasionally fourth, position in 18%, although again, figures vary for individual speakers. This section examines the placement of the BP complex within the clause and the pragmatic factors which influence this.

6.4.1 Post-initial position

Most examples given so far in this chapter show BPs encliticised to clause-initial elements or to a second position catalyst. Clause-initial elements can be complex constituents, such as multi-element (6.164) or conjoined NPs (6.165) or complex verbs (6.166).

6.164 *[ngapa wajarri-artu]=**pala** kurta-na*
[water NEG-COM]=**3DU.S** perish-PST
'Those two perished without water.' (H13)

6.165 *[wulu-pa kampaja]=**ngarni=jinya** ngaja-nyarrinya*
[father-and mother]=**1PL.EX.S=3PL.OBL** cry-NARPST
'We were crying for our father and mother.' (1M35)

6.166 *[ra-waji-ma-nu-ng-karra-ka-ngarrinya]=**pala** panartu mulnyi*
[clearing-keep-AUX-INF-EP-MAN-AUX-NARPST]=**3DU.S** MED soil
'They went along shaping that country.' (Nya47)

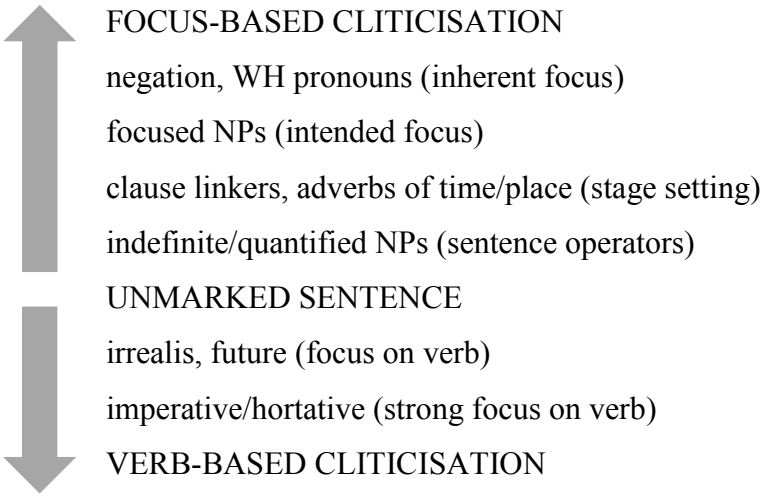
Second position (2P) is widely acknowledged as the locus of grammatical information, particularly encliticised information such as the pronominal clitics (and any accompanying modal/aspectual information) in many Australian languages (Mushin

2006). Known as Wackernagel's law, the preference is shared by many of the world's languages (Hale 1973:340, Cysouw 2003). However, as a 'split-Wackernagel' system (McConvell 1996), clitics in Mangarla are also attracted to particular word classes in certain constructions, either with or without the catalyst, and can occur in positions other than 2P. Verbal attachment is the norm in simple imperatives (§8.3.7) and in anticipatory constructions (§8.7) where the encliticised verb can occur in any clausal position.

Accounts of encliticisation emphasise the importance of pragmatic factors and there is general consensus about the discourse salience of clause-initial position, particularly in free word order languages (Blake 1983, Mithun 1987, Swartz 1991, McConvell 1996, Austin 2001, Laughren 2002, Cysouw 2003, Simpson 2007, Simpson and Mushin 2008). Cysouw (2003) finds that pronominal clitics, which are highly topical (old, given or expected), tend to be attracted to elements which are highly focal (new, unexpected).

Figure 6.1 shows the type of elements that Cysouw (2003) finds attract clitics cross-linguistically in hierarchical order. In languages where verbal clicitisation is the norm, some verbal types are more highly focussed, while languages which primarily use non-verbal clicitisation choose elements which have semantically 'inherent' focus before those to which the speaker wishes to draw attention through 'intended' focus. These comprise a range of pragmatically marked information types that are 'expected to update or add to the hearer's knowledge state. This information may be "new" to the hearer and to the discourse (so-called "new" information), or it may simply be "prominent" (Choi 1999)' (Mushin 2006:292).

Figure 6.1 Hierarchy of cliticisation (adapted from Cysouw 2003)



With no identified general use discourse markers like focus or topic, prominence within the clause is the primary means of drawing attention to information in Mangarla. Cysouw's hierarchy accurately predicts the elements attracted to clause-initial position in Mangarla and which also attract the BP complex. This is shown in relevant sections of this work (*e.g.* interrogatives §5.2, negation §8.6 *etc*.). The BP complex follows the canonical focus categories of question words (inherent focus) and answers to questions (intended focus) in (6.167a-b). In (6.168), they follow scene-setting temporals in contrastive focus.

6.167 *a) nyajangu kartiyarti*
how.many child.PL
'How many babies are there?' (PSh57)

b) kujarra kartiyarra, wajarri, ***murrkun*** *nga=ni-ya wanti*
two child.PL NEG **three** CAT=3PL.S-EP be.PRES
'Two babies, no, there are three.' (PSh58)

6.168 *yulburu niyala ñiñara gana wibidi dya,*
yulpurru*=ni-ya=la ningarra-ka-na wipirti-ja*
before=3PL.S-EP=3SG.OBL truth-AUX-PST small-LOC

dyandya niyala ñiñara gana Rai yanga mardya banu
janyja*=ni-ya=la ningarra-ka-na rayi-ya-ngka marrja panu*
today=3PL.S-EP=3SG.OBL truth-AUX-PST spirit-EP-LOC strong many
'Before their faith was not strong: now it was strong.' (McK:RT)
(*lit.* 'Before, they believed in a little one, today they believe in a very powerful spirit.')

Many of the elements in Figure 6.1 are classified in this work as sentence particles (§3.5). Others from the same category also share a preference for first position, including epistemic modals (6.173) and certain adverbials. While these and other focal non-verbal elements are generally prioritised as first position clitic hosts, strongly focal verbal constructions outrank them for encliticisation. While most inflected verbs optionally precede the BP complex, those based on the imperative inflection (imperative/hortative (§8.3.7), dehortative/admonitive and potential/aversive moods (§8.7)), are obligatory

hosts, regardless of their position in the clause or the presence of an inherently focal element such as the negative particle.

6.169 *kuwi* ***yu-wa=nya*** *ngayu*
meat **give-IMP=1SG.O** I
'Give me meat.' (H9)

6.170 *wajarri* ***parti=la=kulu*** *kaniny-jurra*
NEG **go.IMP=1PL.IN.S=ANTIC** below-down
'We can't go down there.' (FK87)

Focal non-verbal elements shown in Figure 6.1 may also occur later in the clause, drawing the BP complex with them.

6.171 *ngayu* ***wajarri=rna*** *partu*
I **NEG=1SG.S** go.FUT
'I won't go.' (FKsen49)

6.172 *nyuntu-ngku* ***ngantu*** ***nga=n*** *warri-n*
you.SG-ERG **what** **CAT=2SG.S** seek-PRES
'What are you looking for?' (93sen28)

6.173 *kamurra* ***ngarrungu=na*** *paja-nku* *kamurra* ***kuwi=na*** *paja-nku*
uncertain **person=3SG.S** bite-FUT uncertain **meat=3SG.S** bite-FUT
'Maybe it will bite a man or maybe it will bite an animal.' (PSan57)

In an effort to reconcile previous accounts of information structure in Warlpiri (*e.g.* Swartz 1991, Hale 1973, 1983), and account for the ability of more than one constituent to precede the BP complex, Simpson (2007) uses the two parameters of 'new' and 'prominent' (following Choi 1999) to categorise information. This then allows for two kinds of focus (new information) and two kinds of topic (old information), each ±prominent. These are relative notions which occupy spans within a clause in respect to both the verb, and the auxiliary (Mangarla's BP complex), which occupies a transitional space between more and relatively less prominent information. Older, topical information which is prominent precedes newer information and an element which is both prominent and new, such as a WH interrogative, imperative verb or contrastive 'topic', will have the

BP complex attached to it. This allows multiple elements to occur before the BPs and for their discourse status to vary. Figure 6.2 gives a representation of information packaging within the clause.

Figure 6.2 Prominence and newness in the clause (adapted from Simpson 2007:420)

prominent		**transition**	**less prominent**		**not specified**
less new	**new**		**new**		
TOPIC	CONTRAST/ FOCUS				
XP	V or YP	BP complex	ZP	V	WP

There is no obligation to fill either topic or focus slots. When no prominent elements occur and it has nothing else to attach to, the BP complex follows the verb (or in Mangarla it can occur in first position under certain conditions - §6.4.2). Information occupying one slot only means that the BP complex will occur in 2P, its preferred position, following either topic (6.174c-d) or focus (6.167-168). Information filling both slots pushes BPs further to the right, accounting for the clause-initial placement of the topic NPs before the focal elements as in (6.171-172).

The following text excerpt shows the BP complex attached to verbs in initial position in (6.174a-b), presumably by default in the first clause and in focus in the second, since the event it describes creates a turning point and introduces the new, but not yet prominent, *warlu*. 'Fire' becomes a prominent topic which hosts the BP complex in (6.174c-d). What follows the BP complex is less prominent, old information in (6.174c) or new but not particularly newsworthy in (6.174d), as permitted by the schema in Figure 6.2.

6.174 *a) pina-ma-narrinya=**ni***
hear-AUX-NARPST=**3PL.S**
'They heard.'

*b) mil-ka-ngarrinya=**ni** warlu*
eye-AUX-NARPST=**3PL.S** fire
'They saw fires.'

c) *warlu=**ni*** *mil-ka-ngarrinya, pantu pulijiman-aru, pulijpuyi-ju*
fire=**3PL.S** eye-AUX-NARPST MED policeman-PL-ERG policeboy-ERG
'They saw fires, those policemen and policeboys.'

d) *ngujartu warlu **nga=ni-ya=rnangka** jaya-narrinya pirriya,*
REC-COM fire **CAT=3PL.S-EP-RROBL** burn-NARPST cold
'They lit fires you know, for themselves because they were cold.'
(FKNgi86-89)

The schema in Figure 6.2 also permits 'AUX straddling' (Laughren 2000), where complex constituents, such as NPs and complex verbs, are split around the BP complex, giving the first element more prominence than the second, despite both being new (6.145-146, 6.175-176). Both topic and focus slots are filled in (6.176) with the preverbal component in focus, and a scene-setting adverbial.

6.175 *wanyjirra-artu=**na** yaku ya-na*
other-COM=**3SG.S** husband go-PST
'She went with another husband.' (1M6)

6.176 *kurlila jararr-nga=**na**-arri-nya yulu paniyarti-kura*
south empty-EP=**3SG.S**-INCH-PST ground they-GEN
'In the south, their country became empty.' (1D65)

While the template in Figure 6.2 can explain most sentences in the corpora, with one or two elements preceding the BP complex, other, yet undetermined, factors also influence its placement in other positions. Simpson (2007:419) also suggests for Warlpiri that there is sometimes a need to look beyond notions of newness and prominence in placing an element before the BP complex. She argues that information structure constitutes a distinct layer of representation to phrase structure and that some discourse functions cannot be restricted to a single slot in phrase structure. In both Warlpiri (Laughren 2002, Simpson 2007) and Mangarla, the placement of the negative particle and some propositional particles can be problematic.

I showed in §6.3.1 how, as inherently focal elements, these particles typically occur in first position (6.137-139). I also showed above how they could be displaced from this position and move rightward, drawing the clitics with them, to fill third position (6.177-

178). The next two examples illustrate how this order can be reversed, with a particle occurring clause-initially with another prominent element following it, and the BP complex placed after that.

6.177 *wajarri nyuntu=**na** ya-ntama*
NEG you.SG=**2SG.S** go-PSTIRR
'You didn't go.' (2sen177)

6.178 *kamurra warrimpa **nga=rna** purta*
uncertain by&by **CAT=1SG.S** come.FUT
'Maybe I will come later.' (93sen44)

The BP complex can also move to third position when attached to a verbal construction such as the anticipatory construction (6.170) or loosely bound 'AUX-straddling' inchoatives (6.176). However, it can also be pushed further into the clause in these constructions in fourth position. In all cases, the second of three pre-BP complex elements is a sentence particle (negative, adverbial or epistemic modals). Mangarla's use of the negative particle with imperative verbs in anticipatory constructions demands the order NEG VERB BP, which is blocked in Warlpiri (Simpson 2007:414).

6.179 *ngayu wajarri parti=**rna**=kulu*
I NEG go.IMP=**1SG.S**=ANTIC
'I won't go.' (FKsen76)

6.180 *nguju=lpa tarrp ka-wa=**nga=na**=kulu*
REC=ASSERT forever take-IMP=**2SG.O=3SG.S**=ANTIC
'You know, it might take you for good.' (FK90)

6.181 *panartarti-karti ningarra=lku=rtiny tarlu=**nyurru** jarri*
MED.PL-ALL true=RESTR=EXPECT shy=**2PL.S** INCH.PRES
'You lot are too shy to go to them.' (MW:nbkA60)

The position of sentence particles between the first element and the highly focal verb, supports Laughren's (2002) suggestion that such elements occupy a distinct, functional, space between topic and focus positions. However, Mangarla's negative particle and epistemic modals can also function with restricted scope as modifiers within NPs (§9.3.2-

6.182) as well as having clausal scope. This is a complicating factor that necessitates further investigation into the effects of the position of these elements in the clause and their interaction with verbal inflections.

6.182 *kila-ngu, wajarri marnpa=**rna** parti-nya*
south-ABL NEG close=**1SG.S** go-PST
'I came from the south, not nearby.' (1R65)

6.4.2 Clause-initial position

A small number of BP complexes occupy the first position of a phonologically independent clause, where they take stress on the first syllable. For this to occur, the complex must meet the criteria of wordhood (at least two morae), hence many contain the catalyst.

6.183 ***nga=pala** wanti*
CAT=3DU.S be.PRES
'Those two are here.' (MC6)

6.184 ***nga=la** wani-nyarri purnkurr-ja*
CAT=1PL.IN.S be-IPFV shade-LOC
'We are in the shade.' (93sen21)

Multisyllabic non-singular clitics can occur in the same context without a catalyst.

6.185 ***ngarni** wani-nya*
1PL.EX.S be-PST
'We were there.' (FK70alt)

6.186 ***yinyala** jani-ma-na kartiyarti nyalartarti*
3PL.OBL2 cook-AUX-PST child.PL PROX.PL
'She cooked it for these children.' (PSh160)

Clause-initial BP complexes can also be explained by pragmatic factors. Most occur within ongoing discourse where clauses typically follow each other closely in meaning. The registered participants are always topical and the clause tends to summarise or restate previous content, sometimes adding information.

6.187 *nga=ni nguwi-na pulijiman-arti,*
CAT=3PL.S return-PST policeman(E)-PL

nga=ni=ngarningkala *nganarni nguwi-na*
CAT=3PL.S=1PLEX.OBL2 we.all.EX.DAT return-PST
'The policemen returned. They came back for us.' (1M79-80alt)

6.188 *Mangarla nga=ni mininy-pu-nga kujarra mininy Nyikina*
Mangarla CAT=3PL.S language-AUX-PRES two language Nyikina

panartaru, ***nga=ni*** *pina-ma-n-nga*
MED.PL.ERG **CAT=3PL.S** understand-AUX-PRES-EP
'They speak two languages, Mangarla and Nyikina; they understand it.'
(1D27-28)

BP-initial clauses often follow preposed elements or clauses which lack a BP complex, such as non-verbal clauses. The next example follows the speaker's reporting of the location of his mother's death. When switching the topic to his father, he preposes the contrastive topic before the non-verbal clause identifying the location of his father's burial. The BP complex-initial clause states overtly the event which is already inferred from the context.

6.189 *ngijakura wulu, ngijakura wulu Niyarramal-ta,*
I.GEN father I.GEN father placename-LOC

nga=na *nyarlu-yarri-nya, nyarlu*
CAT=3SG.S dead-INCH-PST dead
'My father, my father is at Nerrima. He died (there), (he's) dead.' (1R85-86)

6.190 *pani wanjirra,* ***nga=ni-ya*** *manyja-pinya, Mayarrurta-karti*
s/he other **CAT=3PL.S-EP** invite-AUX.PST placename-ALL
'He was next; they invited him to Myroodah.' (Ngi77)

A BP-initial main clause often follows a finite subordinate clause in a complex sentence (§13.3.3.2, §13.4.1). The finite perfect clause in (6.191) shares the clause-initial BP complex of the main clause and although the clausal complement in (6.192) registers its own participants, the main clause which follows it commences with an unattached BP

complex. In both instances, an alternative analysis may place the main BP complex in the more common position of 2P, with the subordinate clause functioning as the first element of the sentence.

6.191 *mininy nyalartu nila-arru-yangka* ***nga=na=ngka***
language PROX clever-INCH.FUT-SRC **CAT=3SG.S=2SG.OBL**

junga-ka-nku
straight-AUX-FUT
'After learning this story, she will straighten it out for you.' (2D14)

6.192 *kanti-rra=nyurru=ngarniny-ya=kulu yala-ngka,* ***ngarni*** *marra-ninya*
hit-IMP=2PL.S=1PL.EX.O-EP=ANTIC DIST-LOC **1PL.EX.S** say-NARPST
'"You might beat us over there," we said.' (1M69)

This section has shown that Mangarla tends to embody a split Wackernagle system, with the BP complex showing strong preference for second clausal-position (around 80% of tokens), but attaches to the verb in certain constructions regardless of its position. Pragmatics plays an important role in the placement of the BP complex, which is attracted to highly focal elements. These tend to occur in clause-initial position, but can also follow prominent topical information, thus pushing the BP complex further into the clause (±18% of tokens). In about 2% of clauses with a BP complex, it occurs in initial position, also explained by pragmatics. Clause-initial BP complexes tend to occur in continuous discourse, where participants, sometimes pre-posed, and even events are already known.

7 Verbs and their derivation

This chapter introduces the verbal word (§7.1) and its derivation. Simple verb roots occur alongside morphologically complex verbs (§7.2), formed by compounding either a simple verb or a bound verbal root, called here an auxiliary (§7.2.1), with a preverbal element (§7.2.2). Like many other inflecting auxiliaries, the inchoative functions both as a free verb and as a bound verbaliser (§7.3). Auxiliary reduction allows verbal inflections to attach directly to some preverbs (§7.4) and reduplication can affect both simple and complex verbs (§7.5).

7.1 Overview

In the corpus of spontaneous texts collected in the early 1990s, around 70 monomorphemic verbs occur while McKelson (1974) records approximately 90 through elicitation. These numbers are potentially inflated by loans from the mixed language communities where collection occurred, and by lexicalised compounds treated as simple verbs. A conservative figure of 83 is used for statistical use in this work (see Table 8.2 in §8.1 which splits verbs according to conjugation class and valency, and also §11.3 which details argument structure). While this number is greater than in the Ngumpin languages to the east, which have an average of around 40 (Hudson p.c. 1993), it is much lower than the sample of 197 described for Nyangumarta (Sharp 2004:161) and is comparable to the number of inflecting verbs found among the northern Western Desert languages of Yulparija (83), Kukaja (115) and Manyjiljarra (116) (Jones 2011:180). However, Mangarla's verbal inventory is greatly expanded by the use of complex verbs which consist of a preverbal element compounded with one of thirteen monosyllabic inflecting verb roots called here an AUXiliary.

The formation of new verbs is not generally distinguished as a separate process. Rather, the combination of a preverbal element and an inflecting verbal auxiliary is seen as a productive process which has given the language frozen forms as well as the ability to coin new compound verbs. Although an inchoative suffix (identified by morphophonemic changes) is used to derive intransitive verb roots from nominals, the inchoative also functions as an independent verb (§7.3). There is no causative suffix and no single AUX is used as a causative. Many auxiliary verbs imply causation when combined with particular preverbs, and, although the regionally widespread auxiliary *marra* 'get'

(§7.2.1.2) often occurs in this function, non-verbal elements are most frequently coupled with the AUX *karra* 'do', which also functions as an independent verb (§7.2.1.1). The template for the verbal word is given in (7.1).

7.1 *(preverb)(-preverb)-root-TAM inflections(=clitics)*

The minimal verbal word consists of a root and inflections. Tense, aspect and mood (TAM) inflections occur in different combinations. Only two can occur in combination: imperfective aspect can precede past and future tenses or past irrealis mood, and non-past irrealis is added to the imperative inflection. Verbal inflections are described in §8.

Up to two preverbs can occur before the root. Some preverbal elements function exclusively as preverbs while others are classified as nominals, and may bear nominal inflections. The nexus between a preverbal element and the root sometimes varies from the 'close' type shown in (7.1). A 'loose' nexus allows other elements to intervene (§7.2.3). Optional reduplication (§7.5) is not shown in (7.1) but affects the initial element of both simple and complex verbs (providing they contain only one preverb - §7.2.2.1).

While clitics can attach to words of any class, some have specific links to verbs with particular inflections: the 'expectation' clitic on future tense verbs produces intentives and desideratives (§8.3.5), the directional clitics *=rni* 'hither' and *=rra* 'away' are found most commonly on imperative verbs (§8.3.7), negative particles (§8.6) select irrealis inflections for most speakers, and the anticipatory modal generally follows BP clitics attached to the imperative verb in admonitive/aversive constructions, but is found with similar meanings in other inflections (§8.7).

Several verbs (*wanti* 'be/stay', *karri* 'stand/wait', *kaparra* 'come/sit' and the free form inchoative *jarri* 'be/become') may be used as optional copulas (§12.1).[24] However, as Mangarla allows verbless clauses, they are necessary only when TAM marking is required or if occurring with a dative complement denoting an object of desire.

[24] Throughout this chapter, unless otherwise indicated, verbs are given in the imperative to reflect conjugation classes. An uninflected stem is shown ending with a hyphen, as in *ka-* 'carry'.

Both simple and complex verbs convey a range of activities, motions, physical positions, sensory experiences, utterances and processes. Morphological structure is not linked to valency; the number of arguments selected by each verb and the case assigned to them is specified in the lexicon and is examined in §11.3.

One striking fact about Mangarla's lexicon is the large number of apparently synonymous verbs. Often, a compound alternates with a simple stem. Most of the simple verbs are found in the Western Desert languages spoken to the south and often date back to proto-Pama-Nyungan forms (*e.g*. *nyawa* 'see', *yuwa* 'give'). Sometimes compounds are semantically transparent, as in *mil-kawa* [eye-carry] 'see' and sometimes obscure (*yita-kawa* [?-carry] 'give'). Some contrasting pairs are given below.

yita-kawa	*yuwa*	'give'
mil-kiya	*nyawa*	'see'
paya-puwa	*kampa*	'burn'
mininy-pa	*marrarra*	'say'
witij-jurra	*lajurra*	'dig'
muk-kurra	*wira*	'hit with implement'

Such duplication may reflect dialectal differences or borrowings, both linked to the close association with other language groups in both traditional and post-invasion settings. Hosokawa (2011:233) suggests that the increasing use of preverbal constructions in Pama-Nyungan languages of the region may be attributed to the use of Yawuru as *lingua franca* among workers on Thangoo Station in the early 20th century. Certainly, many of Mangarla's preverbs have cognates among Nyulnyulan coverbs.

Synonomy is also found among verbs with same morphological structure. Occasionally a preverbal nominal occurs with more than one AUX (§7.2.2.2) with no palpable change of meaning, and many mono-morphemic verbs are given the same translation, such as those commonly used to describe movement exemplified below. While the given translation of the verb in these examples is 'come', the same verbs (except for *kaparra* (7.2)) can be used with no sense of directionality, interchangeable with *yarra* 'go'.

7.2 *paparla* *wulu=pala* ***kapa-na*** *yala-ngu*
elder.brother father=3DU.S **come-PST** DIST-ABL
'Brother and father came from out there.' (2J83)

7.3 *ngapa=na kakarra-ngu* ***purta-nyarri***
water=3SG.S east-ABL **come-IPFV**
'Rain is coming from the east.' (2sen171)

7.4 *wanyjirra-ja parra-ngka* ***puka***
other-LOC sun-LOC **come.FUT**
'It will come tomorrow.' (2sen173)

7.5 *pirra-ngu=rna* ***parti-nya***
bush-ABL=1SG.S **go-PST**
'I came from the bush.' (1J1)

A detailed semantic study is recommended and may potentially reveal semantic differences along the lines of the hypothetical suggestions below. These are based on glossing sessions held over many years, where speakers placed different emphases on the same verbs in various contexts, and are supported by cognates in other languages.

yarra 'go, move, travel' neutral in terms of direction

parti 'go (away), depart (for/from)' (*cf.* Warlpiri 'arise'- Nash 1982:191)

purta 'come to/from/upon', having some location or entity in focus' (*cf.* Yawuru *burd* 'appear', 'get up from sitting'- Hosokawa 2011:521)

puka 'come, go, appear'

kaparra 'come (home), arrive', also 'meet, encounter', 'sit (with)', ('come and) stay', having a sense of association

kulpa 'come/go back', where the destination is the natural or expected situation and not always the point of origin (*cf.* Warnman 'return' - Burgman 2010, Warlpiri 'return home' - Nash 1982:192)

nguwirra 'return to the point of origin', possibly along the same route

In contrast with apparent synonomy, many verbs are polysemous (*kaparra* 'sit/stay/come/meet/encounter', *karri* 'stand/be/want/wait', *wira* 'grind/hit with missile', *waji-marra* 'keep/mind/have/hold/own', *pina-marra* 'listen/hear/understand/think', *marta-pa* 'cover/construct' *etc*.). For some, a change of meaning is related to the selection of optional arguments or a change in case assignment, but for others, interpretation is

purely context-dependent. A future semantic study would also be valuable to establish any underlying semantic connections which are not so obvious.

The following sections examine compound verbs in detail (§7.2) and the roles played by the auxiliary verb (§7.2.1) and the preverbal elements (§7.2.2), those which function exclusively as preverbs (§7.2.2.1), and those also classified as nominals (§7.2.2.2). Section 7.2.3 examines the nexus between the two elements of compound verbs. The inchoative, which manifests both close and loose nexus, is the topic of §7.3, and auxiliary reduction and zero-derivation of §7.4. Reduplication within the verb is described in §7.5.

7.2 Compound verbs

Preverbal elements which combine with an inflected verb root to form a single semantic unit are an areal feature of the north-west (*e.g.* Dixon 1980:280, McGregor 2002). Most compound verbs in Mangarla are formed with a small number of auxiliaries (§7.2.1).

Recent literature (Butt and Geuder 2001, Seiss 2009, Butt 2010, Bowern 2010) discusses the nature of inflecting verbs in constructions such as these and distinguishes between auxiliaries and light verbs. In Mangarla, as in Bardi (Bowern 2010), complex predicates are not a homogenous construction. The inflecting verb roots in the Mangarla constructions exhibit a range of properties, some associated with light verbs, some with auxiliaries and others with suffixes, as indicated in the following sections. A more nuanced analysis is likely to result from further study, but for the purposes of this reference grammar I use the term 'auxiliary' to refer to all inflecting verb roots in these constructions, which function primarily to provide information about tense, aspect and mood.

While the auxiliary alone carries the grammatical load, both parts contribute semantically to the resulting lexeme to a greater or lesser extent. While patterns are observable, the semantic contribution of most auxiliaries is not consistent, as discussed for each form in the following sections.

The semantic contribution of preverbal elements also varies. While some preverbal elements, particularly those which function as independent nominals (§7.2.2.2) or 'productive' preverbs (§7.2.2.1) carry the bulk of the semantic load, many compound verbs are frozen forms and the independent meaning of the preverb is, synchronically,

indiscernable. For consistency rather than accuracy, in example sentences I generally assign the gloss for the whole compound below the preverb and simply gloss the auxiliary as 'AUX'.

The transitivity of a compound verb is likewise not attributable to one part alone. For example, the simple verb *puwa* 'hit' is bivalent with a case frame of [ERG ABS], as is the compound, *kati-puwa* 'cut' [ERG ABS], in which it functions as auxiliary. However, the bivalent *yaji-puwa* 'wait' is semitransitive, with an [ERG DAT] case frame, while *makurr-puwa* [path-hit.IMP] 'beat a path' [ABS] is monovalent. Noun incorporation is apparent in examples such as this where both elements provide independent semantics to the combined meaning. Many complex verbs denoting bodily functions recorded by McKelson (1974), are formed with a preverb which appears to be an incorporated nominal object, also the case in Warlpiri (Hale 1982). Employing just a few auxiliary verbs, they include *kunturl-puwa* [phlegm-hit.IMP] 'cough', *janguly-puwa* [saliva-hit.IMP] 'spit'. The derivation of others is unknown, although the preverb is often onomatopoeic (*ngarrjurr-puwa* 'sneeze', *kurrpuk-kurra* 'vomit', *ngularra-puwa* 'snore'*, nyul-jurra* 'blow nose').

Most compound verbs maintain a 'close' or 'tight' nexus with the auxiliary. That is, the two elements are contiguous, in the fixed order of preverb-auxiliary which are generally pronounced as a single phonological word, the meaning of which is non-compositional. Where nominals occur separated from and/or following a verb, the two elements are semantically transparent and treated as independent. 'Loose' nexus compounds found in related languages are not generally recognised as a feature of complex verbs in Mangarla, although occasionally slippage occurs and even compounds with non-compositional semantics deviate from the usual pattern (§7.2.3). Historically, they may have been more common.

The inchoative, examined separately (§7.3), may be expressed as a verbalising suffix or as an independent verb, which, although it may be freely separated from the NP it selects, particularly the BP complex, always occurs in a fixed order, following the NP. However, analysis is further complicated by its ability to function as a copula (§12.1).

7.2.1 Auxiliary verbs

At least seven auxiliary verbs also function as simple verbs from two of the three conjugation classes. Four of those are used in the majority of compounds: *marra* 'get', *karra* 'do', *puwa* 'hit/kill' and the less productive *kawa* 'carry'. Three others occur in a limited number of compounds: *yuwa* 'give', *yurra* 'tell', *nyawa* 'see'. Five more (*-jurra, -turra, -purra, -kurra* and *-yirra*) are never found as independent stems. They are all members of the large open *-rra* conjugation class and, with most displaying clear phonological conditioning, potentially originated as verbalising suffixes.

Each auxiliary is examined below, starting with those which occur independently. Throughout this section, lists of compound verbs are given. Those listed in the right hand columns occur only in McKelson (1974) and their form and meaning remains unchecked. Preverbal elements in bold are attested as independent lexemes and also classified as nominals. Non-bolded words are classified as preverbs only (§7.2.2.1).

7.2.1.1 *karra* 'do'

The verb *karra* 'do' is cognate with the Walmajarri verbaliser *-karr* 'place, put' (Hudson 1978:49). However, in Mangarla, it occurs occasionally as an independent transitive verb.

7.6 *ka-naninya=pala kujarra-ju*
do-NARPST=3DU.S two-ERG
'Two fellows used to do it.' (FK49alt)

Most commonly, it occurs as an auxiliary with preverbal elements, many of which occur neither as independent lexemes nor with other auxiliaries.

7.7 *mininy pantu jara-ng-ka-nku=n*
language MED recognise-EP-AUX-FUT=2SG.S
'You will know that story.' (1D81)

7.8 *yurranyangu nga=ni=iny kurlmirri-ka-na*
morning CAT=3PL.S=3PL.O round.up-AUX-PST
'The next morning they rounded them up.' (Ngi36)

This is a highly productive auxiliary, creating new verbs from adverbials, nominals and loanwords, including inflected and multi-word NPs in loose compounds (§7.2.2.2, §7.2.3). Loans from Kriol are already marked by the transitive marker *-im* (7.11).

7.9 *pani-ngku=na=nya muku-ka-na*
s/he-ERG=3SG.S=1SG.O sick-AUX-PST
'He made me sick.' (G99)

7.10 *purlka-ka-nku=rtiny nga=na*
big-AUX-FUT=EXPECT CAT=3SG.S
'He was supposed to raise (the child).' (H6)

7.11 *rawuntim-ka-na=ni=ngarniny yawarta-arti-ju*
round.up(K)-AUX-PST=3PL.S=1PL.EX.O horse-PL-ERG
'They rounded us up with horses.' (1M39)

A couple of pronominals, demonstrative (7.12), and interrogative/indefinite (7.13), host the manner suffix when used as preverbs with this auxiliary.

7.12 *nimarrangka nga=rna yakarnu-karra-ka-nku*
arm CAT=1SG.S thus-MAN-AUX-FUT
'I will do it like this to it with my hand.' (HTD31)

7.13 *nyuntu-ngku=n jarni-karra-ka-nku*
you.SG-ERG=2SG.S how-MAN-AUX-FUT
'You will do with it whatever (you feel best).' (2D4)

Many verbs formed with this auxiliary are readily translated as 'cause to be' or 'make', as in *pintirri-ka-* 'create a plain', *turlku-ka-* 'make piles of dirt', *walparra-ka-* 'flatten', and sentences (7.9-10). However, they do not always have a causative reading.

7.14 *kurtiji-ka-na=ngarni=jiny nyaltu-karti, yakurr-partu~yakurr*
swift-AUX-PST=1PL.EX.S=3PL.O PROX-ALL no.good-TYPE~RDP

nganarni-kura-arti
we.all.EX-GEN-PL
'We ran to them here, all our old people.' (1M96)

7.15 *wajarri=rna=la* *ningarra-ka-ntama*
NEG=1SG.S=3SG.OBL true-AUX-PSTIRR
'I didn't believe him.' (*lit.* 'put truth in him') (A59)

Most compounds formed with *-karra* are either transitive [ERG ABS] (7.7-11) or semitransitive [ERG DAT/LOCAL] (7.15), with many of the same preverbs, particularly ascriptive nominals, combining with the inchoative, to produce an intransitive root/compound (*e.g. muku-yarri* [sick-INCH] 'become sick' (7.9), *purlka-arri* [big-inch] 'grow up' (7.10)). However, *ka-* is also sometimes used intransitively (7.16).

7.16 *Mangarla-artu ngarrungu nga=ni jurr-ka-ninya pirra-ngu*
Mangarla-COM person CAT=3PL.S down-AUX-NARPST bush-ABL

kurlila-ngu, walparni-ngarra kaniny-parrakurna
south-ABL to.here-about below-wards
'Mangarla speakers came down from the bush in the south, to down around here.' (1D10)

Many recurring forms are listed below (bolded 'preverbs' are also classified as nominals):

***wakaj**-i-ka-* 'finish'
***purlka**-ka-* 'raise'
***munji**-ka-* 'deceive'
***yakurr**-i-ka-* 'cause harm'
***wulyu**-ka-* 'make good'
***marlka**-ka-* 'satiate'
***jurr**-ka-* 'descend'
***kurtiji**-ka-* 'run toward, chase'
***ningarra**-ka-* 'believe'
***wulala**-ka-* 'get a lot of'
***jarnikarra**-ka-* 'do whatever/however'
***yakarnukarra**-ka-* 'do to, thus'
***kala~kala**-*ka- 'chase'
***ngampurr**-ka-* 'look after'
yartayi-ka- 'make camp'
***ngurtin**parra-ka-* 'divide into two'
***ngungku**-ka-* 'aim straight'
kurari-ka- 'turn over'
kinjirr-ka- 'dance around'
puli-ka- 'push'
ngampa-ka- 'embrace'
kankarni-ka- 'lift'
jiti-ka- 'put upright, plant, get up'

liyani[25]*-ka-* 'like', 'desire'
kitirr-ka- 'pull'
kurlmirri-ka- 'roll up, round up'

It is possibly significant to note that the imperative form of this verb is homophonous with the ubiquitous manner suffix on nominals (§4.3.11), used to derive adverbials and secondary predicates, to mark nominalised verbs as the temporal coincidence complementiser (§13.3.2) and nominalised verbs which are then re-verbalised with the auxiliary *kanga* (§7.2.1.4).

7.2.1.2 *marra* 'get, take, make'

As an independent verb, the meaning of *marra* is broad, and commonly involves manual, domestic or creative tasks.

7.17 *nganyjurru-ju nga=la ma-nku paralu wirli~wirli-yartu*
we.all.IN-ERG CAT=1PL.IN.S get-FUT catfish fishing.line~RDP-COM
'We will get a catfish with a fishing line.' (93sen19)

7.18 *warnjarl nga=rna ma-na*
leaf CAT=1SG.S get-PST
'I made tea.' (2sen222)

The proto-Pama-Nyungan root **ma-* is a common causative and functions as such in some compounds in Mangarla, but it also occurs with no sense of causation in other fixed combinations. Synchronically, most new verbs are formed with *karra,* but overlap occurs, and may reflect an old dialectal difference, with *karra* favoured by riverside speakers and *marra* by the southern *panpartupanpartu* speakers. Most synonymous forms employ nominals (shown bolded) in preverb function. Only *kitarr-* is not used independently.

ngampurr*-ka/ma-* 'look after'
warrkam*-ka/ma/pu-* 'do work'

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[25] *Liyan* means 'feeling' in Nyikina (Stokes 1982:352), and in Yawuru (Hosokawa 2011:210). It often, but not exclusively, combines with the verb *-ni* 'be'. It is probably recently borrowed into Mangarla by those living along the river, since it occurs rarely in McKelson (1974).

***yakurr**-ka/ma-* ‘cause to be not right’
kitarr-ka/ma- ‘pull, extract’

As with those formed with *-karra*, many derivations with *-marra* have an intransitive counterpart derived with the inchoative.

ngampurr-marra	*ngampurr-jarri*	‘care for/be careful’
waku-marra	*waku-yarri*	‘hide’
parrirl-marra	*parrirl-tarri*	‘wake up’

Most verbs with the *marra* AUX reflect features of the independent verb - most are transitive or occasionally semitransitive. One, *jurrungkul-ma-* ‘show’, is ditransitive. Many of its complex formatives also carry a sense of manual manipulation or conscious human effort:

***pirlu**-ma-*‘gut’
***purrurl**~purrurl-ma-* ‘boil’
***yakurr**-ma-* ‘do badly’
***pirti**-ma-* ‘make, decorate’
jani-ma- ‘cook (in earth)’
karti-ma- ‘hold’
jurrungkul-ma- ‘show’
waji-ma- ‘keep, have’
ngarrji-ma- ‘take from’
yinjil-ma- ‘release’
waku-ma- ‘hide’
yarra-ma- ‘lead’
ngunyi-ma- ‘send’
wakurr-ma- ‘dig’
ra-waji-ma- ‘clear like a grader’
walja-ma- ‘spill’
rurrngu-ma- ‘clear ground’
***ngapa**l-ma-* ‘make wet’
***ririi**-ma-* ‘shake’
***wirlki**-ma-* ‘twist, make crooked’
kiyi-ma- ‘throttle’
kilyi-ma- ‘insert’
tap-ma- ‘grab’
jarrpat-ma- ‘lift’
kiti-ma- ‘tickle’
kin-ma- ‘tie up’
tutul-ma- ‘tie up’

7.19 *waji-ma-ninya=ngarniny*
keep-AUX-NARPST=1PL.EX.O
‘They were holding us.’ (1M74)

7.20 *wakurr-ma-na=na, ngijakura-ju ngunurtu-ju*
dig-AUX-PST=3SG.S I.GEN-ERG older.sister-ERG
'She dug (for water), my big sister.' (1M17)

Others involve sensory experiences:

***nganga**-ma-* 'lose'
***pina**-ma-* 'hear, understand'
***parrirl**-ma-* 'wake someone up'
parnti-ma- 'smell'
***pukarri**-ma-* 'dream'
kuta-ma- 'fail to comprehend'

7.21 *ngapa=na parnti-ma-narri*
water=3SG.S smell-AUX-IPFV
'He is smelling water.' (PSan7)

7.22 *pantu mininy, pantu mininy nga=rna pina-ma-na*
MED language MED language CAT=1SG.S hear-AUX-PST
'I heard that story.' (FKNgi12)

Some involve oral or verbal activities.

japirr-ma- 'ask'
kalpi-ma- 'call on'
nipan-ma- 'translate'
jangku-ma- 'answer'
ngurrji-ma- 'promise'
jinkirr-ma- 'laugh at'
ngala-ma- 'yawn'

7.23 *ngayu-ngku jangku-ma-na=rna=la wajarri*
I-ERG answer-AUX-PST=1SG.S=3SG.OBL NEG
'I answered him, "No."' (FK86)

Neighbouring languages often have two homophonous stems which create compounds. The first is clearly cognate with Mangarla's *marra* 'get', but the second belongs to a different conjugation class, and is used to form sound verbs. In Walmajarri, *many-ja* [speak-IMP] contrasts with the bound verbaliser *-man-ta* [do-IMP] (Hudson 1978:43-45), while in Nyangumarta, *-ma-la* [VBZR-IMP] is a bound verbaliser used to form intransitive

verbs of sound emission and *marra* 'get' functions in a similar way to its Mangarla cognate (Sharp 2004:163).

In both Mangarla and Wangkajunga the same form performs all three functions. However, for Wangkajunga, Jones (2011:158, 168, 177) assigns each function to a homophonous form of the same conjugation class: an independent verb 'get', and two verb deriving suffixes, the transitive *-marra* [CAUSative] and intransitive *-marra* [EMIT sound]. The nature of the nexus in complex verbs in Mangarla is addressed in §7.2.3. In Mangarla, the second of these is probably cognate with the monomorphemic verb of speech *marrarra* 'say'. Verbs of communication formed with *-marra* are generally transitive (7.23) and different auxiliaries are used with ideophonic preverbs. For these reasons, the forms are not separated.

Another group of compounds with *marra* involves social activities:

***ngampurr**-ma-* 'care for'
***ngurru**-ma-* 'steal'
ngany-ma- 'poke fun'
marla-ma- 'assist'
ngarta-ma- 'spread out'
kalingka-ma- 'sleep with'
jirral-ma- 'abduct
kanpi-ma- 'gather together'

7.24 *pirra-jaku-ju* *ngarrungu-ju* *nga=ni* *ngany-ma-ninya*
bush-DEN-ERG person-ERG CAT=3PL.S enjoy-AUX-NARPST

pantu *warrkam*
MED work(K)
'Those bushmen enjoyed that work.' (Ngi10alt)

Three involve water:

***nyampurr**-ma-* 'bathe'
***kumarri**-ma-* 'turn into a storm cloud'
yitit-i-ma- 'drip on'

7.2.1.3 *puwa* 'hit, pierce'

Used independently, *puwa* indicates the use of force.

7.25 *kukunja nga=ngarni pu-ngarrinya, Karrakan-ta*
sheep CAT=1PL.EX.S hit-NARPST placename-LOC
'We killed a sheep at Karrakan.' (1R13)

7.26 *pu-ngarri=rna*
hit-IPFV=1SG.S
'I am hitting it.' (HTD44)

7.27 *nyini~nyini pu-ngarrinya=na*
little.stick~RDP pierce-NARPST=3SG.S
'She poked little sticks (round the dish).' (1J96)

Compound verbs formed with this auxiliary are numerous and many relate to domestic activities. Some, but not all, involve the application of force on an entity, reflecting the semantics and argument structure of its use as a simple verb:

***yarrkal**-pu-* 'hunt'
***larr**-pu-* 'split'
***lala**-pu-* 'cut into small pieces'
***makurr**-pu-* 'beat a path'
***ral**-pu-* 'pluck'
***parrirl**-pu-* 'make alert'
lul-pu- 'pluck'
kati-pu- 'cut'
paya-pu- 'burn, cook'
japaly-pu- 'chew'
jirrpirl-pu- 'tap boomerangs'
warrngarn-pu- 'dig hole'
parrpaly-pu- 'gut'
pirta-pirla-pu- 'hit on head'
wangkalman-pu- 'hit on head'
wartily-pu- 'hinder'
***tipiny**-pu-* 'close stomach with rib bone'
tuly-pu- 'squeeze'
wirrit-pu- 'strike matches'
nguntul-pu- 'snap fingers'
tantal-pu- 'clap hands'
pangal-pu- 'change form'
wukuli-pu- 'shake'
karrpal-pu- 'butcher'
tulat-pu- 'ignite'
timpil-pu- 'hit in rhythm'
tap-pu- 'burst (into flower)'

pangarra-pu- 'crack open'
parnta-pu- 'break'

7.28 *lul-pu-nga=na* *jani-ma-nu*
pluck-AUX-PRES=3SG.S cook-AUX-INF
'She plucks it and cooks it.' (PSh22)

7.29 *panpara-ja=ngarni-ya makurr-pu-ngarrinya, kakarra kara*
MED-LOC=1PL.EX.S-EP path-AUX-NARPST east west
'From that place, we beat a path going to and fro, east and west.' (FK14)

Often, the acts they depict cause a transformation, sometimes due to a repetitive action, with or without force.

***mil**-pu-* 'clean out dross, refine'
***kurlili**-pu-* 'revolve, turn over'
jut~jut-pu- 'sprinkle'
pul-pu- 'cover ground to sit'
tamarra-pu- 'mix up'
wirrja-pu- 'put, place'
wayurr-pu- 'winnow'
purrany-pu- 'wipe off'
til-pu- 'touch'

7.30 *jurnpu-ngku-rra=na* *mil-pu-ngarrinya,* *kampaja-ju=ngarningka*
dish-ERG-?=3SG.S clean-AUX-NARPST mother-ERG=1PL.EX.OBL
'Mother cleaned it for us using winnowing dishes.' (1J105)

7.31 *tarn~tarn* *nga=ngarni* *wirrja-pu-ngarrinya* *panjurn-ta* *kankarni*
secure~RDP CAT=1PL.EX.S put-AUX-NARPST wood-LOC up.top
'We hung it up in a tree.' (1R17)

Some are associated with oral/nasal functions including speech acts. Those which denote involuntary activities are largely intransitive, while those involving communication often occur with an oblique argument. *Mininy-pu-* 'speak' is ambitransitive (§11.3.9.1).

***mininy**-pu-* 'speak (to)'
***yini**-pu-* 'name'
manyja-pu- 'invite'
***janguly**-pu-* 'spit'
***kurntal**-pu-* 'cough'
tarrnga-pu- 'belch'

jawuwala-pu- ‘yawn’
kuyirn-pu- ‘blow water’
ngarrjurr-pu- ‘sneeze’
ngularra-pu- ‘snore’

7.32 only *Mangarla mininy-pu-ngarrinya=ngarni*
Mangarla language-AUX-NARPST=1PL.EX.S
‘We only spoke Mangarla.’ (1M53)

7.33 *pani wanyjirra, nga=ni-ya manyja-pinya, Mayarrurta-karti*
s/he other CAT=3PL.S-EP invite-AUX.PST placename-ALL
It was his turn next. They invited him to Myroodah. (Ngi77)

Some compounds with this auxiliary do not fit with the previous semantic categories:

yaji-pu- ‘wait’ *ngamparr-pu-* ‘block’
palamparr-pu- ‘sunrise’
marta-pu- ‘cover, protect’, ‘build shelter’
parli-pu- ‘spot what has been sought’
wajili-pu- ‘hang around’
warr-wajili-pu- ‘assemble’

7.34 *jarni-ngka=na parli-pu-ngku pani-ngku panaru kuwi*
where-LOC=3SG.S spot-AUX-FUT s/he-ERG MED.ERG meat
‘He will spot prey wherever it is, that one.’ (HTG127)

7.35 *yaji-pu-ngarrinya=na=la pantu*
wait-AUX-NARPST=3SG.S=3SG.OBL MED.DAT
‘He was waiting for that one.’ (93sen14)

The transitivity of verbs with this auxiliary varies. While most are transitive (*larr-pu-* ‘split’, *kati-pu-* ‘cut’), some selecting a second, optional, non-subject argument (*wirrja-pu-* ‘put’ (7.31), *manyja-pu-* ‘invite’ (7.33)), others are intransitive (*yarrkal-pu-* ‘hunt’, *makurr-pu-* ‘beat a path’ (7.29)) and a few are semitransitive (*yaji-pu-* ‘wait’ (7.35)).

7.2.1.4 *kawa* 'carry'

Used alone, *kawa* translates as 'carry', or 'transport'.

7.36 *jarna* *nga=pala=yarrany* *ka-ngarrinya*
piggyback CAT=3DU.S=1DU.EX.O carry-NARPST
'They two carried the two of us on their backs.' (1J20)

7.37 *kankarni=rra* *nga=ngarningka* *ka-ngarrinya*
up.top=away CAT=1PL.EX.OBL carry-NARPST
'She brought the overflowing dish to us.' (1J101)

As an auxiliary, it maintains this sense with a few verbs of movement and transfer.

***mil**-ka-* 'see, look at'	*jirril-ka-* 'slip'
jakurl-ka- 'report'	*kinjirr-ka-* 'dance around'
yita-ka- 'give'	*kurrka-ka-* 'heap up'

7.38 *kami* *ngijakura=rna* *mil-ka-nya*
grandfather I.GEN=1SG.S eye-AUX-PST
'I saw my grandfather.' (FKNgi22)

7.39 *nga=ni=nya* *yita-ka-nya* *kulpi*
CAT=3PL.S=1SG.O give-AUX-PST scoop.coolamon
'They gave me a *kulpi*.' (H1)

It is also used in a complex construction to re-verbalise a nominalised verb (often inflected with the manner suffix) which acts as preverb. The preverbal element has the same form as a subordinate clause of temporal coincidence (§13.3.2). It generally translates as 'do X and go on one's way' (see §7.2.2.2 for further detail). Both simple and compound verbs (7.40) may function as the nominalised preverbal element.

7.40 *kakarra,* *kakarra-nin* *nga=pala* *jiya-nu-ng-karra-ka-nya*
east east-?further CAT=3DU.S follow-INF-EP-MAN-AUX-PST
'The pair followed it on their way further east.' (Nya82)

7.2.1.5 *yuwa* 'give'

The verb *yuwa* 'give' is ditransitive and occurs in variation with the compound *yita-kawa* (7.39).

7.41 *yu-ngku nga=rna warnku*
give-FUT CAT=1SG.S stone
'I will give him money.' (2sen170)

A few compound verbs are formed with this root. All are transitive and generally encode acts of transference.

***nila**-yu-* 'teach' *karru-yu-* 'cheat'
pika-yu- 'surrender'
ngarri-yu- 'share food'

7.42 *pika-yu-ngku=la=rna*
surrender-AUX-FUT=1DU.IN.S=RR
'We'll give ourselves up.' (MC71)

7.43 *nila-yu-ngku=nya=n-nga jarni-karra-ny jani-ma-nu-pirri*
clever-AUX-FUT=1SG.O=2SG.S-EP how-MAN-EP cook-AUX-INF-PURP
'Will you teach me how to cook?' (G11)

7.2.1.6 *nyawa* 'see'

The independent verb *nyawa* 'see' is used in variation with the compound *mil-ki* (7.38).

7.44 *nya-wa=nya mil-ki=nya ngayu*
see-IMP=1SG.O eye-AUX.IMP=1SG.O I
'Look at me! Look at me!' (2R22)

This root forms transitive compounds which describe perceptual and mental processes.

***nganga**-nya-* 'lose', 'miss'
jala-nya- 'forget, neglect'
kinkirr-nya- 'look out for prey

7.45 *nganga-nya-nya=rna purrku pantu*
lose-AUX-PST=1SG.S old.man MED
'I missed seeing that old man.' (93sen40)

7.46 *wajarri nganarni=rni nganga-nya-wayi*
NEG we.all.EX=RR lose-AUX-NPIRR
'We don't forget who we are.' (*lit.* lose ourselves) (1D54)

7.47 *kamurra nga=n-nga=rna jala-nya-nya*
uncertain CAT=2SG.S-EP=RR neglect-AUX-PST
'Maybe you left yourself unguarded.' (FK98)

7.2.1.7 *yurra* 'tell'

The independent verb *yurra* 'tell' occurs only with direct speech (§13.4.1).

7.48 *pa, wurna=ngarni=nyurruny ka-ngku, mayaru-karti, kankarra,*
lets.go move.off=1PL.EX.S=2PL.O take-FUT house-ALL above

yu-na=ngarningka
tell-PST=1PL.EX.OBL
'"We will take you lot up to the station house," he told us.' (1M61)

It is used in one compound with the nominal *wulyu* 'good', to give the transitive verb *wulyu-yurra* 'like, approve'.

7.49 *wulyu-yu-n nga=rna kampi*
good-AUX-PRES CAT=1SG.S egg
'I like eggs.' (A22)

The next group of auxiliary verbs do not occur as independent lexemes. They all belong to the *-rra* conjugation class and vary in transitivity and semantic properties.

Many of the preverbs used with these auxiliaries are probable loans, occurring as coverbs in the grammars of Yawuru (Hosokawa 2011) and Nyikina (Stokes 1982). While the

direction of the borrowing is unverified, these preverbs are treated here as originally non-Pama-Nyungan, and verbalised in Mangarla. The initial consonant of this verbaliser/auxiliary is typically conditioned by the final segment of the preverb. Such phonological conditioning may indicate suffixhood or a simple derivation process of adding /u/ to create verbs of the *-rra* conjugation. Additional evidence for this view comes from zero-derived (semi)vowel-final loans from the same source into the same conjugation (§7.4). Furthermore, in a considerable number of cases, particularly when combined with a monosyllabic preverb, and after gemminate reduction (§2.3.6), they are phonologically indistinguishable from monomorphemic verbs. For this reason, they are sometimes written elsewhere in this thesis without a hyphen to indicate an overt morpheme boundary. However, categorially, they are treated as comprising separate morphemes for three reasons: phonological conditioning is not exhibited in all tokens, not all preverbs using these auxiliaries are verifiable loans, and similar loanwords employ auxiliaries other than these.

The alternative scenario is that they originated as vowel-final monomorphemic verbs in Mangarla and were borrowed as coverbs by Nyulnyulan languages, where the final vowel was lost.

7.2.1.8 *-jurra*

Many of the preverbs which employ *-jurra* end in a consonant which is [+palatal] or [+rhotic]. The same form occurs in many Wati languages as an independent verb meaning 'put', as an inflecting verb in compounds and as a productive verbalising/causative suffix (*e.g.* Goddard 1985:176, 238, Hansen and Hansen 1978:137, 147, 150, Jones 2011:156, 159, 169). In Mangarla it only functions in compounds with preverbs and a few nominals (bolded). These are of all transitivity types and incorporate many concepts associated with bodily functions, physical activity, reaction or change of state. The following list shows the variety of semantic domains encompassed by verbs formed with this auxiliary.

purtij*-ju-* 'burn'	***talyarr****-ju-* 'slip'
lintij*-ju-* 'make with stone'	***jalany****-ju-* 'poke out tongue'
makurr*-ju* 'follow path'	*nyim~nyim-ju-* 'beat' (heart)
yakurr*-ju-* 'dislike', 'displease'	*kati-ju-* 'pinch'
witij-ju- 'scrape, dig'	*tipirr-ju-* 'nod off'

wuly-ju- 'wet/wash'
purr~purr-ju- 'startle'
yaly-ju- 'lick'
wayurr-ju- 'winnow'
jirr~jirr-ju- 'stand over'
ngany-ju- 'poke fun'
warrpaj-ju- 'wave hand'
paj-ju- 'carve wood, strip'
yarr-ju- 'smear'
kularn-ju- 'clean(E)'
karta-ju- 'look for'
kuru-ju- 'return after dark'
wilkirr-ju- 'encircle'
lakarr-ju- 'mount'
jan-ju- 'chew'
makil-ju- 'half kneel'
nyul-ju- 'blow nose'
yukurr-ju- 'crawl'
rang-ju- 'pant'
winpal-ju- 'whistle'
wurr-ju- 'grind'

7.50 *wayurr-ju-narrinya=na=la* *jatarrangka*
winnow-AUX-NARPST=3SG.S=3SG.OBL times.past
'She would shake it, in the olden days.' (1J106)

7.51 *ngayu-ngku* *yakurr-ju-na=rna*
I-ERG no.good-AUX-PST=1SG.S
'I didn't want it.' (2sen192)

7.2.1.9 *-turra*

Compounds with *-turra* also comprise intransitive, transitive and semitransitive members. They sometimes encode a sudden or temporary activity or one characterised by repetition. All preverbs used with this auxiliary have a final consonant which is [+apical, -rhotic]. Hence, it may have the underlying form *-jurra* (§7.2.1.8), which has undergone place assimilation, such as occurs elsewhere in Mangarla (*e.g.* the ergative and locative cases) and in neighbouring languages. However, if this is the case, the apical-final forms listed in §7.2.1.8 would need to be accounted for.

***mul**-tu-* 'make a mound'
***kawit**-tu-* 'keep quiet(YW,?E)'
***jurrpurl**-tu-* 'make dough'
***ngurt**-tu-* 'enjoy'
kintarn-tu- 'hop'
kat-tu- 'shiver'
tirl~rtirl-tu- 'stagger'
jil-tu- 'drip'

tarl~tarl-tu- 'cooked well-done'
ngit-tu- 'pick up piece by piece'
jakart-tu- 'sneak up on'
pinjan-tu- 'stalk slowly'
kapat-tu- 'jump (on)'
karrpil-tu- 'be surprised'
yilkan-tu- 'hiccough'

7.52 *kapat-tu-narrinya=ngarni-ya=la* *tarnku,* *kakurtu*
jump-AUX-NARPST=1PL.EX.S-EP=3SG.OBL grip finish
'We would stomp on it, hold it tight, finish.' (2J13)

7.53 *n̄iddura*
ngit-tu-rra
pick.up-AUX-IMP
'Pick up the rubbish!' (McK:161)

7.2.1.10 *-kurra*

The auxiliary *-kurra* is found in few combinations, some of which involve the mouth. Others have no such connection. Many follow a preverb with a final velar consonant.

muk-ku- 'hit with club'
ngalak-ku- 'have a headache'
wilyi-ku- 'blow'
wuk~uk-ku- 'croak' (frog)
kurrpuk-ku- 'vomit'
rang-ku- 'breathe'
rung-ku- 'bark' (dog)
jurru-ku- 'kick'

7.54 *ngalak-ku-n* *nga=rna*
headache-AUX-PRES CAT=1SG.S
'I have a headache.' (2sen96)

7.55 *kakarra-ngu=na* *wilyi-ku-narrinya*
east-ABL=3SG.S blow-AUX-NARPST
'(A big wind) was blowing from the east.' (1R59)

7.2.1.11 *-purra*

This auxiliary is uncommon. It forms transitive and intransitive verbs and can coin new verbs from loanwords, shown in the first example. One speaker offered *warrkam-karra* as a better alternative for *warrkam-purra*, which he believed was not Mangarla (NB7p3), although more than one speaker uses it.

***warrkam**-pu-* 'work(K)'
***jurr**-pu-* 'put down'
***nyarlu**-pu-* 'give off rotting smell'
wupu-pu- 'singe'
katim-pu- 'cut(K)'
pap-pu- 'forget about'
turr-pu- 'blow'
purr-pu- 'blow'
rap~rap-pu- 'swell up'

7.56 *warrkam-pu-nku=n* *nyalara-ja* *Niyirramal*
work(K)-AUX-FUT=2SG.S PROX-LOC placename
'"You will have to work here at Nerrima now," (he said). (1P35)

7.57 *wurna=ni* *jurr~jurr-pu-n* *purnkurr-ja* *nyalara-ja*
move.off=3PL.S down~RDP-AUX-PRES shade-LOC PROX-LOC
'They are putting things down in the shade here to go for a walk.' (PSh27)

7.58 *wupu-pu-narrinya=na=la,* *jani-ma-narrinya* *ngayu-ngku*
singe-AUX-NARPST=3SG.S=3SG.OBL cook-AUX-NARPST I-ERG
'I would singe the hair off it, flipping it over in the fire and cook it.' (1J145)

7.2.1.12 *-yirra*

McKelson (1974) gives the auxiliary *-yirra* in a few compounds with vowel-final preverbs. In the Jarlmadangah corpus, it is found with only one preverb, although others may exist. Diphthongisation across the morpheme boundary generally occurs and only when the preverbal element is found with another auxiliary can a *-yirra* compound be distinguished from a mono-morphemic verb. For example, *kurrka* 'rise' occurs in the transitive compound *kurrku-kawa* 'heap up' (McKelson 1974:161) as well as the intransitive *kurrka-yirra* 'arise'. However, others like *walayirra* 'crawl', *payirra* 'call

out' and *kurtayirra* 'mix', for example, are treated as simple verbs in the absence of evidence to the contrary.

kurrka-yi- 'arise'	*jurra-yi-* 'goad'; '?follow'
	jatayi-yi- 'groan'

7.59 *kurrka-yi-narrinya=ngarni-ya kurrka-yi-narrinya=ngarni-ya wani-nyu*
rise-AUX-NARPST=1PL.EX.S-EP rise-AUX-NARPST=1PL.EX.S-EP be-INF
'We would get up and move on, get up and move on, then stop.' (1J83)

7.60 *wadyari dyura yira ṉanyangulu*
wajarri jurra-yi-rra-nga=nya=n=kulu
NEG goad-AUX-IMP-CAT=1SG.O=2SG.S=ANTIC
'Don't tease me for a fight.' (McK:140)

7.2.1.13 Non-productive compounds

Occasionally, a verb which is not generally used as an auxiliary will combine with preverb, potentially giving any semantically compatible verb the ability to function as an auxiliary. For example, the verb *pajarra* 'bite' combines with the preverb *wuly* (otherwise only recorded in the compound *wuly-ju-rra* [wet-AUX-IMP] 'splash, wet down') to produce *wuly-pajarra* 'suckle, feed'.

Verbs of movement rarely combine with preverbs (see §7.2.3 for a discussion of their use with action/manner nominals). However, occasionally they pair with a preverb such as *warr* (7.61), and the idiomatic expression in (7.62). *Jurr-parti* [down-go] is an alternative to *jurr-karra* 'descend'.

7.61 *nga=ni=ngkala warr-i-yanarri*
CAT=3PL.S=2SG.OBL2 gather-EP-go-IPFV
'They are coming together with you for it.' (FK37alt)

7.62 *milya badula*
milya partu=la
nose go-FUT=1PL.IN.S
'Let's dive in!' (McK:163)

7.2.2 Preverbal elements

In Mangarla, as in Wangkajunga (Jones 2011:158), four types of word act as preverbal elements:

i. those which cannot occur as independent words and which combine with only one inflecting verb root,
ii. those which cannot occur as independent words and which combine with more than one verb root,
iii. those which can also take verbal inflections and stand as independent verbs after undergoing auxiliary reduction,
iv. those which can occur as independent words and take nominal inflections, and are thus classified as nominals.

The first two types are bound forms, classified solely as preverbs (§3.4, §7.2.2.1). They comprise the majority of preverbal elements. Those of the third type are classified as both preverb and verb (§7.4). Nominals functioning as preverbs, can be simple lexemes or inflected or derived NPs (§7.2.2.2). Particles and interjections (other than those which also function as nominals) are unattested as preverbs in Mangarla, unlike Yawuru where words from any category can potentially function as preverbs (Hosokawa 2011:230). However, adverbial particles and action/manner nominals can have a similar semantic effect to preverbs as discussed in §7.2.3. Reduplication of preverbal elements is described in §7.5 together with that of simple verb stems.

7.2.2.1 Preverbs

Most preverbs (shown unbolded in lists given in §7.2.1) occur in a single fixed combination (*e.g. waji-marra* [?-get] ‘have, keep’ and *manyja-puwa* [?-hit] ‘invite’). The meaning of these compounds is non-compositional, just as English verb plus particle combinations, such as ‘try out’ or ‘carry on’, are semantically greater than the sum of their parts. The semantic contribution of a preverb can at times be isolated, such as when it is a verifiable loan (*e.g. liyani-karra* ‘like, desire’ where *liyan* means ‘heart, emotion, feeling’ in Yawuru (Hosokawa 2011:210, 224) and Nyikina (Stokes 1982:352), *jayinimap-karra* ‘chain up’ from English/Kriol), or if it occurs with multiple auxiliaries.

Mangarla does not have the large number of productive and semi-productive preverbs, which occur with many different inflecting verbs in Warlpiri (Nash 1982). However, a small number combine with more than one auxiliary, usually only two or three, mostly with a corresponding change in meaning or transitivity.

kurrka- 'rise':	*kurrka-kawa* 'heap up'	*kurrka-yirra* 'arise, decamp'
rang- 'breath':	*rang-kurra* 'breathe'	*rang-jurra* 'pant'
ngany- 'fun'	*ngany-marra* 'enjoy'	*ngany-jurra* 'poke fun at'
ngunyi- 'cause to go'	*ngunyi-marra* 'send'	*ngunyi-puwa* 'chase'
jurr- 'down'	*jurr-karra* 'descend'	*jurr-purra* 'put down
kati- 'press with sharp implement'	*kati-p(uw)a* 'cut'	*kati-jurra* 'pinch'

While the auxiliary verbs *karra* and *marra* often alternate in the derivation of transitive verbs from nominals (§7.2.1.2), some of which can also combine with other auxiliaries (§7.2.2.2), only one preverb (rather than nominal acting as preverb) is found with two auxiliaries with no ensuing semantic or syntactic change.

wayurr 'toss' *wayurr-jurra/puwa* 'winnow'

Some preverbs can also precede another preverb. Functioning as a simple preverb in (7.63), *pat* combines with two other preverbs in (7.64-65).[26]

7.63 *warrimpa=nyjangu=na* *kari-ka-nu-pirri* *pat-pu-ngarri=na*
by&by=INDEED=3SG.S rouse-AUX-INF-PURP bury.in.ash-AUX-IPFV=3SG.S
'He'll bury it in the ashes so he can take it out much later' (HTG98alt)

7.64 *pat-jani-ma-nku* *warlu-ngka*
bury.in.ash-cook-AUX-FUT fire-LOC
'(And we) will cook it under the ash in the fire.' (HTD85)

[26] This is homophonous with the ideophone *pat* 'thump' (e.g. *pat-kurru* [thump-doer] 'kangaroo sp.', *nyarrapatpat* [away.thump.RDP] 'crested pigeon') and may refer to the noise made when scooping ash over food for cooking. As a preverb, it is only used in the context given here.

7.65 *pat-paya-pu-ngku=na* *panarta* *warrimpa-pirri*
bury.in.ash-burn-AUX-FUT=3SG.S MED by&by-PURP
'He will bury that one in the ashes (to have) later.' (HTG95)

The preverb *warr* can precede the compound *wajili-puwa* 'hang around' with a similar meaning to its use with *yarra* 'go' (7.61).

7.66 *nyaltu=ni=ngka,* *nga=ni=ngkala* *warr-wajili-pu-ngarri*
PROX=3PL.S=2SG.OBL CAT=3PL.S=2SG.OBL2 gather-hang.around-AUX-IPFV

nyuntu-purru
you.SG-PURP
'Here with you, they are all assembling with you for it, for (grabbing) you.' (FK37)

One lexical compound, *waji-marra* 'keep', occurs regularly in double preverb compounds (*e.g. wilkirr-ju-* 'encircle', *wilkirr-waji-ma-* 'round up'). In (7.67), it occurs with *yitit* whose meaning seems to be related to the expression of water droplets (*e.g. yitit-i-ma-* 'rain on' (7.73)). In (7.67), the speaker is describing how to straighten a stick by placing it in the fire, 'to make him cry', when making a spear.

7.67 *jukala-ju=n* *yitit-waji-ma-nku*
?foot-ERG=2SG.S drip-keep-AUX-FUT
'You will straighten it with your foot.' (HTS65)

Not all the double preverb constructions can be easily related to the meaning of the compound to which they attach. It is difficult to relate the meaning of *waji-marra* 'keep, have' to *ra-waji-marra* 'clear an expanding space, like a bulldozer', possibly indicating that double preverb constructions can also be lexicalised. *Ra* or *raa* has cognates in many of the languages of the region, translated as 'spread out' in Walmajarri (Richards and Hudson 1990) and in Warlpiri, as 'clearing' (Nash 1982:175). In Nyangumarta, as a particle before verbs and nominals, Sharp (2004:286) notes that it conveys 'the idea that something is intensifying or increasing in volume or size' and is used with the verb 'climb' to describe daybreak (McKelson 1989b:39).

In Mangarla, only monosyllabic preverbs are attested in first position of these double preverb constructions which always form 'close' compounds (§7.2.3). Such constructions are not common, but are increasingly more common further east, in the Ngumpin-Yapa group (Walmajarri - Hudson 1978, Jaru - Tsunoda 1981, Warlpiri - Nash 1982).

7.2.2.2 Nominals as preverbs

Many independent nominals function as preverbal elements. For example, the nominal *mininy* 'language' combines with the auxiliary *-pu*, to create the verb *mininy-pu-* 'say, talk' (also *mil* 'eye', *mil-kiya* 'see/look at'; *ningarra* 'true', *ningarra-karra* 'believe' and *yarrkal* 'hunting trip', *yarrkal-puwa* 'hunt' *etc*.). Many common compounds formed in this way are listed in §7.2.1 with the nominal bolded.

The semantics of the resulting compound is clearly dominated by the preverbal nominal. Most occur with a single auxiliary in a frozen compound (including those just given). However, in other cases, a nominal can occur with more than one auxiliary, often with a semantic contrast.

yakurr 'no good'-	*yakurr-karra* 'make bad'	*yakurr-jurra* 'dislike'
ngampurr 'care'-	*ngampurr-marra* 'care for'	*ngampurr-jurra* 'handle carefully'
nganga 'lost'-	*nganga-marra* 'lose (thing)'	*nganga-nyawa* 'forget, fail to see'
mil 'eye, seed'-	*mil-kawa* 'see'	*mil-puwa* 'clean, pick out dirt from seed foods'

Other alternations, such as the *-ma-/ka-* alternatives given in §7.2.1.2, have no perceptible change in meaning. Possibly, the variations listed below may be the result of a subtle shift in focus which is untranslatable for the whole compound. For example, *-jurra* is associated with bodily functions, *-puwa* with force and *-marra/karra* with agency.

parrirl 'alertness'	*parrirl-puwa/marra* 'wake someone up'
kunturl 'phlegm'	*kunturl-jurra/puwa* 'cough'
janguly 'saliva'	*janguly-jurra/puwa* 'spit'
nyampurr 'bath'	*nyampurr-jurra/marra* 'bathe'

The *-karra* auxiliary may be used to derive complex verbs from nominals bearing inflectional suffixes. This is shown earlier in (7.12-13) with the indicational

demonstrative and the interrogative *jarni* both inflected with the manner suffix before being verbalised with *-karra.* Nominals with ergative/instrumental inflection can often be translated as 'do with X' (7.68) while the more common locative translates as 'put in X' (*e.g. jurra-ngka-ka-* [ashes-LOC-AUX] 'cook in the ashes', '*kuny~kuny-ja-ka-* [brain~RDP-LOC-AUX] 'put in brain, remember', *nilapa-ja-ka-* [ear-LOC-AUX] 'put in ear, learn', *murtika-ja-ka-* 'take in a car', *ngurra-ngka-ka-* [camp-LOC-AUX] 'marry', *rurrp-ja-ka-* 'do in exchange/response').

7.68 *ngapa-ngku-ka-nku=n*
water-ERG-AUX-FUT=2SG.S
'You should make it wet. (*lit*. 'do it with water') (HTS73)

7.69 *jilamana-ja-ka-narrinya=ni pulit*
rifle-LOC-AUX-NARPST=3PL.S bullet(E)
'They loaded their rifles with bullets.' (Ngi71)

It can sometimes be difficult to determine if *karra* is functioning as an independent verb or as a free auxiliary (also true of inchoative constructions - §7.3). However, the placement of BPs in second clausal position, after the verbalising auxiliary, can be seen as evidence that compound verbs formed in this way have word status, and that the auxiliary has scope over the inflected NP. Word order, which in these constructions is invariable, also supports this analysis; the inflected NP always precedes the auxiliary verb.

In the next sentence, an NP of more than one word functions as a preverb.

7.70 *panaru-ju Ngujpan-tu, wanyju kurturtu-ka-ninya=la*
MED-ERG personal.name-ERG one stomach-AUX-NARPST=3SG.OBL
'That Ngujpan only felt one thing for them.' (Ngi76)

Nominalised verbs

One special construction involves a complex preverbal element, formed when a nominalised verb, generally inflected with the manner suffix is re-verbalised with the auxiliary verb *kawa* 'carry'. The nominalised verb may be intransitive (7.71) or transitive (7.72), simple (7.71-72) or complex (7.73-74). In the latter instance, the resulting verb

then has two auxiliary verbs, one nominalised in the preverbal complex and the final verbalising root.

7.71 *pantangkaju-ya, purturr nga=pala* ***karri-nyu-karra-ka-nya*** *Ngiyingiyi*
after.that-EP middle CAT=3DU.S **stand-INF-MAN-AUX-PST** placename
'Then, the pair made a halfway camp before moving on to Mowla Bluff.'
(Nya36)

7.72 *panaru=pala* ***ma-nu-ng-karra-ka-nya*** *panartu*
MED.ERG=3DU.S **get-INF-EP-MAN-AUX-PST** MED
'Those two got that and took it with them.' (Nya8)

7.73 *ngapa-ngku=ngarniny yitit-i-ma-nu-karra-ka-ngarrinya ngapa-ngku*
water-ERG=1PL.EX.O **drip-EP-AUX-INF-MAN-AUX-NARPST** water-ERG
'Rain fell on us (?and moved on/?as we went).' (2J135)

The transitivity of the auxiliary (the bivalent *kawa* 'carry') does not affect the transitivity of the final compound which is governed by the nominalised verb. Hence, the derived verbs in the first two examples below remain intransitive while those in the next two remain transitive. Translations indicate subsequent movement in association with the nominalised act, 'X did something and carried on'. The event denoted by the nominalised verb interrupts or conditions a process or journey. In (7.73), it is unclear as to whether the referent in subject or object function 'carried on'.

In the next two examples, the speaker describes the movements of two ancestral women who cleared the land and created plains 'bulldozer-*waliny*', 'same as a bulldozer', as they moved eastwards. In (7.74), a double preverb compound is nominalised before being re-verbalised with the second auxiliary. Example (7.75) shows how productive this construction can be; a nominal is verbalised by the inchoative, re-nominalised, inflected and re-verbalised. The nominalised stem itself is a compound verb which employs the free inchoative form rather than the phonologically conditioned suffix *-yarri* (§7.3).

7.74 *kakarra=pala* ***ra-waji-ma-nu-ng-karra-ka-nya*** *kakarra-yi*
east=3DU.S **clearing-keep-AUX-INF-EP-MAN-AUX-PST** east-?
'They cleared a plain as they moved along to the east.' (Nya32)

7.75 ***warnji jarri-nyu-ng-karra-ka-nya****=pala*
alive **INCH-INF-EP-MAN-AUX-PST**=3DU.S
'Those two travelled on from there alive.' (Nya70)

Used by only three consultants, this construction may be a recent innovation influenced by Walmajarri which has an identical construction. It only occurs once or twice in McKelson's data (7.76), although its paucity there is most likely due to the lack of narrative texts. Occasionally it occurs with a bare infinitive, without the manner suffix and possibly originated as a clause chain with a nuclear juncture before becoming lexicalised (§13.2.1).

7.76 *gara ṉani* *gurgainuganya*
kara=ngarni *kurrka-yi-nu-ka-nya*
west=1PL.EX.S rise-AUX-INF-AUX-PST
'We went back west.' (McK:PS56)

7.2.3 Close and loose compounds

The ability of preverbs and inflecting verbs to form different types of compounds is well recognised in Australian languages. Two types, classified as 'close' (also 'bound') and 'loose', are usually differentiated by semantic independence, combinational possibilities, word order, and the ability of different types of information to intervene between the two elements (Tsunoda 1981:185, Nash 1982, McGregor 2002, Bowern 2010, 2014, Meakins and Nordlinger 2014:314).

In Mangarla, compound verbs are almost always of the 'close' type, having non-compositional meanings, occurring in fixed combinations, observing contiguity and strict word order of preverb-AUX. All the compounds illustrated in (§7.2.2) are shown with a close nexus. For example, the compound verb *jani-marra* 'cook' (7.77) occurs dozens of times in the corpora without variation in form, meaning or word-order (apart from rare pre-preverbal modification shown in §7.2.2.1 - 7.64). Its ability to occur in clause-initial position before second position clitics is further evidence that the two elements form a compound.

7.77 *jani-ma-nku=lpa=rna* *panartu*
cook-AUX-FUT=ASSERT=1SG.S MED
'I reckon I'll cook that one.' (HTD48alt)

The majority of preverbal elements exhibit no semantic or syntactic independence. In §7.2.2.1, I described the tight bond most preverbs have with a single auxiliary, and how only a few combine with other auxiliaries. The preverb *jani-* in (7.77) never occurs in isolation, or with another auxiliary, and the compound is generally pronounced as a single phonological word.

Even nominals, which function independently in other contexts, form tight bonds with a single auxiliary when functioning as preverbs. These form lexicalised compounds, with the characteristics just described. Like *jani-marra* 'cook', compounds such as *mil-kawa* [eye-carry] 'see', *mininy-puwa* [language-hit] 'speak' permit no separation or variation in form.

Loose compounds, however, relax the constraints on close nexus compounds. Tsunoda notes that the dichotomy between close and loose compounds in Jaru 'is by no means clear-cut; the situation is more in the nature of a continuum' (Tsunoda 1981:185). At the extreme end of this continuum, both elements are semantically transparent and independent. The omission of the non-inflecting element does not radically alter the meaning of the verb or result in ungrammaticality. The preverb is not linked to one particular inflecting verb and it may occur with a range of semantically compatible verbs. It also has inflectional properties not available to those in a close nexus. Finally, the elements are not subject to word order or adjacency constraints. Only some combinations in Jaru have the flexibility to be expressed with both nexus.

In Mangarla, they are also rare, but the only verbs considered to be loose nexus compounds can also occur with a close nexus. These will be described before examining frequently occurring verb-nominal pairings which are not considered compounds in Mangarla.

Loose compounds do not exhibit as much freedom as the Ngumpin types and vary only slightly from those with a close nexus; they maintain the preverb-auxiliary order but allow the BP complex (but no other information) to intervene between the preverb and auxiliary.

Apart from those formed with the two most productive auxiliaries, the inchoative, *jarri*, and *karra* 'do', most loose compounds occur in McKelson's earlier data, indicating that historically, they may have been more common. For example, the preverb *jurrungkul* never occurs without the auxiliary *ma-* and is not semantically independent. In 20 tokens of the compound *jurrungkul-marra* 'show', only two occur discontinuously. Both are uttered by the same speaker in 1968, who also combines them in a close nexus in the same text (Text 2 Appendix 1).

7.78 *gui dyurungul nanya manarinya*
kuwi jurrungkul=na=nya ma-narrinya
meat show=3SG.S=1SG.O AUX-NARPST
'He showed me how to kill game.' (McK:PS14)

The auxiliaries *jarri* (inchoative) and *karra* can both function as independent words in close and loose compounds, and can have scope over inflected and multiple elements. The verbs in (7.79-80) are close compounds, shown by their ability to precede the BP complex as a single element in clause-initial position; the non-compositional meaning of the first combination is also strong evidence. In (7.81-82), the verbs are loose compounds.

7.79 *ngurra-ngka ka-na=na=la purrku-ngku*
camp-LOC AUX-PST=3SG.S=3SG.OBL old.man-ERG
'The old man married her.' (H5)
(*lit*. 'The old man did in camp with her.')

7.80 *milya ganiny dyarina*
milya kaniny jarri=rna
nose below INCH=1SG.S
'I bend my head' (*lit*. 'I am nose down.'). (McK:70)

7.81 *ngurra=ni-ya ka-nku*
camp=3PL.S-EP AUX-FUT
'They will make a camp.'

7.82 *rayin nga=napala jarri-nya*
fear CAT=3DU.S INCH-PST
'Those two were frightened!' (1P62)

The inchoative is fully described in §7.3, but its form as a phonologically conditioned suffix probably developed from its use as an auxiliary in a close nexus compound (7.91), while its use as a copula (§12.1) may have developed from loose nexus compounds such as (7.82).

In Jaru, a large number of 'loose' verb compounds at the extreme of Tsunoda's continuum have none of the constraints outlined for close compounds. The same criteria used to distinguish them from close compounds are used here to support an analysis that the two elements are separate constituents. Such a degree of semantic and syntactic independence, outlined above and illustrated below, leads me to classify the uninflected elements in such expressions as action/manner nominals (§3.2.3) or adverbial particles (§3.5), according to whether or not they can take nominal inflections. These narrow or specify the meaning of the verb, or add information about a participant or the event as a whole.

These word classes frequently occur with stative verbs or verbs of motion to specify manner, intent or posture, amongst other things. Clauses of the type shown in (7.83-88) would be considered loose compounds in Ngumpin languages (Hudson 1978:44, Tsunoda 1981:183, Meakins and Nordlinger 2014:320-323, 327-329). McKelson (1974:144) also analyses words such as *yarrkal* 'hunting', *jalpi* 'abreast' and *manpin* 'spread out in a line' as 'composite verbs with base word "to go"', but he makes no comment on stative types.

7.83 *yarrkal=ngarni parti*
hunting=1PL.EX.S go.PRES
'We go hunting.' (1R14)

7.84 *partu=na, partu=na yarrkal*
go.FUT=3SG.S go.FUT=3SG.S hunting
'He will go, go hunting.' (HTG2)

7.85 *dyibiyardi ni badi manbin*
jipi-yarti=ni parti manpin
man-PL=3PL.S go.PRES spread.out
'The men walk spread out.' (McK:116)

7.86 *nyuntu=n lampu wani-nya*
you.SG=2SG.S sleep be-PST
'You were asleep.' (2sen141)

7.87 *lampu=na wani-nyarri*
sleep=3SG.S be-IPFV
'He is sleeping.' (2sen140)

7.88 *wani-nya=ngarni lampu*
be-PST=1PL.EX.S sleep
'We stayed (out there) and slept.' (FKNgi5)

They show great freedom of word order and separation of the two elements. In Mangarla, as in Jaru (and other Ngumpin languages) the non-inflecting elements in clauses of this type can be used independently as nouns and take nominal inflections in other contexts (Tsunoda 1981:179). In my analysis, none of the sentences in (7.83-88) contain compound verbs. Regardless of their proximity to an inflecting verb, the action/manner nominals are performing typical nominal functions, as adverbial modifiers (7.83-84), copula complement (§12) (7.86-87), and secondary predicate (7.85, 7.88).

Both elements are semantically transparent and independent. Except for those functioning as copula complements, the omission of the nominal does not radically alter the meaning of the verb or result in ungrammaticality (although in its absence, word order may change). In (7.84), the speaker omits *yarrkal* from the first clause, adding it in the second for expansion and clarification, as in (7.89).

7.89 *parti-nyarrinya=na wurna, yarrkal*
go-NARPST=3SG.S move.off hunting
'He went on a trip, hunting.' (MC22)

Nominals in these clauses are not linked to any particular verb and may occur with a range of semantically compatible verbs. The substitution of a synonymous verb such as *yarra* 'go' in (7.83-85), or the inchoative in (7.86-88) would not result in a change of meaning. Likewise, the nominal may be substituted by a synonymous term, where one exists. In (7.90), *kuwikarti* give the same reading as *yarrkal* in (7.84).

7.90 *kuwi-karti=ni partu*
game-ALL=3PL.S go.FUT
'They will go for meat.' (PSh32alt)

Unlike loose compounds formed with *jarri* and *karra*, combinations with stative and motion verbs cannot, in normal use, form a close compound which can host the BP clitics. The elements under discussion are not subject to word order or adjacency constraints. In fact, the preferred position of the nominal is after the inflecting verb (7.84-85, 7.88-89). Material other than the BP complex can intervene between the two (7.89).

Sentences such as (7.89) are not uncommon and are problematic for a 'preverb' analysis of *yarrkal* and its ilk in other ways too. Not only does *yarrkal* occur after a pause in a separate prosodic unit, but it co-occurs with *wurna* also a 'preverb' under this analysis. However, unlike the pre-preverbs of close compounds (§7.2.2.1), the order of these two words here is unconstrained and no change in meaning to the 'compound' as a whole ensues.

As with many nominals, some action/manner nominals do occur in verb compounds. Most depicting states, such as *lampu*, can combine with the inchoative with both a close (7.90) and loose (7.92) nexus. *Yarrkal* functions as a preverbal element in a close compound with the auxiliary verb *puwa* (7.93). Only in these combinations are these words considered preverbal elements. When used with other verbs, they are considered independent words in one of the many functions a nominal may perform, including argument, modifier, (secondary) predicate (§12.4) or as the complement of a copula (§12.1).

7.91 *lampu-yarri-nyarrinya=ngarni-ya*
sleep-INCH-NARPST=1PL.EX.S-EP
'We would go to sleep.' (1J57)

7.92 *lampu=la jarru*
sleep=1PL.EX.S INCH
'Let's go to sleep.' (2sen2)

7.93 *yarrkal-pu-ngarrinya=na wulu-ngku kuwi arlipala*
hunting-AUX-NARPST=3SG.S father-ERG meat early.fella(K)
'Father would go hunting meat early.' (1J78)

7.3 *jarri* (INCH) inchoative

Semantically, the inchoative combines with nominals to encode evolving processes or states. These may be physical ('go rotten/hard/tender', 'get cold/hot/sick', 'be born', 'boil', 'become hungry/sated/drowsy', 'grow up', 'die'), affective ('get angry', 'be frightened/happy/jealous', 'dislike', 'feel pity', 'go quiet'), cognitive ('get knowledge', 'go mad', 'learn'), or socio-cultural ('become one' *e.g.* mob/married couple, 'become a man/initiate'). They may refer to the passage of time ('become summer/morning', 'get dark'), or a change of position or location ('be lost/hidden/full up', 'become of the river', 'go down', 'come up/close/from above'). With action nominals, it creates intransitive activities ('run', 'abscond', 'kneel', 'fall asleep').

As a verb-deriving suffix, it creates intransitive verbs from nominals and is subject to regular morphophonemic rules described in §2.3.7. Its allomorphs are sensitive to the features of stem-final phonemes and to number of syllables in high vowel-final stems.

-jarri	consonant-final stems which are [-apical] or [+rhotic], (*ngampurr-jarri* 'be careful', *nam-jarri* 'be closed', *juny-jarri* 'die' 7.94)
-tarri	consonant-final stems which are [+apical, -rhotic] *(parrirl-tarri* 'become alert' 7.95, *rayin-tarri*'be afraid' 7.101b)
-yarri	on stems ending in /i/ and /u/ (*muku-yarri* 'get sick' 7.97, *jipi-yarri* 'become a man' 7.98)
-arri	on stems ending in /a/ (stem-final vowel deletion applies) *(nila-arri* 'be knowledgeable', *purlka-arri* 'grow up' 7.96) and on stems longer than 2 syllables ending in /u/ after optional segment deletion (*yurranyang(u-y)arri* 'become morning')

These suffixes never take primary word stress and have scope only over the lexical item to which they attach. The derived verb can occur in any position within the clause.

7.94 *kurlila-ngu ngarrungu=na juny-jarri-nyarrinya*
south-ABL person=3SG.S deceased-INCH-NARPST
'Those people who came from the south have all passed away.' (1D24)

7.95 *baril darayi*
parrirl-tarri=yi
alert-INCH.IMP=PL
'You three wake up.' (McK:157)

7.96 *mulnyi-ngka nga=rna purlka-arri-nya ngayu*
soil-LOC CAT=1SG.S big-INCH-PST I
'I grew up (sleeping) on the ground.' (1R63)

7.97 *muku-yarri=n=kulu*
sick-INCH.PRES=2SG.S=ANTIC
'You might get sick.' (G72)

7.98 *jipi-yarri-nya=rna Lungkayi-ja*
man-INCH-PST=1SG.S placename-LOC
'I became a man at Luluigui.' (1R78)

Functioning as an independent auxiliary verb, the consonant-initial form *jarri* is used to form compound verbs, as in Nyangumarta (Sharp 2004:95-99). It has the same meaning as the suffixal form, but as a free word, it takes lexical stress, and is not subject to any of the morphophonemic processes which it undergoes as a suffix (although see below for an alternative form in compounds which displays some conditioning). Its use in loose compounds is amply illustrated in §7.2.3, and below, with a single nominal preverbal element (7.101a), and with scope over inflected nominals and multi-word NPs (7.99-100), although these are ambiguous as copula constructions (see §12.1 and below).

7.99 *yirli-yartu [kanu-ngu nyurru]=na jarri-nya*
penis-COM [bottom-ABL far]=3SG.S INCH-PST
'The male came from way underneath.' (MC59)
(*lit*. 'The male from way underneath became/appeared.')

7.100 *pantu wakaj-kuyarra [kaniny martuwarra-ja]=na jarri-nya Nyikina-ja*
MED complete-all [below river-LOC]=3SG.S INCH-PST Nyikina-LOC
'Everybody arrived down by the river in Nyikina country.' (1D26)

The next two examples compare its use as a free verb (in a) clauses) and as a phonologically conditioned suffix (in b) clauses). In (7.102b) it is used both ways, first as a free verb and then as a suffix. The inchoative rarely precedes the NP in its scope in a reversal of order as seen in this example where the repetition of the verb in its bound form may be a self-correction.

7.101 *a) rayin nga=na jarri-nya*
fear CAT=3SG.S INCH-PST
'He was afraid.' (Ngi84)

b) gunyar badyanudi, ñunudu ñana rain darai
kunyarr paja-nu-yiti ngunurtu nga=na rayin-tarrayi
dog bite-INF-CHAR sister CAT=3SG.S fear-INCH.NPIRR
'The dog is so vicious that it frightens sister.' (McK:53)
(*lit*. 'The dog is a biter (and) sister *might* become frightened.')

7.102 *a) wirriya=la jarri*
happy=1DU.IN.S INCH.PRES
'You and I feel happy.' (G132)

b) gambadyara dyu ba wulu yarra dyu ñani dyarinya wiriya
kampaja-rra-ju-pa wulu-yarra-ju nga=ni jarri-nya wirriya
mother-DU-ERG-and father-DU-ERG CAT=3SG.S INCH-PST happy

wiriya rinya
wirriya-arri-nya
happy-INCH-PST
'Our parents were happy, they were happy.' (McK:PS24)

Occasionally, the free form is contiguous with the nominal over which it has scope, but undergoes no morphophonemic changes. Most commonly, this occurs with words of three or more syllables ending in /i/. The forms listed below which all occur with no intervening elements may be influenced by Walmajarri, where the inchoative is a bound verbaliser with the same invariable form, *i.e.* is always contiguous with the NP and is never subject to morphophonological processes (Hudson 1978:45). The phonologically conditioned suffix is an attested alternative in Mangarla for some of these, as shown.

manyula jarri ‘be tired’ *cf.* *manyula-arri* ‘be tired’
yawuwi jarri ‘feel sorry for’ *cf.* *yawuwi-yarri* ‘feel sorry for’
runawiyi jarri ‘abscond(E)’
yangka-karti jarri [behind-ALL INCH] ‘go behind’

Occasionally, the form *narri* is heard, rarely at Jarlmadangah but McKelson (1974) records several instances. Always following a vowel, it can be attached directly to a nominal or after intervening material.

7.103 *nyalu nari dyurar*
nyarlu narri jurarr
dead INCH.PRES sea
‘It is neap tide (the sea becomes dead).’ (McK:65)

7.104 *kurlila jararr nga=narri-nya yulu paniyarti-kura*
south empty EP-INCH-PST ground they-GEN
‘In the south, their country became empty.’ (1D65)

As many of these clauses contain third person subjects, they were first understood to consist of the 3SG.S clitic *=na* (optionally attached to the catalyst *nga*) followed by the phonologically conditioned suffix *-arri*, *i.e. (nga)=na-arri* [CAT=3SG.S-INCH], in a ‘loose’ compound combining attributes of both suffix and free form.

However, the same form occurs with clitics where such an analysis is not possible. In (7.105), *narri* functions as an allomorph of the free form *jarri,* but in (7.106), it is an affix of the first sentential element, hosting the BP complex, and in (7.107) it is ambiguous as free form or suffix.

7.105 *rain ñanala narinya*
rayin nga=rna=la narri-nya
fear CAT=1SG.S=3SG.OBL INCH-PST
‘I am (*sic.*) frightened of him.’ (McK:96a)

7.106 *marnpa-narri-nya=na*
close-INCH-PST=3SG.S
‘He got closer.’ (H50)

7.107 *murun̄gur dyanga n̄ana n̄arun̄u narrinya*
murungkurr-jangka nga=rna ngarrungu narri-nya
spirit.child-SRC CAT=1SG.S person INCH-PST
'Through a spirit child I became a human being.' (McK:96)

In all cases where *narri* is found, other alternatives are available; a derived verb can be formed with the conditioned suffix attached directly to the nominal, or the free form *jarri* can be used, particularly after the BP complex in a loose compound. Homophonous with the imperfective inflection of the *-rra* conjugation, *-narri* could easily be mistaken for zero-derivation which creates verbs from preverbs (§7.4), particularly cognates shared with Nyulnyulan languages (*e.g. numaru* 'jealousy' > *numarunarri* 'being jealous', *jawu* 'swim'(YW) > *jawunarri* 'swimming').

As a fully independent intransitive verb, *jarri* functions like other stative verbs, with the idiomatic meaning of 'make way' (7.108), or as a copula (§12.1), selecting a nominal complement in the dative, absolutive or spatial case. With a dative complement, it conveys a sense of desire (7.109), but with an absolutive nominal, the same semantic effect as its suffixal form is achieved: the ascription of a property or state to the subject (7.110). A locational complement ascribes a location to the subject, but as noted above, these are often ambiguous as loose compounds.

7.108 *dyariyala*
jarri-ya=la
INCH.IMP-EP=3SG.OBL
'Give him room.' (*lit*. 'Become for him.') (McK:157)

7.109 *wai n̄an̄a dyari gagir gu*
wayi nga=n-nga jarri kakirr-ku
Q CAT=2SG.S-EP INCH egg-DAT
'Do you want an egg?' (McK:103)

7.110 *rainidi n̄unudu n̄ana dyari gunyar gu*
rayin-yiti ngunurtu nga=na jarri kunyarr-ku
fear-CHAR sister CAT=3SG.S INCH.PRES dog-DAT
'Sister is frightened of the dog.' (McK:112)
(*lit*. 'Sister is a scaredy-cat of the dog.')

7.4 Auxiliary reduction and zero-derivation

Some nominals and preverbs can take verbal inflections directly, without an auxiliary root. It is assumed that their preverbal function is primary and their inflectional ability has resulted from haplology, common in other parts of the grammar (§2.3.6), whereby the auxiliary is deleted. The preverb *yaji-* occurs with and without an auxiliary below.

7.111 *pani-ngku=la* *yaji-pu-ngarrinya*
s/he-ERG=3SG.OBL wait-AUX-NARPST
'He was waiting for him.' (93sen15)

7.112 *panpartaru* *ngarrungaru=ni=ngki* *yaji-ngarrinya* *nyuntu*
MED.PL.ERG person.PL.ERG=3PL.S=2SG.OBL wait-NARPST you.SG
'Those people are waiting for you.' (FKsen21)

The imperative inflection, however, is always attached to a compound (7.113) often with a contracted auxiliary (§8.3.7).

7.113 *yaji-paja* *(*yajiwa=ja)*
yaji-pu-wa=ja
wait-AUX-IMP=1SG.OBL
'Wait for me.' (93sen16)

The auxiliary most commonly affected is *puwa* and conjugation class and valency remains the same as for the compound. The following list shows the preverb on the left, the compound in the centre and the auxiliary-reduced form on the right. All are given with the imperfective aspect.

yaji- 'wait'	*yaji-pungarri*	*yajingarri*
marta- 'build shelter/cover'	*marta-pungarri*	*martangarri*
wirrja- 'put'	*wirrja-pungarri*	*wirrjangarri*
parnta- 'break'	*parnta-pungarri*	*parntangarri*
kari- 'rouse'	*kari-kanarri*	*karinarri*
jil- 'drip'	*jil-tunarri*	*jilunarri*
kati- 'pinch'	*kati-junarri*	*katinarri*

Nominals which commonly function as preverbal elements can also be subject to the same process, which can look like zero-derivation. Only one, *yina-* does not always remain in the same conjugation class as the omitted auxiliary and also undergoes additional phonological change of the stem-final vowel. In the list below, the nominal shown on the left combines with an inflecting verb listed in the centre and is shown, after auxiliary reduction, on the right, inflected with the imperfective.

kala~kala 'running'	*kala~kala-kanarri*	*kala~kalanarri* 'pursue'
kurtiji 'swift'	*kurtiji-yarrinyarri*	*kurtijinyarri* 'run'
yini 'name'	*yini-pungarri*	*yinanarri* 'say name of'

Yinarra may be the result of another process which simply imports loanwords and other types of new verbs into the *-rra* conjugation class with no auxiliary. The particle *kawurtu* 'finish' also occurs as a zero-derived verb in the *-rra* class, giving *kawurturra* 'be quiet'. Many consonant-final preverb loanwords from Yawuru and Nyikina were shown in §7.2.1 as compound verbs in Mangarla through the use of phonologically conditioned bound auxiliaries. However, vowel/semivowel-final ones can take inflections directly. Again, the final one in the list is aberrant as a member of the *-wa* class.

kaw 'call out'	*kawu-rra* 'call out'
tarlaw 'chop'	*tarlawu-rra* 'chop'
jawu 'swim'	*jawu-rra* 'swim'
puw 'blow'	*puyu-wa* 'blow'

A similar process of movement from preverb-to-verb has been noted for other languages such as Walmajarri (Hudson p.c. 1993) and Wambaya (Meakins and Nordlinger 2014:285). However, evidence from synchronic derivational processes in Ngumpin languages suggests that the process is occurring in the reverse direction (Meakins and Nordlinger 2014:285). In Mangarla, movement in both directions occurs with the verb-to-nominal process affecting a number of simple verbs from the *-Ø* class (§8.1.1) which also occur as zero-derived action/manner nominals (§3.2.3). These include *karnti* 'climb', *ngaja/ngaju* 'cry (for)' and *karri* 'stand', and although they can be nominalised by the infinitive in subordinate clauses (§13.3), they can also take certain nominal inflections to function as non-verbal predicates, main (§12.3) or secondary (§12.4). In (7.114) *ngaju* takes the nominal 'characteristic' suffix without first being nominalised, while in (7.115)

karri is shown as a verb but is a zero-derived locative inflected nominal in (7.116). In (7.117) it occurs as both. It is also used as an interjection meaning 'wait a minute', possibly in an extended use of the imperative *karri-Ø* 'stand!'.

7.114 *ngaju-yiti=na kartu*
cry-CHAR=3SG.S child
'The child always cries/ is a crier.' (2sen34)

7.115 *manjarta nga=na karri-nyarri kajalu purnkurr-ja*
trough.coolamon CAT=3SG.S stand-IPFV ahead shade-LOC
'The *manjarta* stands ahead in the shade.' (2R15)

7.116 *mil-kangku, kuwi karri-ngka*
eye-AUX-FUT meat standing-LOC
'He sees the prey standing.' (HTG6)

7.117 *karri-ngka=na karri-nyarri*
standing-LOC=3SG.S stand-IPFV
'He's standing.' (PSan100)

7.5 Reduplication

Reduplication involves repetition in full of a simple verb root (7.118-119), the sole preverbal element of a compound verb (7.120-121) or the nominal stem of an inchoative derived verb (7.122).

7.118 *nyalartarra=pala parti~parti-nya*
PROX.DU=3DU.S go~RDP-PST
'These two kept going.' (MC51)

7.119 *parnta~parnta-ngarri=ni*
break~RDP-IPFV=3PL.S
'They're breaking it into pieces.' (PSh64)

7.120 *wuly~wuly-ju-na nga=yarra=rna ngapa-artu-ju*
wet~RDP-AUX.PST CAT=2DU.EX.S=RR water-COM-ERG
'We splashed ourselves with water.' (2J53)

7.121 *mil~mil-ka-ngku=rna=ngka* *pirti~pirti-ma-nu-karra*
eye~RDP-AUX-FUT=1SG.S=2SG.OBL create~RDP-AUX-INF-MAN
'I will watch you as you are decorating it.' (HTS102)

7.122 *nga=ngarni* *yarlpurru* *jipi~jipi-yarri* *nyalara-ja* *Martuwarra-ja*
CAT=1PL.EX.S lawmate man~RDP-INCH.PRES PROX-LOC Fitzroy.River-LOC

ngayu=rna *Lungkayi-ja*
I=1SG.S placename-LOC
'My lawmates and I go through the Law here on the river, me at Luluigui.'
(1R42)

Reduplication generally indicates the progressive (7.118), iterative (7.119-120, 7.122), or durative (7.121) nature of an event. An atelic activity can be differentiated from a telic one by reduplication (*e.g. pina-marra* 'hear, understand' *cf. pina~pina-marra* 'listen to, think about'). Many such verbs are never found unduplicated (*e.g. kala~kala-rra* 'pursue', *jut~jut-puwa* 'sprinkle over', *purrurl~purrurl-marra* 'boil'). However, at times the significance of reduplication is unclear. Some preverbs always occur reduplicated with no apparent semantic function. (*e.g. jirr~jirr-jurra* 'stand over', *purr~purr-jurra* 'startle', *jit~jit-jurra* 'go tip-toe').

8 Verbal inflection

Inflectional categories on verbs provide information about tense ('the location of an event in time' (Kroger 2005:152)), aspect ('the shape, distribution, or "internal organisation" (Bybee 1985) of the event in time' (Kroger 2005:152) and mood ('a grammatical reflection of the speakers purpose in speaking' (p. 163)). In Mangarla, these inflections take the form of suffixes which divide verbs into three classes. After examining these conjugation classes, their membership and irregularities within this system (§8.1), I will give an overview of the inflectional categories and paradigms (§8.2) before describing the suffixes and their meanings in turn (§8.3).

Finally, certain constructions closely associated with the verb, expressed by modal particles or clitics rather than inflections, will be examined. These include interrogative mood (§8.4), dubitive mood (§8.5), negation (§8.6), and the anticipatory construction (§8.7), which combines mostly with an imperative verb to mark potential propositions deemed undesirable by the speaker, including aversives and admonitives, but also alternates with the non-past irrealis to indicate hypothetical events.

8.1 Conjugation classes

Three conjugation classes are identified. Those referring to McKelson's (1974) data have named these classes *-Ø (*sometimes *-ny)*, *-n* and *-ng* according to the conjugation marker or first phoneme of most inflectional suffixes taken by that class. In this work, for ease of cross-linguistic comparison, verb classes are named according to imperative forms. The three classes are given as *-Ø*, *-rra* and *-wa* respectively, although the *-Ø* class contains some irregular stems.

Table 8.1 shows Mangarla conjugation classes with sample verbs in all regular inflectional categories. One form, marked '?', does not occur in the corpora and is proposed by analogy with others in the paradigm. Stems are shown after any applicable morphophonological processes such as stem-final vowel/segment deletion (§2.3.6) have occurred. This affects the future imperfective where the future morpheme follows the imperfective and the non-past irrealis which attaches to the imperative. The *-Ø* class has two forms of the future depending on the final vowel of the stem. Roots of the *-wa* conjugation ending in /u/ (not shown on Table 8.1) undergo morphophonemic changes in

the past tense (§8.3.3) and when functioning as auxiliaries in compound verbs, in the imperative (§8.3.7).

Table 8.1 Regular verbal inflections by conjugation class

inflection / **class**	***Ø***	***-rra***	***-wa***
PRESent	*parti-Ø*	*ma-n*	*ka-nga*
ImPerfectiVe	*parti-nyarri*	*ma-narri*	*ka-ngarri*
PaST	*parti-nya*	*ma-na*	*ka-nya*
past imperfective (NARPST)	*parti-nyarri-nya*	*ma-narri-nya*	*ka-ngarri-nya*
FUTure	*part-u /kulpa-Ø*	*ma-nku*	*ka-ngku*
FUTure ImPerfectiVe	*?parti-nyarr-u*	*ma-narr-u*	*ka-ngarr-u*
IMPerative	*parti-Ø*	*ma-rra*	*ka-wa*
Non-Past IRRealis	*part-ayi*	*ma-rr-ayi*	*ka-w-ayi*
PaST IRRealis	*parti-ma*	*ma-nta(ma)*	*ka-ngka(ma)*
ImPerFectiVe PaST IRRealis	*parti-nyarri-ma*	*ma-narri-ma*	*ka-ngarri-ma*
INFinitive	*parti-nyu*	*ma-nu*	*ka-ngu*

Similar conjugations classes are widespread among Pama-Nyungan languages and many of the roots in Mangarla also appear in the same class in other languages, such as the Western Desert and Ngumpin-Yapa groups. However, all of these have more classes than Mangarla and many members of Mangarla's *-rra* class fall into two or three classes in its neighbours, where the *-rra* conjugation primarily contains monosyllabic verbs which are also used as auxiliaries. Western Desert languages generally have four classes (Jones 2011:182) as do Nyangumarta and Karajarri. The large *-la* imperative and smaller *-rra* imperative classes in these have converged in Mangarla, expanding its *-rra* class. Ngumpin languages to the north-east have five classes (Walmajarri - Hudson 1978:37), Bilinarra, Gurindji - Meakins and Nordlinger 2014:272) or six in the case of Jaru (Tsunoda 1981:77). However, as with Nyangumarta, some of these contain only a few members, cognates of which again have been assigned to Mangarla's expanded *-rra* class,

to which many of its most productive auxiliary verbs also belong. So, while the conjugation classes in Mangarla are largely comparable to those of its neighbours, it has a reduced number of classes, has no retroflex nasal/lateral conjugation marker which is prominent in other languages of the region, and has no classes with one or two members. Inflectional variations in a class are either phonologically motivated (as shown in the Ø class in Table 8.1), or have irregular stem changes as described in §8.1.4.

Table 8.2 indicates the number of simple verbs in each of the conjugation classes relative to their basic valency. Bivalent verbs have been split into two classes according to the function of the non-subject argument. Transitive verbs take a direct object (§11.3.5), while semitransitives select an oblique (§11.3.6). The *-rra* class contains four additional inflecting verbs, not shown, which never occur without a preverbal element.

Table 8.2 Simple verb numbers by conjugation class and valency

class / valency	*-Ø*	*-rra*	*-wa*	total
monovalent	9	14	1	24
bivalent semitransitive	2	4	2	8
transitive	2	41	7	50
trivalent			1	1
total	13	59	11	83

Numbers given in Table 8.2 are compiled from both corpora and are approximations since most verbs can take an optional oblique argument and others have alternative argument structures (*e.g.* verbs of percussion are generally transitive but as conatives are semitransitive - §11.3.6). A few have been elicited in more than one class with no semantic difference, and others occur only once in a context where it is impossible to determine argument structure (§11.3.1). Some verbs identified by McKelson (1974) have also been reanalysed here as compounds. Of course, the total number of verbs in each class is vastly expanded by the use of compounds (§7.2).

The larger *-Ø* and *-rra* classes are open while the *-wa* class seems to be closed to new members. In the discussion which follows, examples of both simple and compound verbs are given.

8.1.1 *-Ø* class

Twelve of the thirteen mono-morphemic roots in *-Ø* class are disyllabic. The other is *katiyarri* 'run'. Most are intransitive, some able to add an optional oblique as extended intransitives (§11.3.4). Only two members are transitive *kampa*[27] 'burn', *wira* 'shoot/grind'. The semitransitive *ngaja/ngaju* 'cry(for)' and *karnti* 'climb (on)' have also been elicited as intransitives.

Verbs in this class mostly encode physical movement (*purta* 'come', *parti* 'go', *puka* 'appear', *pungka* 'fall', *karnti* 'climb', *kulpa* 'come back', *katiyarri* 'run') and states (*karri* 'stand', *wanti* 'be/stay', *jarri* 'be/become'), but also other activities such as the bivalent verbs just mentioned. Most verbs used in copula constructions (§12.1), including the inchoative (§7.3), belong to this class; one, *wanti* 'be' has an irregular stem (§8.1.4). McKelson (1974) also places the verb *kurnta* 'eat, swallow' in this conjugation with similar stem changes to *wanti*, but most examples in the Jarlmadangah corpus place it in the *-rra* class (§8.1.2). Some verbs from this conjugation are used as zero-derived action/stative nominals (§7.4).

8.1.2 *-rra* class

Most mono-morphemic roots in class *-rra* are disyllabic; three are trisyllabic and four are monosyllabic (*ma-* 'get', *ya-* 'go', *ka-* 'do' and *yu-*'tell'). With around 59 members, the *-rra* class is the largest of the three. This is probably due to the convergence of one or more classes found in neighbouring languages which contain cognate roots. It also contains the auxiliaries most productive in creating new compounds including five bound auxiliaries (*-ju-, -tu-, -pu-, -ku-* and *-yi-*) which are excluded from Table 8.2 as they never occur without a preverb. Their characterisation as bound auxiliaries rather than as suffixes is discussed in §7.2.1.

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[27] This verb is not widely used (only one speaker uses it in this corpus) and may be borrowed from neighbouring languages where it is more common, such as Walmajarri or Nyangumarta.

The majority of members of this class are transitive. Semantic domains it contains include verbs of speech and sound utterance (*marrarra* 'say, speak', *kawurra* 'call out', *yinparra* 'sing', *yiparra* 'argue', *yinarra* 'name', *ngurrjarra* 'discuss/talk about', *japirr-marra* 'ask for'), physical movement (*yarra* 'go', *nguwirra* 'return' *jiyarra* 'follow', *wanyjarra* 'leave' *kurntirra* 'enter', *wurtarra* 'flow', *kurtiji-karra* 'chase') and stance and states (*kaparra* 'sit', *kurrka-yirra* 'arise', *wirrirra* 'ache', *wilkarra* 'open, flex', *waku-marra* 'hide', *purrpurr-jurra* 'startle'), verbs of manual manipulation (*kantirra* 'hit', *muk-kurra* 'club', *kanyirra* 'mix', *lajurra* 'dig', *marra* 'get', *yarrkarra* 'throw', *jurrungkul-marra* 'show', *kari-karra* 'rouse', *witij-jurra* 'dig', *tarlawurra* 'chop', *jurrarra* 'pour'), bodily functions (*kurnarra* 'ingest', *pajarra* 'bite', *pujurra* 'fart', *yampirra* 'embrace', *parnti-marra* 'smell') and mental and perceptive processes (*pap-purra* 'forget about', *warrirra* 'look for, seek', *pirirra* 'look for, seek', *ningarra-karra* 'believe', *pina-marra* 'hear/understand/think', *liyani-karra* 'desire', *puturirra* 'require').

8.1.3 *-wa* class

The *-wa* class contains around eleven mono-morphemic roots, of which four are monosyllabic and seven disyllabic. All four monosyllabic stems (*pu-* 'hit', *yu-* 'give', *ka-* 'carry' and *nya-* 'see') function as simple verbs as well as combining with preverbs to form many compound verbs.

These figures include four disyllabic roots which occur both as simple verbs taking inflectional suffixes from this class and as preverbs combined with the auxiliary *pu-wa* in compounds (§7.4). Two of these, *parnta* 'break' and *wirrja* 'put' are also recorded as simple verbs in the *-rra* class (§8.1.4).

This class consists almost totally of transitive members, although *yaji-(pa)* 'wait' and *marta-(pa)* 'cover' are semitransitive and two verbs, *yuwa* and *yita-kawa* both meaning 'give', are ditransitive. Members encode actions of force (*yinpuwa* 'spear', *puwa* 'hit', *puyuwa* 'blow', *larr-puwa* 'split', *kati-puwa* 'cut', *makurr-puwa* 'beat a path', *parnta-(pi)* 'break', *panawa* 'skin'), manual activities encoding a change of position or state (*wirrja-(pa)* 'put', *yuwa* 'give', *kawa* 'carry', *kurlili-puwa* 'turn over', *yita-kawa* 'give'); perception or cognitive processes (*nyawa* 'see', *mil-kiya* 'see', *nila-yuwa* 'teach', *nganga-nyawa* 'forget/lose') and compound verbs encoding speech (*mininy-pa* 'speak', *jakurl-kawa* 'report').

8.1.4 Irregular and multi-category verbs

Some verbs are recorded in more than one class by both McKelson and myself on different occasions. There may be several reasons for this. Firstly, there may be a corresponding change of meaning, as in Martuthunira (Dench 1995:139). One possible Mangarla example is *ngaja-Ø* 'cry', *ngaja-rra* 'defecate', although the final vowel is often raised in the former to *ngaju-*, possibly as an additional means of differentiating the two, which both seem to relate to bodily discharges. However, they may simply be homophonous verbs with different meanings. Secondly, a change of class may indicate a change in transitivity, as in Nyangumarta (Sharp 2004:163). In Mangarla, the simple verb *parnta-* 'break' belongs to the *-rra* class when used intransitively, but in the *-wa* class when transitive. As a compound of the *-wa* class, *parnta(-pu)-* 'break', it is always transitive. Both criteria apply to *ngaja-* if this analysis is correct.

Other verbs consistently show irregularities. Some members of the *-wa* class have irregular imperative inflections when functioning as auxiliaries in compounds (§8.3.8). As noted in §8.1.3, the verb *wirrja-* 'put' is found conjugated in both *-rra* and *-wa* classes, often by the same speaker, and with the same inflection. As one of the compounds subject to auxiliary reduction (§7.4), this verb is clearly in a state of flux, and used without an auxiliary may be pulled in two directions, conjugating like the auxiliary in the *-wa* class as other verbs do, or moving into the large open *-rra* class like most borrowed preverbs (§7.4). Another verb which appears to be changing classes is *kurna* 'ingest', discussed below.

Two verbs from the *-Ø* class occur with a variation in the stem. These introduce an internal alveolar stop in certain inflectional categories, as shown in Table 8.3.

The stem *wani-* 'be' is used with overt inflectional suffixes but *wanti* is used with inflectional categories which have no overt marking or which begin with a vowel. These include the imperative, irrealis moods, present and future tenses. Some speakers in both corpora also use the *wanti* stem for other tenses, often with the disapproval of others.

The second verb displaying stem variation, *kurna-* 'ingest', is irregular in other ways too. It is not unusual for the verb *nga-* 'eat' to be irregular in Australian languages (Sharp 2004:166), split across two conjugation classes according to the inflectional category in

some, including Wangkajunga (Jones 2011:188) and Nyangumarta (Sharp 2004:166). While the Mangarla stem is not cognate with this proto-Pama-Nyungan form, it is, however, highly irregular. McKelson (1974:136) records *kurna-* clearly as belonging to the *-Ø* class with a similar stem alternation to *wani*, shown in Table 8.3; *kurnta* is used for the imperative, present and future inflections. A few speakers in the Jarlmadangah corpus also use these forms some of the time but at others, follow most of their peers and conjugate it as a regular verb of the *-rra* class.

Table 8.3 Irregular verbs by conjugation

verb / **inflection**	***wani-* 'be'**	***kurna-* 'ingest'**
present	*wanti*	*kurnta*
imperfective	*waninyarri*	*kurnanyarri*
future	*wantu*	*kurnta*
past	*waninya*	*kurnanya*
narrative past	*waninyarrinya*	*kurnanyarrinya*
imperative	*wanti*	*kurnti(ya)*
non-past irrealis	*wantayi*	*kurntayi*
past irrealis	*wantima*	*kurnama*
infinitive	*waninyu*	*kurnanyu*

8.2 Inflectional categories

The inflectional categories distinguished in Mangarla are presented in Table 8.4. Modal distinctions, such as interrogative, assertions of truth, doubt, anticipation or expectation are made using clitics, particles or intonation rather than verbal inflections. However, the grammar distinguishes between the imperative, realis (unmarked) and irrealis moods with realis clauses marking a greater range of tense and aspect marking than those in irrealis mood, which only distinguish past from non-past events.

Three tense distinctions are made in realis mood: present, past and future. These are generally neutral with respect to aspect although it may be argued that past and future tense verbs have a perfective reading, in that they present 'the event as a single, unanalyzable whole, ignoring the stages which make up that event' (Kroeger 2005:155). They are distinguished from ongoing events in the same temporal contexts by absence of the imperfective marker, which can precede the past or future tense, or past irrealis markers. Past imperfective consists of the past tense marker added to the imperfective. This also performs a past habitual function in historical narratives, called here the narrative past (NARPST). With no added tense marker, imperfective aspect signals habitual or progressive acts in the present. The infinitive is part of the inflectional paradigm and is used in clause chain constructions and as a nominaliser to which complementiser suffixes can be added in subordinate clauses (§13.3).

Table 8.4 Verbal inflections

	past		**present**		**future**		**infinitive**
realis	PST	NARPST	PRES	IPFV	FUT	FUTIPFV	INF
irrealis	PSTIRR	IPFVPSTIRR	NPIRR				
imperative							

Tense, aspect and mood inflections are generally analysable as separate morphemes. No more than two inflectional categories co-occur, always in the order aspect>tense/mood. In the unmarked realis mood, imperfective aspect combines with tense, in past irrealis, it can precede the portmanteau tense/mood morph. However, the non-past irrealis mood marker is added to the imperative and does not distinguish aspect. The imperative and irrealis inflections are also prerequisite for the anticipatory construction (§8.7) and negated clauses (§8.6) respectively.

8.3 Inflectional suffixes and their meanings

The following sections examine the meaning of the inflectional suffixes outlined in Table 8.4, beginning with those of the realis system: referring to present time - present tense (§8.3.1), imperfective aspect (§8.3.2); those with past time reference - past (perfective) tense (§8.3.3), narrative past (§8.3.4); and those with future time reference - future

(perfective) tense (§8.3.5) and future imperfective (§8.3.6). Imperative mood is examined in §8.3.7 and inflections in irrealis mood follow. These indicate that an event has not, is not or will not occur. The distinction between present and future is neutralised in irrealis and these non-past irrealis (§8.3.8) events are differentiated from those which were unfulfilled in the past: past irrealis (§8.3.9) and imperfective past irrealis (§8.3.10). As in neighbouring Walmajarri (Hudson 1978) and the non-Pama-Nyungan Nyulnyulan languages to the north (McGregor and Wagner 2006), negative clauses are the most common types of irrealis clause. The infinitive is examined in §8.3.11.

8.3.1 *-Ø, -n, -nga* (PRES) present tense

Present tense is inherently imperfective describing a current state or event in progress at the time of speaking (8.1), including those in a picture (8.2), and habitual behaviours or immediate intentions (8.3). In this chapter, the symbol *-Ø* is used to indicate zero-marking in the *-Ø* class.

8.1 *ngapa=na pungka-Ø janyja*
water=3SG.S fall-PRES today
'It's starting to rain.' (*lit.* 'Rain falls now.') (G70)

8.2 *kuwi=na mil-ka-nga*
meat=3SG.S eye-AUX-PRES
'He sees the prey.' (PSh38)

8.3 *yala=nya=na paja-n kunyarr-ju wurna*
DIST=1SG.O=3SG.S bite-PRES dog-ERG move.off
'That dog walking around over there bites me.' (2R43)

It marks states and locations which are current or accepted truths. In (8.6), the speaker is explaining the nature of soak water.

8.4 *lakapa=na jultu-n*
fat=3SG.S melt-PRES
'The fat has melted.' (A60)

8.5 *Yitulan, kara=na wanti-Ø Yitulan marri marrkartu*
placename(E) west=3SG.S be-PRES placename(E) far young.sibling
'She is in Hedland, a long way to the west, my little sister.' (1J147)

8.6 *pirna~pirna=na wanti-Ø kaniny~kaniny-ja*
clean~RDP=3SG.S be-PRES below~RDP-LOC
'It is clean deep down.' (1J66)

In historical narratives, present tense is used in direct speech referring to a situation current at the time of the speech. In (8.7), the speaker is quoting his words to a mate before he was killed by a crocodile decades before the retelling. That example is introduced earlier by the past tense speech verb *jangku-mana* [answer-AUX-PST], but a historical present can be used to make events more vivid. Sentence (8.8) comes from a narrative about when the speaker was a boy first-come to the river country never having seen sheep.

8.7 *ngujartu kuli-yiti-ju=na wajili-pu-nga kamurra palma*
REC anger-CHAR-ERG=3SG.S hang.around-AUX-PRES uncertain creek
'That aggressive one might be hanging around the creek.' (FK89)

8.8 *ngantu nyaltu nga=rna marra-n*
what PROX CAT=1SG.S say-PRES
'"What's this?" I say.' (1R118)

8.3.2 -nyarri, -narri, -ngarri (IPFV) imperfective

The imperfective suffix added to a verb root without further inflection has a progressive interpretation relevant to the time of speech.

8.9 *parti-nyarri=ni wurna=lpiny nyaltu*
go-IPFV=3PL.S move.off=first PROX
'First, they are travelling, here in this one.' (PSh6)

8.10 *nga=rna marra-narri Mangarla*
CAT=1SG.S say-IPFV Mangarla
'I'm speaking in Mangarla.' (1R76)

The imperfective can indicate that a process started in the past is not yet complete. In (8.11) the invitation has been issued but not yet acted upon. Thus, the event is not complete and the verb is in the imperfective to signal its relevance to the present moment.

8.11 *pantarti ngarrungarti nga=na=ja manyja-pu-ngarri*
MED.PL person.PL CAT=3SG.S=1SG.OBL invite-AUX-IPFV

purta=rna Jitini-karti
come.FUT=1SG.S placename(E)-ALL
'Those people are inviting me to go to Sydney.' (A3)

The imperfective is one way of achieving a continuous imperative reading (§8.3.8).

8.12 *ya-narri wurna*
go-IPFV move.off
'Keep going!' (A91)

McKelson (1974) analyses the imperfective as the present tense, with which it overlaps. However, past and future tenses can further augment this suffix (§8.3.4, §8.3.6), as well as the past irrealis (§8.3.10).

8.3.3 *-nya, -na, -nya* (PST) past tense

The past tense marks events which have been completed at the time of utterance. These may have been on-going or habitual states or events which are now finished (8.13, 8.16) or one-off and punctual activities (8.14). They include events which are only recently completed and still relevant to the present moment (8.15), and those which occurred decades earlier (8.13).

8.13 *ngayu, pirra-ngka nga=rna wani-nya*
I bush-LOC CAT=1SG.S be-PST
'Me, I lived in the bush.' (1M3)

8.14 *wayi=n ma-na kuwi ngaliyarra-kura.*
Q=2SG.S get-PST meat you&I-GEN
'Did you get meat for us?' (G127)

8.15 *kulpa-nya, kulpa-nya=wu*
come.back-PST come.back-PST=EMPH
'I've come back. I'm back!' (G126)

Roots of the *-wa* conjugation ending in /u/ undergo regressive assimilation of the final vowel induced by the palatal consonant in the past tense morpheme (§2.3.4). Hence, *pu-nya > pinya, yu-nya > yinya etc*.

8.16 *makurr-pinya=pala panartarra*
path-AUX.PST=3DU.S MED.DU
'Those two went up and down the countryside.' (Nya46)

8.3.4 -nyarrinya, -narrinya, -ngarrinya (NARPST) narrative past

The narrative past tense is formed when what is the past tense marker for two of the three conjugations, *-nya*, is added to the imperfective. Its form is frequently shortened by eliding the two central syllables /arri/ to give alternative forms *-nyinya, -ninya* (8.19) and *-nginya*. Some speakers do not recognise this practice as correct, even though they all do it to greater or lesser degrees.

The narrative past performs several functions. Its primary use is to mark an ongoing state or an event that was continuing over a period of time in the past (past progressive). Such events are framed by the context in which they occur, usually as an episode within a larger narrative set in the past, and have no current reference.

8.17 *ngayu-ngku=rna=palangka ngijakura kaka-pa ngunyarri*
I-ERG=1SG.S=3DU.OBL I.GEN uncle-and aunt

ngaja-nyarrinya
cry-NARPST
'I was crying for my uncle and aunt.' (1M56)

8.18 *marnin-kura=pala ka-ngarrinya panartarra-ju*
woman-GEN=3DU.S carry-NARPST MED.DU-ERG
'Those two were carrying women's business.' (Nya76)

Characteristic and habitual actions performed in the past are also maked by the narrative past.

8.19 *yakarnu-karra=ngarni-ya wakurr-ma-ninya*
thus-MAN=1DU.EX.S-EP dig-AUX-NARPST
'We used to dig like so.' (2R9)

8.20 *muku-narrinya=rna=ja ngayu-ngku wipirti-ju,*
club.AUX-NARPST=1SG.S=1SG.OBL I-ERG small-ERG

wipirti-marta-ju manga-ngku
small-CPR-ERG girl-ERG
'I would kill (meat) for myself even as a small girl.' (2J16)

However, as the form most commonly employed in narratives set in the past, it is used together and interchangeably with the simple past tense, for both progressive and punctual events. A change from one to the other has a discourse function of reframing the context of the events. In (8.21a, as in 8.13) the speaker uses simple past tense to refer to a period of many years' duration, but it is framed in reference to the present time of the utterance as complete. However, she follows on in (8.22b) using the narrative past tense, accompanied by a change of intonation. This has the effect of reframing the events with a focus on the time of the discourse.

8.21 *a) ngijakura-ju kaka-ngku nga=na=nya waji-ma-na*
I.GEN-ERG uncle-ERG CAT=3SG.S=1SG.O keep-AUX-PST

wipirti manga ngayu
small girl I
'My uncle looked after me. I was just a little girl.' (1M7-8)

b) yurayit pantangkaju wani-nyarrinya=ngarni
alright(K) after.that be-NARPST=1PL.EX.S

pirra=ngarni ya-narrinya kartiyarti ningarra=wun
bush=PL.EX.S go-NARPST child.PL true=WELL
'So, we used to stop there and as children we would go round in the bush, true.' (1M9alt)

In (8.22), the speaker is describing events depicted in a graphic story. She reiterates her observation but uses past tense the second time rather than the narrative past of the first clause. This reflects a change in her focus, with the effect of summarising the event as complete before moving on to the next picture and next event.

8.22 *a) nyaltangkaju, nyaltu=na mil-ka-ngarrinya*
from.now PROX=3SG.S eye-AUX-NARPST
'So, she was looking at this one.' (PSh9)

b) nyaltu=na mil-ka-nya
PROX=3SG.S eye-AUX-PST
'She saw this one.' (PSh10)

8.3.5 *-Ø , -u, -nku, -ngku* (FUT) future, hortative

Future tense marks an event that someone intends to perform or that is likely to occur at a time after the moment of speech.

8.23 *ya-nku=rna ngapa-karti wirli~wirli-yartu*
go-FUT=1SG.S water-ALL fishing.line~RDP-COM
'I'm going to the river with a fishing line.' (G119)

8.24 *paka=rna parnta-pu-ngku*
stick=1SG.S break-AUX-FUT
'I will break the stick.' (2sen144)

The form of *-Ø* class verbs varies according to the stem-final vowel, where /i/ > /u/, (8.25, 8.27) but /a/ remains unchanged, making future tense formally identical to the present and the imperative *-Ø* (8.26).

8.25 *kurtiji panjurn nga=na karntu*
swift wood CAT=3SG.S climb.FUT
'He will climb the tree running.' (HTG12)

8.26 *warrimpa=la=la kulpa-Ø, nyalartu*
by&by=1PL.IN.S=3SG.OBL come.back-FUT PROX
'Soon we'll come back to it, this one here.' (HTG68)

Future tense also expresses hortatives (where the subject is first person non-singular (8.27)), optatives (with third person subjects (8.28)) mild imperatives or recommendations to second person addressees (particularly in instructional texts (8.29)), and inceptives, usually with the temporal 'now' (8.30).

8.27 *ayi partu katiyarru katiyarru=la*
hey go.FUT run.FUT run.FUT=1DU.IN.S
'Hey, let's go. We must run.' (HTD98)

8.28 *milganguninyiya*
mil-ka-ngku=ni=nyi-ya
eye-AUX-FUT=3PL.S=1SG.O-EP
'Let them look at me, (they got to look at me).' (McK:RT)

8.29 *ma-nku=n nurrkurl ngapa-ngku-ka-nku=n*
get-FUT=2SG.S red.ochre water-ERG-AUX-FUT=2SG.S
'Get some red ochre and make it wet.' (HTS72-3)

8.30 *nyurra-ngku=nyurra kurna-nku janyja*
you.all-ERG=2PL.S ingest-FUT today
'You lot are starting to eat now.' (G68)

Future tense verbs are a very common host of the modal clitic *=rtiny*, tentatively glossed 'expectation' because it often indicates an underpinning mental state or expectation about the information contained in the proposition. This may be held by participants internal or external to the clause, including the speaker, but at the same time, the speaker distances themself from a commitment to the veracity of the proposition or control over its fulfilment. In contrast to future tense propositions without the clitic, those with it express apparent intentions or beliefs, often translated as desired or projected outcomes.

8.31 *manyja-pinya=ni=ji ya-nku=rtiny nga=rna Jitini-karti*
ask-AUX.PST=3PL.S=1SG.OBL go-FUT=EXPECT CAT=1SG.S placename(E)-ALL
'They asked me to go to Sydney. They reckon I gotta go.' (G6)

8.32 *yangka-ngu=nyurru karti-ma-nku=rtiny*
behind-ABL=2PL.S hold-AUX-FUT=EXPECT
'(They said) You mob have to grab him from behind.' (FK59alt)

8.33 *panara-ja nga=rna wantu=rtiny*
MED-LOC CAT=1SG.S be.FUT=EXPECT
'I would like to live there.' (G39)

8.34 *jakart-tu-n nga=na ma-nku=rtiny*
sneak.up.on-AUX-PRES CAT=3SG.S get-FUT=EXPECT
'He sneaks up on it ready to get them.' (PSan87)

8.35 *nyarlu=ni-ya yita-ka-ngarrinya wulyu=ni wantu=rtiny*
dead=3PL.S-EP give-AUX-NARPST good=3PL.S be.FUT=EXPECT
'They gave him to the devil-devil; so that they would stay well.' (H4)

8.3.6 *-nyarru, -narru, -ngarru* (IPFVFUT) imperfective future

One speaker provides examples of what is analysed as an imperfective future, in both the *-rra* and *-wa* conjugation classes. This consists of the imperfective suffix followed by an abbreviated future marker *-u*. No examples from the *-Ø* class are attested but the form *-nyarru* is postulated on the basis of the imperfective form. This inflection is not used by McKelson (1974) nor other speakers. In fact, one speaker rejected the examples given here as valid.

Most examples occur in descriptions of processes, some occurring at the time of speech (8.36-37) and others in hypothetical projections (8.38-39). They indicate that the action will be carried out in the future with a focus on the process rather than an end point, or as a habitual action in the future.

8.36 *yakarnu-karra nga=n-nga jani-ma-narru*
thus-MAN CAT=2SG.S-EP cook-AUX-FUT
'This is the way you cook it.' (HTD23)

8.37 *kurtayi-narru=n-nga yakarnartu-karra*
mix-FUT=2SG.S-EP thus-MAN
'You gotta keep stirring it, like this.' (HTD25alt)

8.38 *ningarra wanyjirra-pa nga=na=la paya-pu-ngarru*
true other-and CAT=3SG.S=3.SG.OBL burn-AUX-IPFVFUT
'It will keep cooking the other one for him.' (HTG59)

8.39 *pantangkaju kurrka-yi-nu-ng-karra-ka-ngarru=na wanyjirra-karti*
after.that rise-AUX-INF-EP-MAN-AUX-IPFVFUT=3SG.S other-ALL

ngapa
water
'After that he will pack up and keep moving to different waterholes.'
(HTG186)

8.3.7 *-Ø, -rra, -wa* (IMP) imperative, (HAB) habitual

The imperative is a non-declarative speech act used for commands, instructions, and strong requests or suggestions. These are usually aimed at the hearer or hearers but may have a first person subject when functioning as a hortative in variation with the future tense (§8.3.5). The imperative conveys a sense of urgency not present in the future construction.

8.40 *kanka-ngu parti-Ø, parti-Ø=pala*
top-ABL go-IMP go-IMP=DU
'Go from up here! You two go!' (2J46)

8.41 *yu-wa=nya mangarri.*
give-IMP=1SG.O veg.food
'Give me food!' (A4)

8.42 *kawurtu-rra=la*
finish-IMP=1PL.IN.S
'Let's keep quiet!' (G60)

Mangarla has no dedicated imperfective imperative suffix and such an interpretation can be achieved by the imperfective (§8.3.2).

8.43 *mil-ka-ngarri-ya*
eye-AUX-IPFV-EP
'Keep on looking!' (A90)

Compounds formed with mono-syllabic auxiliary verbs of the *-wa* class are subject to morphophonemic processes described in §2.3.6 resulting in contracted forms in the

imperative. This is a regular process for compounds with the *pu-* auxiliary where *pu-wa* becomes *pa* in some compound verbs (*e.g. yaji-pa* 'wait!' *mininy-pa* 'talk!*' wirrja-pa* 'put it!' and 8.45). In others, *ka-wa* becomes *ki,* after the vowel has assimilated regressively to the epenthetic *-ya,* which always occurs with these compounds. However, another verb which is never found with this augmentation, *parnta-pu-wa* [break-AUX-IMP] also becomes *parnta-pi* 'Break it!'

8.44 *kati-pa pantu panjurn*
kati-pu-wa pantu panjurn
cut-AUX-IMP MED wood
'Cut down that tree.' (HTS57)

8.45 *mil-ki-ya*
mil-ka-wa-ya
eye-AUX-IMP-EP
'Look!' (G117)

The use of the epenthetic *-ya* (§2.3.5) with imperative verbs, as seen in (8.45-46) may be triggered by the presence of the plural pronominal clitic *=yi*, which is difficult to distinguish phonologically in this context and is rarely given in translations. Example (8.50) illustrates the unambiguous use of the plural clitic and epenthetic elements together.

8.46 *wurna~wurna kurrka-yi-rra(-yi)-ya*
move.off~RDP rise-AUX-IMP(-PL)-EP
'Let's go for a trip. Get up (?you lot)!' (PSh34)

Pronominal clitics in imperative constructions, where required, are attached directly to the verb (8.41-42, §6.1.1.1). Subject NPs are also generally omitted, but can be included.

8.47 *nyumpala-ju kanti-rra=pala*
you.2-ERG hit-IMP=2DU.S
'You two hit it.' (FKsen54)

The directional clitics *=rra* 'away' and *=rni* 'toward' are largely found on directional terms, but they are also associated with verbs of motion and transport in the imperative, where they indicate movement in a direction relative to the speaker.

8.48 *ka-wa=rni ngayu-karti mili~mili*
take-IMP=toward I-ALL paper~RDP
'You lot bring paper here to me.' (2sen218)

8.49 *ya-rra panartarti=rra*
go-IMP MED.PL.DAT=away
'Go over to them.' (93sen53)

Another clitic commonly attached to imperatives is *=wu* 'emphatic'.

8.50 *kurna-rra=yi-ya=wu*
ingest-IMP=PL-EP=EMPH
'Eat you lot!' (2sen93)

Negative commands (admonitives) are formed with the negative particle (§8.6) and the anticipatory clitic (§8.7), which follows the imperative inflection plus BP clitics. The imperative plus the anticipatory clitic combination also has aversive and hypothetical interpretations. The imperative inflection is also the base for the non-past irrealis suffix (§8.3.8).

8.3.7.1 Habitual use of imperative

When the subject of an imperative verb is expressed by an NP with third person reference, it has a habituative sense, describing customary behaviour.

8.51 *kunyarr-ju kurna-rra kuwi*
dog-ERG ingest-HAB meat
'Dogs eat meat.' (2sen37)

8.52 *nyaltu=na=ngka yarrkal jarrampa kurna-rra*
PROX=3SG.S=2SG.OBL hunting cherrabin ingest-HAB
'Fish eat cherrabin for bait.' (2sen42)
(*lit*. 'This one eats cherrabin for you when you're fishing.')

This use is not common and may be influenced by Warnman, a southern neighbour where homophonous suffixes are used for both the imperative and past habitual (Burgman 2010:80). However, in Mangarla, it is never used with reference to past events as it is in Warnman, where it performs a similar function to the narrative past in Mangarla. The more common way to express habitual behaviour in Mangarla is with the present tense (§8.3.1), as in the next example, which refers to the class of kangaroos.

8.53 *yuka=na* *kurna-n*
grass=3SG.S ingest-PRES
'It eats grass.' (3sen36)

8.3.8 *-ayi* (NPIRR) non-past irrealis

The non-past irrealis suffix *-ayi* is added to an imperative-inflected verb to indicate that an event is non-actualised at the present time. It is homophonous with the imperative verb marked for a plural subject, but is used with subjects of all persons and number. Both are variously pronounced as [ai^{y}] and [ei^{y}]. In this section, it is shown separated from the imperative inflection but elsewhere is generally written as a single inflection.

Unlike events marked with future tense which are intended and expected to be carried out, the fulfilment of those in the non-past irrealis remains a mere potentiality and may be uncertain, unrealistic or irrelevant. It can express events which are hypothetical projections, obligations, desires, or abilities and interpretation often varies according to the context. Irrealis is also selected by most speakers in negative propositions (§8.6).

McKelson (1974) characterises the suffix as the 'desiderative'. He comments that 'The first indication that this tense existed, was in the sentence, "I want to be like him,"' (McKelson 1974:38). In (8.54) *wantayi* is translated 'want to be' but the translation in brackets below the original is offered as an alternative, consistent with the non-past irrealis analysis.

8.54 *ñayu na* *wandayi* *bani waliny*
ngayu=rna *wanti-Ø-ayi* *pani-waliny*
I=1SG.S be-IMP-NPIRR s/he-SEMB
'I want to be like him.' (McK:38)
(?'I would/should be like him.')

8.55 *yuwayina*
yu-wa-ayi=rna
give-IMP-NPIRR=1SG.S
'I like to give.' (McK:38)
(?'I should/could give.')

Examples from that work also express unrealised events that are less than desirable but not imminent. In (8.56) an alternative translation is again given which stresses the potentiality of the event.

8.56 *gunyar badyanudi, ṉunudu ṉana rain darai*
kunyarr paja-nu-yiti ngunurtu nga=na rayin-tarri-Ø-ayi
dog bite-INF-CHAR sister CAT=3SG.S fear-INCH-IMP-NPIRR
'The dog is so vicious that it frightens sister'. / (McK:53)
(*lit*. 'The dog is a biter (and) sister *might* become frightened.')

The alternative translations given above reflect those commonly given in the Jarlmadangah corpus, that an unrealised event 'might' or 'can' occur, and rarely entails negative consequences, or they are not a primary concern, unlike those which employ the anticipatory clitic (§8.7). In (8.57-58) the capacity or ability to carry out an act is indicated, without a judgement of desirability or otherwise.

8.57 *paja-rra-ayi-ya=rna*
bite-IMP-NPIRR-EP=RR
'(That dog) can bite himself. / (Those dogs) might fight.' (2R44)

8.58 *pantu mininy ngurrja-rra-ayi japurru-purru mapu~mapu*
MED language talk.about-IMP-NPIRR straight-PURP good~RDP
'Somebody can tell you about the correctness of those words.' (2D41)

Conditionality, with desirable or undesirable consequences, may be expressed by two apposed clauses in future tense (McKelson 1974:51), but often at least one will employ the non-past irrealis (both protasis and apodosis in (8.59), apodosis of (8.60) and protasis in (8.61)). The anticipatory clitic may also be used to express an unrealised act, usually to be avoided, as in the second clause of (8.61 - see §8.7 for a discussion of the overlapping use of these two moods).

8.59 *ñayu ngu na wadyimarai wangu, moter car na marai*
ngayu-ngku=rna waji-ma-rra-ayi warnku, murtika=rna ma-rra-ayi
I-ERG=1SG.S keep-AUX-IMP-NPIRR stone car(K)=1SG.S get-IMP-NPIRR
'I like to get money, I like to get a moter (*sic.*) car.' /
'If I get the money, I'll get a moter (*sic.*) car.' (McK:52)

8.60 *nyuntu nga=nga=rna kanti-rra-ayi kanti-nku*
you.SG CAT=2SG.O=1SG.S hit-IMP-NPIRR hit=FUT
'I might hit you (back), if you hit me.' (MW:nbkA67)

8.61 *kamurra wanti-Ø-ayi kuli-yangka nguju=lparri*
uncertain be-IMP-NPIRR anger-SRC REC=ASSERT

wayitpal pu-ngarri nga=ni=iny=kulu yakarntu-karra
whitefella(E) hit-IPFV CAT=3PL.S=3PL.O=ANTIC thus-MAN
'If they stop here they might go around killing whitefellas out of anger, you know, like before.' (Ngi46)

In the majority of tokens (69% of those from Jarlmadangah, and about 61% from McKelson 1974), the non-past irrealis is used with a negative particle. These focus on the counterfactual nature of the event at the time of the utterance rather than its potential fulfilment. Negation is examined in §8.6.

8.62 *wadyari na gandai giridi*
wajarri=na karnti-Ø-ayi kirriti
NEG=3SG.S climb-IMP-NPIRR moon
'The moon hasn't risen.' (McK:118)

8.3.9 *-ma, -nta(ma), -ngka(ma)* (PSTIRR) past irrealis

Past irrealis marks counterfactual events which may have been possible in the past but which did not occur. These can be accompanied by the negative particle (§8.6) or not. McKelson (1974:34) records two forms for the *-rra* and *-wa* classes: base forms (*-nta* and *-ngka*) and optionally augmented forms (*-ntama* and *-ngkama*). The augment on the alternative forms is identical to the past irrealis marker for the Ø verb class and may be added by analogy. McKelson (1974:34) notes that 'it is hard to formulate a rule' for when

each is used, although concludes that the short form is used in negative clauses while the augmented form is used without the negative particle to indicate unfulfilled intention. Hence, *wajarri manta* [NEG take-*nta*] 'didn't take' but *mantama* [take-*ntama*] 'going to take but did not'. However, this distinction is not borne out in his data where most examples contain unaugmented forms, including many without the negative particle, and some negated clauses employ the augmented form. Rather than being an optional augment to all verbs of the affected classes, augmented forms in McKelson (1974) appear to be restricted to five mono-syllabic common/proto-Australian stems (Capell 1956:90-93, Dixon 1980:403-406) which also act as auxiliaries, *ma-* 'get', *pu-* 'hit', *ka-* 'take', *yu-* 'give', *nya-* 'see'. These also occur in the shorter form. This formal distinction does not occur in the Jarlamadangah corpus, where all past-irrealis verbs of these classes are regular in taking the longer forms.

Non-negated irrealis clauses can have a range of meanings, all of which describe an event which had the unrealised potential to be otherwise. That is events which did not occur, potentially might (8.63) or should have (8.64-65) and those which did occur, but potentially might or should not have (8.68).

8.63 *pungka-ma=n* *jurr-ka-rra*
fall-PSTIRR=2SG.S down-AUX-IMP
'You might have fallen. Get down!' (G63)

8.64 *kamurra=ni* *wanti-ma* *wulyu=lku-karra* *wakaj-kuyarra*
uncertain=3PL.S be-PSTIRR good=RESTR-MAN complete-ALL

warrkam-ja, *wayitpal-kura-ja* *wayitpal-kura* *warrkam*
work(K)-LOC whitefella(E)-GEN-LOC whitefella(E)-GEN work(K)
'Perhaps they would have still been alright after that, working for the whitefella.' (Ngi13)

8.65 *yala=lku* *nga=ja=n* *yu-ngkama*
DIST=RESTR CAT=1SG.OBL=2SG.S give-PSTIRR
'You could have passed me that (flour) over there.' (HTD54alt)

The unrealised event can be either undesirable (8.63) or desirable (8.64), unintended (8.63) or intended but frustrated (8.66-67).

8.66 *wandyandana* *gadi mananadya* *nyalyuru(sic.)*
wanyja-nta=rna *karti-ma-na=na=ja* *nyalaru*
leave-PSTIRR=1SG.S hold-AUX-PST=3SG.S=1SG.OBL PROX.ERG
'I was going to leave but he held me.' (McK:129)

8.67 *ya-ntama=rna* *kaja~kajalu*
go-PSTIRR=1SG.S ahead~RDP
'I should have gone earlier.' (A31)

Past irrealis can be used to signal that something which did happen shouldn't have, in the speaker's opinion. Such examples are rare. In (8.68) the relevant clause is sandwiched between others describing events which the speaker believes should have occurred but didn't, rendering it grammatically ambiguous as 'They should have shot them' and relying on pragmatics for the correct interpretation.

8.68 *nga=ni=iny* *ma-ntama* *panara* *kujarra* *wanyju* *ngarrungu*
CAT=3PL.S=3PL.O get-PSTIRR MED two one person

ngarrungu ***nga=ni=iny*** ***wira-ma***
person **CAT=3PL.S=3PL.O** **shoot-PSTIRR**

jayil-karti *nga=ni=iny* *ka-ngkama=pa=ni=inya* *kaniny*
jail(E)-ALL CAT=3PL.S=3PL.O take-PSTIRR=ASSERT=3PL.S=3PL.O below

jurra Derby-*karti,* Derby
down placename(E)-ALL placename(E)
'They should have got those one or two men (who did it). **They shouldn't have shot them all.** They should have taken them to jail in Derby.'
(FKNgi106-8)

In a similar utterance, the same speaker uses the negative particle, but this is also ambiguous and again relies on pragmatics for the correct interpretation. By analogy with simple negatives (8.70-71), it might be interpreted as 'They didn't act badly',

8.69 *wajarri=lparra* *kapa~kapa-ntama*
NEG=ASSERT act.badly~RDP-PSTIRR
'They shouldn't have acted so badly.' (FKNonMA62)

Negated clauses with reference to the past are marked in past irrealis by most speakers, just as non-past irrealis (§8.3.8) marks negative clauses with present or future time reference. The presence of the negative particle normally focusses attention on the non-actualisation of the event rather than its potential had other circumstances prevailed. The contrasting translation of a past irrealis clause when expressed with and without the negative particle is shown in (8.71). The first clause of this example expresses counterfactuality while the second has deontic modal reading.

8.70 *yaka=rna mininy-pu-ngkama pantu-karra*
NEG=1SG.S language-AUX-PSTIRR MED-MAN
'I didn't talk about that.' (1R117)

8.71 *pantu mininy wajarri=inya pararrka-arri-ma pantu-kura-arti*
MED language NEG=3SG.OBL sorry-INCH-PSTIRR MED-GEN-PL

ngarrungarti, pararrka nga=nanya jarri-ma
person.PL sorry CAT=3SG.S>3PL.OBL INCH-PSTIRR
'His words showed no pity for those people of his. He should have felt sorry for them.' (Ngi51)

8.3.10 *-nyarrima, -narrima, ngarrima* (IPFVPSTIRR) imperfective past irrealis

Imperfective past irrealis is recorded only a few times and is formed from the imperfective suffix augmented with the past irrealis suffix, *-ma*. It has the predictable sense of a customary or ongoing activity being unrealised in the past. Imperfective past irrealis events may be habitual (8.72-73), or simply refer to unfolding events of varying durations (8.74-75). Like the punctual past irrealis, the negative particle is used optionally to stress the non-actualisation of the event (8.73) and a negative interpretation can be conveyed without it (8.72).

8.72 *purlka kuwi=rna yaji-ngarrima*
big meat=1SG.S wait-IPFVPSTIRR
I didn't wait for (for others to bring) big game. (2J117)

8.73 *wajarri=na mil-ka-ngarrima mulnyi, murta wani-nyu-karra*
NEG=3SG.S eye-AUX-IPFVPSTIRR soil nothing be-INF-MAN
'My mother couldn't see the ground, nothing.' (1P5)

8.74 *wajarri=pala murta parti-nyarrima parnany-kuyarra pantarra*
NEG=3DU.S nothing go-IPFVPSTIRR old.woman-DU MED.DU
'Those two old women were not going for nothing.' (Nya74)

8.75 *wajarri=na palamparr-pu-ngarrima*
NEG=3SG.S sunrise-AUX-IPFVPSTIRR
'Sunrise wasn't (even) happening yet.' (1J27)

8.3.11 *-nyu, -nu, -ngu* (INF) infinitive

Infinitive inflections consist of the conjugation marker (/ny/ for the Ø class) and the vowel /u/. Many researchers choose to gloss this inflection as 'nominaliser', and verbs which carry the inflection are ambiguous, displaying characteristics of both non-finite verbs and nominals. These characteristics are described by Nordlinger (2002), and will be illustrated below. I have chosen to use 'INFinitive' as the gloss, as it is a regular part of the verbal inflectional paradigm, rather than a derivational affix and the primary function of the suffix is to mark subordinate activities.

Without further inflection, it most commonly occurs in complex sentences as medial verbs in cosubordinate clause chain constructions (§13.2), or as clausal complements (§13.4.2).

8.76 *wajarri=rna liyani-ka-rrayi wani-nyu jiti-ngka*
NEG=1SG.S desire-AUX-NPIRR be-INF city(E)-LOC
'I don't like living in the city.' (A28)

8.77 *imbaly ṉana gurgayinu*
yumpaly nga=rna kurrka-yi-nu
disinclined CAT=1SG.S rise-AUX-INF
'I don't like to get up.' (McK:149)

The infinitive allows a verb to take a restricted range of nominal suffixes. The manner (8.78), purposive (8.79) and source (8.80) case-markers act as tense-relative complementisers in subordinate clauses, which function as adverbial or adnominal modifiers. These are described fully in §13.3.

8.78 *kapa-narrinya=na=la* *jinya-nu-karra*
sit-NARPST=3SG.S=3SG.OBL trim-INF-MAN
'He would sit with it carving.' (HTS18)

8.79 *kurturtu=ni=rna* *yarrka-narrinya* *nyalara-ja-pirri* *wanti-nyu-pirri*
stomach=3PL.S=RR throw-NARPST PROX-LOC-PURP be-INF-PURP
'They really wanted to stop here in this country.' (Ngi3)
(*lit*. 'They threw their emotions for staying here.')

8.80 *wiranya anga* *wirdyaba* *walu nga*
wira-nyu-angka *wirrja-pa* *warlu-ngka*
grind-INF-SRC put-AUX.IMP fire-LOC
'After grounding it put it in the fire.' (McK:155)

They can also function as clausal complements of both nominal (§12.3) and verbal (§13.4.2) predicates.

8.81 *nyumpala=npala* *nila* *jani-ma-nu-pirri* *mayi-pirri*
you.2=2DU.S clever cook-AUX-INF-PURP veg.food-PURP
'You two know how to cook bread.' (2sen151)

These non-finite clauses maintain verbal characteristics: they can select and mark non-subject arguments in the same way as finite verbs (these are optionally marked by the complementiser in agreement (8.79, 8.81)), and they can be modified adverbially. As infinitives, they cannot form a constituent with their subject (Nordlinger 2002). For example, all efforts to elicit sentences such as 'my digging found water' or 'his killing of the people was bad' were rejected and in §13.3, I show how subjects in subordinate clauses are generally omitted, or if included under certain conditions, are assigned case in the same way as a finite clause, like all subordinate arguments.

Combined with these three case-markers and certain other derivational nominal suffixes, the infinitive derives nominals from verbs (§4.2.3). These can be entities (8.82) or attributes (8.84) and can then take further inflection such as number (8.84). However, unlike most nominals, they cannot be modified and do not function as arguments.

8.82 *jani-ma-nu-pirri*
cook-AUX-INF-PURP
'thing for cooking, (*e.g.* pot, fuel)' (3Sen46)

8.83 *wandyira dyibi yuṉu-idi*
wanyjirra jipi yu-ngu-yiti
other man give-INF-CHAR
'Another man is generous.' (McK:122)
(*lit*. characterised by giving')

8.84 *ngujartu panjurn-arti nga=nya=n jurrungkul-ma-nku*
REC wood-PL CAT=1SG.O=2SG.S show-AUX-FUT

pirti-ma-nu-pirri-arti panjurn-pirri-arti
create-AUX-INF-PURP-PL wood-PURP-PL
'Remember those trees, will you show me the trees for making things?'
(HTS53)

A nominalised verb which is inflected with the manner suffix can be re-verbalised with the auxiliary *kawa* 'carry' to depict an event which occurs during another larger event (§7.2.2.2).

8.85 *kurrkayi-nu-ng-karra-ka-ngku=na*
rise-INF-EP-MAN-AUX-FUT=3SG.S
'He will get up and move on.' (HTG142)

8.4 Interrogative mood

Questions are typically formed using interrogative pronouns *nganartu/ ngantu* 'who, what' *nganijikura* 'whose', *jarni/ jarra* 'where', *jarnikarra* 'how', *nyajangu* 'how many', *nyangal* 'when' (see §5.2) or the interrogative particle *wayi* in polar questions. This sentence particle is generally the first or second element of the clause and generally hosts the BP clitics (8.86-88). A third method involves clause-final rising intonation (8.89).

Each method employs regular verb forms, and can query propositions with reference to the present, past or future, use all tense/aspect combinations of realis/declarative sentences described in earlier sections.

8.86 *wayi=n mil-ka-nya yala*
Q=2SG.S eye-AUX-PST DIST
'Did you see it there?' (93sen79)

8.87 *yu-ngku wayi(=n)=nya*
give-FUT Q(=2SG.S)=1SG.O
'Will you give me?' (HTG109alt)

8.88 *wai bani-ŋgu nyurruny milganya*
wayi pani-ngku=nyurruny mil-ka-nya
Q s/he-ERG=2PL.O eye-AUX-PST
'Did he see you?' (McK:41)

8.89 *muku=na wanti*
sick=3SG.S be.PRES
'Is he sick?' (G45)

8.5 Dubitive mood

Non-past irrealis (§8.3.8) and anticipatory constructions (§8.7) can be interpreted as expressing doubt. However, the particle *kamurra* 'uncertain' is used in sentences where the speaker is unsure of the truth of the proposition, or is speculating about possible scenarios. As with other sentence particles, it is attracted to clause initial position.

8.90 *nguju=ni-ya kuwi kanti-na, kamurra=ni-ya kanti-na,*
REC=3PL.S-EP meat hit-PST uncertain=3PL.S-EP hit-PST

wajarri=rna nila wantayi
NEG=1SG.S clever be.NPIRR
'Remember they killed the meat. Maybe they killed it. I don't know.'
(PSh55-56)

8.91 *kamurra=na wanti kuwarniya ngapa-ngka kaninyjartu*
uncertain=3SG.S be.PRES freshwater.crocodile water-LOC inside
'There might be a crocodile under the water.' (G73)

It can be used to question or to hedge a commitment for politeness' sake.

8.92 *ngantu ngapa kamurra*
what water uncertain
'What water is that? I'm not sure.' (93sen78)

8.93 *kamurra warrimpa nga=rna purta*
uncertain by&by CAT=1SG.S come.FUT
'Maybe I will come later.' (93sen44)

While the non-past irrealis inflection and especially the anticipatory clitic are often translated as expressing doubt, *kamurra* can be used with all verbal inflections and in nonverbal clauses with sentential scope. Its use in multiple clauses linked by intonation has a disjunctive interpretation (§13.1.1).

In the next example the speaker uses it to emphasise the earliness of the hour and her uncertainty that any light could yet be seen in the sky.

8.94 *yurrany~yurrany-ja-n-marta rakarra-ja kamurra kamurra kamurra*
sunrise~RDP-LOC-EP-CPR first.light-LOC uncertain uncertain uncertain

kakarra=na=la purrij karri-nyarrinya
east=3SG.S=3SG.OBL sun stand-NARPST
'(We got up) before sunrise, nearly, nearly at first light, when the sun was starting to stand in the east.' (1J58)

8.6 Negation

The unsuccessful performance of an activity can be expressed in a number of ways but two sentence particles are the predominant means of expressing negation (described in §8.6.1).

Other expressions generally indicate an attitude or intention on the part of the initiator or speaker. Expressions such as *yumpaly jarri* 'be disinclined' or *yakurr-jun* 'dislike', particles such as *jaly* 'in vain' and *titirrp* 'unsuccessful', epistemic modals like *ningarralkurtiny* 'impossible' and restrictive particles and clitics like *=lku* 'restrictive' and *murta* 'nothing, merely' express restricted or unsuccessful outcomes.

8.95 *yumpaly nga=rna jarri kurna-nu-pirri-ya*
don't.want CAT=1SG.S INCH eat-INF-PURP-EP
'I don't want to eat.' (G43)

8.96 *ṉiṉara gudin wulu na gabbarai yagurr dyunana*
ningarrakurtiny wulu=na kapa-rrayi, yakurr-ju-na=rna
impossible father=3SG.S come-NPIRR no.good-AUX-PST=1SG.S
'Impossible father likes to come, I don't like.
or 'I hope father doesn't come.' (McK:52)

8.97 *mulnyi dandyi, dyaly ṉana ladyun*
mulnyi tanyji jaly nga=rna laju-n
soil hard in.vain CAT=1SG.S dig-PRES
'The ground is hard, I can't dig.' (McK:62)

However, Mangarla has two particles whose sole function is to negate.

8.6.1 Sentence particles- *wajarri, yaka* 'NEG'

Clausal negation is typically performed by one of two particles. One, *yaka*, functions only as a clausal negator. The other, *wajarri,* is a multiply classified lexeme. In addition to functioning as a clausal negator, it is also classified as a nominal meaning 'nothing' or 'nobody'. It can take a range of nominal suffixes, including the comitative when it functions as the privative *wajarrartu* [NEG.COM]. Both inflected and uninflected forms can function as a nominal qualifier (§9.3.2, §9.4.2) and the uninflected form can act as an interjection, 'No!', 'Nothing!'

These have scope only over the clause in which they occur, (which can be a main, as shown here, or subordinate (§13.3) clause) and both prefer initial position (8.98-99), unless another element is in focus (8.100, 8.102). Commonly, the word that follows is the predicate.

8.98 *yaka=rna kurna-ntama*
NEG=1SG.S ingest-PSTIRR
'I didn't eat.' (2sen10)

8.99 *wajarri=na paja-ntama kuwi*
NEG=3SG.S bite-PSTIRR meat
'He didn't catch the prey.' (PSan38)

8.100 *yala=rna yaka mil-kayi*
DIST=1SG.S NEG eye-AUX.NPIRR
'I can't see right over there.' (2sen198)

McKelson (1974:35) notes that the two particles may be used together, but it is possible that in his examples *wajarri* acts as an interjection, 'No' and *yaka* negates the verb. However, transcriptions lack punctuation marks and translations do not support this. The two do not occur together in the Jarlmadangah corpus.

8.101 *wadyari yaga na maranda*
wajarri yaka=rna marra-nta
NEG NEG=1SG.S say-PSTIRR
'I did not tell him.' (McK:35)

Finite verbs in negative propositions are generally marked by irrealis inflections, as in neighbouring Nyangumarta (Sharp 2004:368), Walmajarri (Hudson 1978:81), and Nyulnyulan languages (McGregor and Wagner 2006). In (8.98-99, 8.101) the past irrealis is shown and in (8.100) the non-past irrealis is used. The anticipatory construction is also commonly used in negated clauses of all types and is obligatory with negative imperatives. All uses of the anticipatory construction are examined in §8.7.

Some speakers also allow the negation of tensed clauses in realis mood. In Nyangumarta, Sharp (2004:371) reports that this only occurs with future tense clauses, but it is the norm in negative clauses in Wangkajunga (Jones 2011:313), which may influence some Mangarla speakers.

8.102 *ngayu wajarri=rna partu*
I NEG=1SG.S go.FUT
'I won't go.' (FKsen49)

8.103 *yaka=ni wanti*
NEG=3PL.S be.FUT
'They can't stay.' (H25)

8.104 *wajarri=rna parrpaly-pinya kuwi*
NEG=1SG.S gut-AUX.PST meat
'I did not gut the fish.' (2sen154)

8.105 *wajarri=rna=ngka minji marra-narri*
NEG=1SG.S=2SG.OBL deceit say-IPFV
'I'm not telling you lies.' (FK37alt)

Semantic contrasts in the subject's motive for not performing an activity are not formally differentiated. Pragmatics and verb semantics play a role in interpretation, particularly with non-past inflections which are at times translated as ability (particularly with verbs expressing perceptual abilities or bodily functions - 8.100), and occasionally will or desire (8.102, 8.106). Two speakers translate (8.107) differently.

8.106 *wadyari na gabbarayi*
wajarri=na kapa-rrayi
NEG=3SG.S come-NPIRR
'He did (*sic.*) not like to come.' (McK:38)
(*lit*. 'He isn't coming.')

8.107 *yaka=na ka-wayi*
NEG=3SG.S take-NPIRR
'He doesn't take him.' / (H22)
'He can't take him.' (2sen90)

Speakers can add the epistemic *=lpa(rra/i)* 'assertion' to *wajarri*, to impart a sense that the counterfactual proposition is somehow contrary to the way the speaker feels things might or should be. In Mangarla's southern neighbour Warnman, *yakalpa* 'in vain' (Burgman 2010:92), may be related.

8.108 *wadyari yaga na maranda, marandana wadyarilbara,*
wajarri yaka=rna marra-nta ***marra-nta=rna*** ***wajarri=lparra***
NEG NEG=1SG.S say-PSTIRR **say-PSTIRR=1SG.S** **NEG=ASSERT**

gawid ṉana waninya
kawit nga=rna wani-nya
quiet(E) CAT=1SG.S be-PST
'I did not tell him. **I was going to tell him but I didn't**, I stopped quiet.'
(McK:137)

8.109 *wajarri=lparri=na wantayi janyja*
NEG=ASSERT=3SG.S be.NPIRR today
'Nobody is there today.' (1D51)
(*lit.* None can stay today [contrary to tradition].)

8.7 =*kulu* (ANTIC) anticipatory mood

The anticipatory clitic *=kulu*, is one of only two clitics which attaches after BPs (the other is the emphatic *=(a)wu*). It is particularly associated with the imperative inflection but occasionally attaches to other TAM markers or nominal predicates.

It has a range of interpretations, but is predominantly used to indicate that the speaker views the proposition with anticipation; its fulfilment is possible and generally to be avoided, although it occasionally indicates a neutral or even desirable outcome, as shown below.

With the negative particle (§8.6.1), and a second person subject, the anticipatory clitic marks **negative imperative** (**admonitive**) constructions which often convey a strong sense of warning or foreboding implying danger from an external source. Admonitives employ regular BP clitics, unlike non-negated imperatives which generally omit the subject clitic and mark only number (§6.1.1.1, §8.3.7).

8.110 *wajarri ya-rra=nyurra=kulu*
NEG go-IMP=2PL.S=ANTIC
'Don't you lot go!' (A56)

8.111 *wajarri mil-ka=n=kulu, wajarri karti-ma-rra=n=kulu*
NEG eye-AUX.IMP=2SG.S=ANTIC NEG hold-AUX-IMP=2SG.S=ANTIC
'Don't you look at it or touch it.' (2sen51)

Negated anticipatory clauses with first and third person subjects express **deontic necessity** (8.112-113), **inability** (8.114), or **refusal** (8.115). Example (8.115) shows both negated and non-negated clauses. Most examples from McKelson (1974) have first person subjects and are translated as 'can't' or 'don't like to'.

8.112 *gui ñana wiru gudyji, wadyari gundilagulu*
kuwi nga=na wiru-kurrji, wajarri kurnta=la=kulu
meat CAT=3SG.S maggot-BEL NEG ingest.IMP=1PL.IN.S=ANTIC
'This meat has maggots; we can't eat it.' (McK:78)

8.113 *wajarri yina-rra=rna=kulu nyuntu-ngku=n-nga yina-nku*
NEG name-IMP=1SG.S=ANTIC you.SG-ERG=2SG.S-EP name-FUT
'I can't say the name but you can say it.' (2sen52)

8.114 *wulu ñana buramaru, yaga binamaragulu*
wulu nga=na pura-marru, yaka pina-ma-rra=kulu
father CAT=3SG.S obscure-head NEG hear-AUX-IMP=ANTIC
'Father is deaf, he can't hear.' (McK:112)

8.115 *wajarri parti=ngarni=kulu nyurrartu,*
NEG go.IMP=1PL.EX.S=ANTIC you.all.COM

kanti-rra=nyurra=ngarniny-ya=kulu yala-ngka, ngarni marra-ninya
hit-IMP=2PL.S=1PL.EX.O-EP=ANTIC DIST-LOC 1PL.EX.S say-NARPST
'"We won't go with you lot. You might beat us over there," we said.'
(1M68-69)

Without the negative particle, anticipatory constructions often describe a potentially **adverse event** and act as warnings.

8.116 *pantu warlu parra~parra kampa=nyjurruny=kulu*
MED fire heat~RDP burn.IMP=1PL.IN.O=ANTIC
'That fire is hot and it might burn us.' (G131)

8.117 *kuwarniya=pa wanti=kulu*
freshwater.crocodile=ASSERT be.IMP=ANTIC
'There might be a crocodile there.' (A53)

Aversives and admonitives are the most common anticipatory clause types in the Jarlmadangah corpus. They are frequently uttered together (§13.1.1).

8.118 *wadyari manba badingulu*
wajarri marnpa parti=n=kulu,
NEG close go.IMP=2SG.S=ANTIC

bidi nga gagu nga bungingulu
pirti-ngka kaku-ngka pungka=n=kulu
hole-LOC deep-LOC fall.IMP=2SG.S=ANTIC
'Don't come close! You might fall into the deep hole!' (McK:119)

However, many examples of *=kulu* have first or third person subjects and, un-negated, they express a speaker's speculation about a likely event, often without an adverse outcome. For this reason, McKelson (1974:36) analyses the construction as 'the optional or potential'.

8.119 *ya-rra=rna=kulu*
go-IMP=1SG.S=ANTIC
'I might go.' (A54)

8.120 *gundumaru warira dyina na wandi gunminda wandigulu*
kurntumarru warri-rra, jina=na wanti, kunmin-ta wanti=kulu
lizard.sp seek-IMP foot=3SG.S be.PRES hollow.log-LOC be.IMP=ANTIC
'Look for the lizard. There is its track. It might be in the hollow!' (McK:85)

With this sense, *=kulu* constructions are used interchangeably with the non-past irrealis (§8.3.9), which McKelson (1974) labels 'desiderative'. In both constructions, the proposition remains unrealised or unverified; both types employ the imperative verb stem, and these semantic and syntactic similarities result in their use as interchangeable. Compare the pairs below, where the a) sentences contain the anticipatory clitic and the b) sentences are in non-past irrealis.

8.121 *a) Ñayu ngu wadyimarai wangu,* moter car *maranagulu*
ngayu-ngku waji-ma-rrayi warnku, murtika=rna ma-rra=rna=kulu
I-ERG keep-NPIRR stone car(K)=1SG.S get-IMP=1SG.S=ANTIC
'I like to get money, I **can get** a moter (*sic.)* car.'
or 'If I get the money, I will get a moter car.' (McK:52)

b) Ñayu ngu wadyimarai wangu, moter car *na marai*
ngayu=ngku waji-ma-rrayi warnku, murtika=rna ma-rrayi
I-ERG keep-NPIRR stone car(K)=1SG.S get-NPIRR
'I like to get money, I **like to** get a moter (*sic.)* car.'
or 'If I get the money, I will get a moter car.' (McK:52)

8.122 *a) kapa-rra=nganyjurrungka=kulu ngapa*
sit-IMP=1PL.IN.OBL=ANTIC water
'We might get wet.' (*lit.* 'Rain might come upon us.') (HTD93)

b) kaniny-jangka ma-rrayi ngapa, wanayiti
below-SRC get-NPIRR water storm
'(We) might get a storm from down there.' (3Sen43)

8.123 *a) wadyari bina marañananagulu*
wajarri pina-ma-rra nga=rna=na=kulu
NEG hear-AUX-IMP CAT=1SG.S=2SG.O=ANTIC
'I don't want to listen to you.'[28] (McK:143)

b) yagan ña bina marai
yaka=n-nga pina-ma-rrayi
NEG=2SG.S-EP hear-AUX-NPIRR
'You don't want to listen.' (McK:76)

Even though both constructions are often given the same translation, *=kulu* tends to mark a stronger expectation by the speaker of the proposition being realised, rather like the English adverbs 'likely' as opposed to 'possibly' for non-past irrealis. It generally reflects

[28] Compare this also to (8.114) where the same construction indicates a lack of ability rather than willful refusal.

the speaker's anticipation about a stronger likelihood of the event being realised, particularly if this may have adverse consequences.

The clitic's fixed position and its semantic unrelatedness to the imperative inflection when not negated have led Sharp (2004:165) to analyse a similar construction in Nyangumarta as a discontinuous verbal inflection.

However, the clitic's (albeit rare) attachment in Mangarla to nominal predicates (8.124-125), and also to finite verbs with inflections other than the imperative (8.126-127), indicate its status as a clitic in Mangarla rather than a discontinuous verbal inflection. Sentence (8.127), which is in future tense rather than the usual imperative, is only acceptable to some speakers (this may result from the fact that the imperative and future inflections of Ø class verbs are phonologically null), while (8.126) shows the anticipatory clitic after a past tense verb, and it has also been found following the imperfective, and past irrealis inflections.

8.124 *rirra-ngka-ka-rra nga=rnangka=kulu wajarri mil-ta=kulu*
mouth-LOC-AUX-IMP CAT=RROBL=ANTIC NEG eye-LOC=ANTIC
'Don't put it in your eyes or in your mouth.' (2sen50)

8.125 *ningarra=lku=rtiny nganga=na=kulu ngijakura-angka mininy*
true=RESTR=EXPECT lost=3SG.S=ANTIC I.GEN-SRC-LOC language
'Someone might say that my word is not right, but it is.' (2D49)
[My words shouldn't get lost (in translation).]

8.126 *yinpinya=na=kulu ngulu~ngulu-ju*
spear.PST=3SG.S=ANTIC sun~RDP-ERG
'The sun might have hit it (causing it to melt).' (2sen21)

8.127 *pu-ngku=rna=kulu*
hit-FUT=1SG.S=ANTIC
'I might hit him.' (A43)

Further research into this clitic and its semantics is highly recommended.

9 The noun phrase

9.1 Introduction

The extensive use of bound pronouns and zero anaphora means that nominal expressions are optional. Of over 3000 clauses which comprise the Jarlmadangah corpus, the majority contain a single or no nominal word. Fewer than 25% (as low as 15% in particular text types) contain two or more coreferent nominals (under 750 tokens).

Coreferent nominals may be expressed discontinuously, distributed throughout the clause and separated by other elements (9.1), or contiguously (9.2-3). The former comprise around 10% of coreferent multi-element expressions and, as the topic of §9.5, are excluded from the discussion to that point.

9.1 ***kuwi***=*na* *kanti-na=lku* ***panartu***
meat=3SG.S hit-PST=RESTR **MED**
'He just killed that prey.' (PSh15)

9.2 *ma-nku=rtiny* *nga=na* ***panartu*** ***kuwi***
get-FUT=EXPECT CAT=3SG.S **MED** **meat**
'He is about to get that prey.' (PSan88)

9.3 *mili~mili-ja=n* *wirrja-nku* ***mininy*** ***panartu***
paper~RDP-LOC=2SG.S put-FUT **language** **MED**
'You will put that story on paper.' (1D83)

Evidence that most contiguous nominal expressions form phrasal constituents is given in §9.2 and at the simplest level, a noun phrase (NP) consists of one or more nominal: an obligatory head (underlined in examples above) and an undefined number of optional (indicated by brackets in (9.4)) modifiers which can occur before (9.2) or after (9.3) the head.[29] Modifier functions are described in §9.3.

[29] Non-possessive personal pronouns are the exception. These always occur in initial position and when used adnominally, precede other nominals with the same reference. They mostly function as the head of the phrase although may be considered determiners in some instances (Louagie and Verstraete 2015). They are discussed in §9.3.4.2 and general discussion up to that point will exclude them.

9.4 *(MODIFIER)* HEAD (MODIFIER)**

Around 84% of the 750 odd multi-element NPs under discussion contain only two words, leaving about 16% (120 tokens) with three or more contiguous elements. Observationally, McKelson's (1974) materials show similar patterns.

While (9.4) permits an unlimited number of modifiers both before and after the head, no more than four elements are ever attested: never more than three modifiers in pre-head position (9.5) or more than two post-head (9.6). When distributed around the head, speakers rarely place more than one modifier on both sides (see §9.2.4), with the majority having one on each side (9.7).

9.5 *kaniny-parrakurna nyaltu-karti Nyikina-karti ngarrungu-karti*
below-wards PROX-ALL Nyikina-ALL person-ALL
'down here to these Nyikina people' (1D37)

9.6 *pirra panartu paniyarti-kura*
bush MED they-GEN
'that bush of theirs' (1D25)

9.7 *nganarni-kura-angka mulnyi kaniny-jangka*
we.all.EX-GEN-SRC soil below-SRC
'from our lands down below' (Nya83)

NP-internal word order is complex, and the basic structural template in (9.4) is divided into a number of functional slots in §9.2.4 (*cf.* McGregor 1990:253-256, Dench 1995:189, Evans 1995:235-238). Each function and the nominal subtypes which perform them are described in §9.3. All slots in (9.4) may be filled with simple or complex elements, including conjoined or embedded NPs (§9.4).

Over the years, alternative views have been proposed concerning the nature of nominal expressions in languages, like Mangarla, which have a high degree of word order flexibility. These have been closely bound to the discussion of non-configurational syntax more broadly (see Austin 2001, Nordlinger 2014 for good overviews). Some have argued that all coreferent nominals occur in apposition, linked by means of case concord or copying (*e.g.* Blake 1983, Heath 1984, Jelinek 1984), while others have used, as I do, a

range of features as evidence for the existence of an NP constituent in many Australian languages (*e.g.* McGregor 1990, Simpson 1991, Dench 1995, Evans 1995, Bittner and Hale 1995, Austin and Bresnan 1996, Nordlinger 1998, Blake 2001, Gaby 2006, Meakins and Nordlinger 2014). These features include prosody (§9.2.1), clausal position (§9.2.2), scope of inflectional markers (§9.2.3), and word order preferences and restrictions (§9.2.4). Further evidence comes from clitic agreement of conjoined NPs (§9.4).

While exceptions to the characteristics described below occur, they generally relate to pragmatics or a particular type of nominal element. Prosody and pragmatics have a strong impact on NP structures (*e.g.* Nordlinger 2014:237-241, Schultze-Berndt and Simard 2012) and detailed research into these interactions is highly recommended.

9.2 Evidence for the existence of the NP

9.2.1 Prosody

An NP constituent can be supported on phonological grounds. As Gaby (2006:278) puts it when discussing NPs in Kuuk Thaayorre: 'Prosodically, the noun phrase is characterised by: (a) a lack of planned pauses; (b) a single intonation contour; (c) a single primary stress peak.' Most NPs in Mangarla conform to these criteria (9.2-7), including those which are clause-external, such as hanging topics or afterthoughts. These occur in separate intonation units offset from the clause and often provide good prosodic evidence of constituency (§9.6).

However, other nominal strings, such as verbless sentences which consist of two NPs, a predicate and its subject, also conform to this criteria and, in running discourse, utterances made after a pause and in a separate prosodic unit, such as that in (9.8), are ambiguous as adjoined NPs (§9.6) or verbless clauses, particularly when they conform to the word order restrictions of the NP (§9.2.4).

9.8	*wanyjirra*	*kuwi*	*nguju*	*nganiji,*	*nganiji*	*kuwi,*
	other	meat	REC	whatsaname,	whatsaname	meat,

yura-karraji, wipirti-marta, ***makarra lurntu nyaltu***
swale-PERT small-CPR **tail fat PROX**
'Another animal, you know it, what's its name, a whatsaname meat, lives in flat ground between sandhills, a little one, this fat tailed one.' (1J133)
(or 'This one has a fat tail.')

Occasionally, a pause will intervene between elements of an NP, particularly those which contain complex elements such as the quantifier in (9.9). These pauses are naturally occurring breaks between the elements in a complex expression. In such cases, the determining prosodic feature is the intonation unit.

9.9 *panara kujarra, wanyju ngarrungu*
MED [two one] person
'that couple of people' (FKNgi106)
(*lit.* 'that two or one person')

In the absence of a detailed prosodic analysis, phonological criteria often need to be considered in conjunction with other criteria to establish the constituency.

9.2.2 Placement of bound pronoun complex

The placement of the BP complex has been used as evidence of the NP in Ngumpin-Yapa languages (amongst others) including Warlpiri (Hale 1973, Nash 1986, Simpson 1991, Austin and Bresnan 1996), Jaru (Tsunoda 1981), and Walmajarri (Hudson 1978). With the unmarked (over 80%) placement of the BP complex being second position within the Mangarla clause (§6.4), coreferent nominals preceding the BP complex, which can potentially carry the same inflectional marking, and which meet the phonological criteria set out in §9.2.1, are deemed to form a single constituent, as in these related languages. In the next example, this concerns two coreferent nominals which share the ergative case.

9.10 *panaru-ju ngarrungu-ju=**na** juju yinpa-narri karli-yartu-ju*
MED-ERG person-ERG=**3SG.S** song sing-IPFV boomerang-COM-ERG
'That man is singing a song using boomerangs to tap.' (3Sen6)

9.2.3 Case and number marking

Case and number agreement between nominal expressions provides further evidence of the NP constituent. While case-concord on strings of nominals is a necessary feature of appositional elements with no hierarchical structure (Hale 1983, Blake 1983), it does not rule out the possibility that such strings form a constituent (and has been used as evidence for NP constituents *e.g.* Dench 1995:189). However, a single case marker within a string of coreferent nominals poses a problem for the appositional analysis, in which case-marking has only lexical scope. In languages like Warlpiri, where speakers have the option of marking only the final element (Nash 1986, Simpson 1991), the phrasal scope of a case-marker is used as a test of NP constituency.

Evidence from McKelson's earlier data and from some speakers in this study suggests that historically Mangarla marked all elements of an NP in complete concord. This remains a preference for most speakers (9.11). However, language shift, perhaps under influence from Nyikina, has led many to use a free marking strategy where at least one member of the NP is marked (Stokes 1982:59-60, Dench and Evans 1988:5). 'Popular locations of the noun phrase suffix are (1) the initial item (2) the most significant item' (Stokes 1982:59). In Mangarla NPs which lack complete concord, phrase-initial marking is common (compare (9.12) with (9.13)).

9.11 *Marntarninyan-ta nga=ni=ngarniny ma-na nyalara-ja*
placename(E)-LOC CAT=3PL.S=1PL.EX.O get-PST PROX-LOC

*yakurr-partu~yakurr-**ju** wanyjirra-**aru,** wulu-**ngku** ngunyarri-**ju***
no.good-TYPE~RDP-**ERG** other-**PL.ERG** father-**ERG** aunty-**ERG**
'My other father and aunty and other old people picked us up here at Mt. Anderson.' (1M85)

9.12 *ngayi, nyalartu jani-ma-n ngurra-ngka [marnin-**tu** wanyju].*
yes PROX cook-AUX-PRES camp-LOC [woman-**ERG** one]
'Yes, here, one woman is cooking in the camp.' (PSh148)

Several features impact on the analysis of case and number agreement in the NP. Firstly, as noted at the start of §4.3, not all NPs are marked for case as might be expected. Secondly, as mentioned above, a relatively low number of nominal expressions contain multiple

members, and a disproportionate number of these are unspecified for number and/or unmarked for case. This is due to the fact that, nominal expressions being optional, they are more likely to be used for new participants rather than those already known to the hearer. The first mention of participants is often when they are affected, (*i.e.* patients rather than agents) or in identificational clauses which commonly have nominal predicates or intransitive verbs. Hence 77% of the multi-lexeme NPs examined occur in the unmarked absolutive (9.2-3, 9.8). On the other hand, the subjects of transitive verbs are frequently topical (old) information, and less likely to have overt expression as an NP. Only 156 (22%) of the NPs under discussion are expected to have overt case-marking (8% with ergative marking and 14% with a local case). In 98 (around 63%) of these, case is marked on all elements (9.10-11).

Of the remaining 58 NPs, case is marked on at least one element (9.12-14). The omission of case marking is more likely to involve the ergative, than non-core cases. This is also a trend in Walmajarri where "in fast or conversational speech one sometimes hears only one occurrence of the case-marking suffix in a noun phrase; but if the speaker is questioned about it he will mark the whole phrase" (Hudson 1978:17). In Mangarla, too, speakers will often revise utterances, particularly in glossing sessions, by adding case-markers to elements of an NP where it may originally have been omitted.

About 26% (15) of these 58 NPs in Mangarla mark only the final element while over 65% (38) mark the first element alone. The final element is the preferred target in spatial NPs (9.17) and complex NPs (§9.4). However, ergative marking is most commonly (though not exclusively) marked on the first element. Sentences (9.12-13) are uttered in quick succession by the same speaker describing a picture. While the word order changes, so too does the placement of the ergative suffix. In both instances the first element is marked and the final one is not. Note too, that in the final NP of (9.13), the demonstrative does not agree in number with the head (discussed below).

9.13 *[wanyju-**ngku** marnin], jani-ma-narri=yinyala, nyalartu kuwi-yarti*
[one-**ERG** woman] cook-AUX-IPFV=3PL.OBL2 PROX meat-PL
'One woman, she is cooking these fish for them.' (PSh149)

In about 8% (5) of the 58 NPs under discussion, case is marked on the first and the last element, while those in between, often in ENTITY function (§9.3.1), remain unmarked.

9.14 *[yala-**ngka** ngapa wanyjirra-**ja**] nga=ngarni kapa-narrinya*
[DIST-**LOC** water other-**LOC**] CAT=1PL.EX.S sit-NARPST
'We would stay at the next water way out there.' (1J61)

Some examples which lack full concord contain complex elements with final-marking (*e.g. [jaku wajarrartu]-ju* [[shovel NEG-COM]-ERG] '(we did it) without shovels/shovel-less'). Marking variation involving the allative suffix can be seen in (9.16-18), in (9.16) both elements are marked, while only the second element of each of two apposed NPs is in (9.17). In the conjoined NPs in (9.18), the first element of one is marked while only the last of the second is marked.

9.15 *ngapa-**ngka** wanyjirra-**ja**=ngarni kapa-narrinya*
water-**LOC** other-**LOC**=1PL.EX.S sit-NARPST
'We would stay at the next water.' (1J119)

9.16 *nguwi-nu-karra-ka-nya yalparra mayaru-**karti** pantu-**karti***
return-INF-MAN-AUX-PST again building-**ALL** MED-**ALL**
'Later (we) came back to that house.' (2J109)

9.17 *nguwi-narri=ni [nyaltu ngurra-**karti**], [paniyarti-kura mayaru-**karti**]*
return-IPFV=3PL.S [PROX camp-**ALL**] [they-GEN building-**ALL**]
'They are returning to this camp, to their home.' (PSh186)

9.18 *pantangkaju kurrka-yi-nu-ng-karra-ka-ngarru=na [wanyjirra-**karti***
after.that rise-AUX-INF-EP-MAN-AUX-IPFVFUT=3SG.S [other-**ALL**

*ngapa] [ngurra wanyjirra-**karti**]-pa*
water] [camp other-**ALL**]-and
'After that he will get up and go to another waterhole and another camp.'
(HTG186)

As with case, number marking can also be omitted as unnecessary if indicated by some other element in the clause, such as reduplication, a quantifier or pronominal clitics or collective nouns (*e.g.* the collective quantifier *wulala* in (9.19)). While most speakers tend to mark number on all elements where appropriate, one instance can also be understood to have scope over unmarked elements of the NP which might otherwise be marked.

In (9.13) the singular demonstrative *nyalartu* lacks agreement with the plural head noun *kuwiyarti*, and in the second coordinand of (9.19), the head noun *kularrapulu* lacks dual agreement with the quantifier *kujarra* 'two' and the modifier *purlkarra*. In such contexts, it seems unnecessary, and phonologically complicated, to mark all elements which clearly meet other NP constituency tests. As with examples that lack case-marking, words unmarked for number frequently function as entities, are not necessarily singular, but simply unspecified for number and may have a collective or generic interpretation.

9.19 *ngalyarra-ju nga=yarra=napalany ma-na*
s/he&I-ERG CAT=1DU.EX.S=3DU.O get-PST

*[wulala wupa-karra kuwi] [kujarra kularrapulu purlka-**rra**]*
[a.lot small-MAN meat] [two turtle big-**DU**]
'We two caught two lots: a lot of small fish and two big turtles.' (G128)

In Martuthunira, where complete case-concord defines the NP, 'it is not uncommon for number marking to appear on some part of an apparent noun phrase rather than on all words in the noun phrase', Dench (1995:203) argues that the 'simple solution' is to 'treat the apparent noun phrases ... as adjoined structures'. The uninflected entities and qualities 'are construed at some higher level of semantic interpretation' (p. 201) but are syntactically separate additions.

In such an analysis, the lack of number agreement between the demonstrative and plural noun, *nyalartu kuwiyarti* in (9.13) would make them two separate NPs, 'this one, some animals' and (9.19) would then be paraphrased as, 'We caught two types: (one of) many small fish, (and one of) two, which were turtle, two big ones.' Cases of clear adjunction do often lack both number and case marking (§9.6). However, in these examples, there is no indication of adjunction, not in prosodic structure, word order (§9.2.4) nor translation.

The analysis promoted here is that number, like case, can have phrasal scope, and while inflectional marking of all members of an NP in Mangarla is preferred, it is not obligatory. Case and number marking of at least one element in a string of coreferent nominals is indicative of constituency when considered together with prosody, word order and the placement of the BP complex.

9.2.4 Word order

Word order in Mangarla is flexible and influenced by pragmatic concerns at both clausal and phrasal levels. However, strong word order tendencies are a third indication of the existence of an NP constituent in Mangarla. As shown in (9.4), basic NP structure consists of an obligatory head and optional modifiers and as demonstrated in §9.1, modifiers can occur either before or after the head. Any one nominal subcategory is between 60-80% more likely to occur before the head than after it. Speakers show a marked preference for placing demonstratives and numbers before the head, while common nominal attributes and genitive expressions are equally likely to occur before or after the head.

Of NPs containing only one modifier, 70% express the modifier pre-head and only about 30% place it post-head. However, when multiple modifiers are present, they are more likely to be distributed around the head (about 49%), with only about 27% having all modifiers before the head and approximately 24% with only post-head modifiers. Whichever strategy is selected, clear word order patterns, based largely on function, can be identified. Describing the order of NP elements in terms of function was first explored by McGregor (1990), Dench (1995), and Evans (1995), whose works heavily influence this and following sections.

Modifiers in Mangarla perform four typical functions. These functions are: ADVERBIAL, DETERMINER, QUANTIFIER and QUALIFIER. Each of these is examined in detail in (§9.3) but a brief overview is provided here to inform the immediate discussion.

Nominals in ADVerbial function (§9.3.5) locate the referent in space or time (STLs). DETerminers (§9.3.4) specify or narrow the reference of the NP in the linguistic or extra-linguistic context. They are the most common type of modifier and include demonstratives, indefinite/interrogative pronouns and nominals in genitive case. QUALifiers (§9.3.2) restrict the range of possible referents by attributing a characteristic or quality to the referent. These are most commonly attributive nominals which function as adjectives in other languages. ADVerbial, DETerminer and QUALifier slots are recursive *i.e.* more than one expression can occur in the same relative position(s). QUANTifiers (§9.3.3) enumerate or indicate the quantity of a referent. The semantic head and only obligatory element of the phrase is the word in ENTITY function (§9.3.1), typically a substantive noun. However, nominals with other prototypical functions can also function referentially in this slot and it

can contain more than one element each with the same reference. These superordinate constructions are described in §10 and include generic-specific, inclusory and part-whole constructions. Thus, this analysis does not include a separate 'classifier' function found in other descriptions (*e.g.* McGregor 1990, Evans 1995, Dench 1995).

Within the NP, each function has a fixed position in relation to the head. However, this varies according to whether a modifier is placed before the head/ENTITY or after. Each of these scenarios will be examined separately, before discussing their interaction when modifiers are distributed on both sides of the head. Template (9.20) shows the order of pre-head modifier functions. Optional elements are again shown in brackets and the symbol ^ indicates strict linear ordering. Table 9.1 exemplifies the order with actual NPs.

9.20 *(MODIFIER)** *HEAD*
(ADV)*^(DET)*^(QUANT)^(QUAL) ^ ENTITY

Table 9.1 Examples of NPs showing the function of pre-head modifiers

ADVERBIAL	DETERMINER	QUANTIFIER	QUALIFIER	ENTITY
kaniny~kaniny	*nyalaraja*			*Martuwarraja*
below~RDP	PROX.LOC			Fitzroy.River.LOC
'down here on the river'				
	ngijakura			*yarlpurru*
	I.GEN			lawmate
'my contemporary'				
	panaruju		*purlkangku*	*maajangku*
	MED.ERG		big.ERG	boss.ERG
'that big boss'				
	pantarraju	*kujarraju*		*kakarraju*
	MED.DU.ERG	two.ERG		uncle.DU.ERG
'those two uncles'				
		wulala	*wupakarra*	*kuwi*
		a.lot	small.MAN	meat
'many small fish'				
yalparrawun			*wanyjirra*	*mininy*
again.WELL			other	language
'a different story again'				

No example contains all four modifier functions shown in (9.20) and in (9.21) below. As stated in §9.1, only a small number of NPs (120) contain more than one modifier (although complex elements may fill a single modifier slot - §9.4.2) and the most attested is three. However, the range of modifier permutations and combinations endorses the generalisations made in (9.20) and (9.21), which shows the ordering tendencies for post-head modifiers. Note that this is the mirror image of the pre-head ordering. Some combinations of post-head modifiers are shown in Table 9.2.

9.21 *HEAD (MODIFIER)**
ENTITY ^ (QUAL)* ^ (QUANT) ^ (DET)* ^ (ADV)*

Table 9.2 Examples of NPs showing the function of post-head modifiers

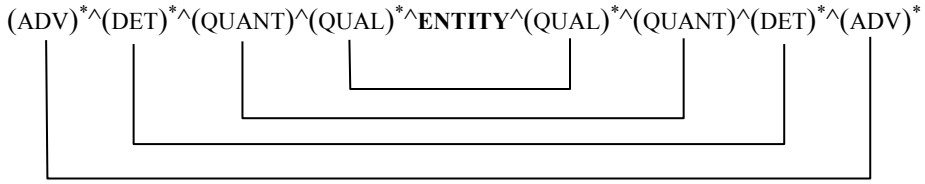
ENTITY	QUALIFIER	QUANTIFIER	DETERMINER	ADVERBIAL
papalarra		*kujarra*		*kaniny*
brother.DU		two		below
'two brothers down below'				
wurna	*kuwikarti*			*nyarrakurna*
move.off	meat.ALL			away.wards
'a hunting trip in that direction'				
karnajinangany	*pirramartaji*		*nganarnikura*	
echidna	bush.ASS		we.all.EX.GEN	
'our echidna bushmeat'				
kuli	*purlka*		*panarta*	
anger	big		MED	
'that big trouble'				
ngurra			*paniyartikura*	*yulpurrukarra*
camp			they.GEN	early.days.MAN
'their traditional home'				

The pre-head ordering restrictions of (9.20) and the post-head order of (9.21) are combined in Figure 9.1 which sets out the ordering principles for any potential NP. Again, this is a maximal projection and not all combinations permitted by it are attested, and some occur rarely. Functions can broadly be characterised as a series of layers distributed around the

ENTITY, as described by Rijkhoff (2002). In Mangarla, it can be observed that each layer is positioned in a mirror image to that on the other side.

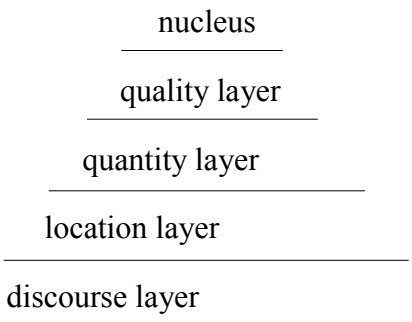
Like the concentric scoping principle of case-marking (§4.1), the distance of each functional layer from the NP head indicates its relationship to other elements. The layers closer to the head contain terms which modify the referent and are semantically more closely associated with it. The outer layers are filled with more semantically independent terms like adverbials and determiners which serve to locate the referent. The elements furthest away from the entity are only marginal nominals functioning as adverbials. The tendency of more general, inclusive words, such as determiners to occur at the peripheries of the NP has been noted by many researchers (Dixon 1977, Blake 2001, Rijkhoff 2002, Louagie and Verstraete 2015, Louagie 2017).

Figure 9.1 Order of functional slots in the NP



These features are captured by the principles proposed by Rijkhoff (2002) who describes the morpho-syntactic manifestations of the Aristotelian notions, quality, quantity and location, as occurring in a hierarchical structure around the NP head. These are nested layers subject to a scoping principle which places elements successively around others over which they have scope (Rijkhoff 2002:218-223, 313*ff*). Hence 'location' which occurs further away from the head has scope over the other three elements; 'quantity' encompasses the referent and its qualities with scope over both, while 'quality' applies only to the referent and must occur within the other layers. An additional layer which encompasses all others is filled by discourse modifiers, which provide the hearer with information about the referent as an entity within the discourse context. While the proximity of the layers to the nucleus is constant, their realisation in the NP varies according to the syntactic organisation of a particular language and its 'placement rules'. Rijkhoff's hierarchical concept of the NP is shown in Figure 9.2.

Figure 9.2 Hierarchical structure of the NP (after Rijkhoff 2002:343)



Rijkhoff's 'location' layer corresponds to the adverbial and determiner slots in the Mangarla NP, and the inner slots of quantifier and qualifier follow the same sequence identified by Rijkhoff (2002:218*ff*). Mangarla lacks a distinct discourse layer since, as for many Australian languages, demonstratives perform both 'discourse' and 'location' functions and it is often difficult to assign one function to them over another (§5.3.6). Demonstratives generally occur in the outermost layer, unless an STL is present, and these outer layers have capacities not available to other modifiers, such as the ability to distribute multiple elements around the head, while maintaining the ordering principles.

Identifying functional layers in the Mangarla NP accounts for:

i. the ability of multiple modifiers to occur after the head[30] -*e.g.* Table 9.2, (9.28);
ii. the ability of post-head modifiers to perform different functions -*e.g.* Table 9.2;
iii. the 'doubling' of modifiers (Hawkins 1983:213) allowing all functions to occur on either side of the head -*e.g.* Tables 9.1 and 9.2, (9.22), (9.27-28);
iv. the ability of multiple lexemes in the same function to be split and placed on both sides of the head (9.23-25), subject to restrictions outlined below;
v. the mirror-image order displayed by post-head modifier functions relative to their pre-head positions as shown in Figure 9.1;
vi. the fixed positions of multiple elements within a modifier slot such as DETERMINER.

[30] While this is common in Mangarla, other Australian languages described using a functional analysis only seem to allow one modifier in post-head position, often a qualifier. Louagie (2017:191) describes four types of NP structures, only one of which allows modifiers on either/both sides of the head. Mangarla appears to be a special instance of her type 4, allowing both possible incarnations to occur and allowing all elements to be distributed around the head.

Examples in Tables 9.1 and 9.2 illustrate the capacity of all modifier functions to occur before or after the entity. Qualifier 'doubling', where a qualifier (bolded below) may be positioned either before or after the head, is demonstrated in (9.19) repeated as (9.22). The pre-head order *QUANTIFIER>QUALIFIER>ENTITY* occurs in the first coordinand and the distributed order *QUANTIFIER>ENTITY>QUALIFIER* occurs in the second. In the following examples, the head noun is underlined.

9.22 *ngalyarra-ju nga=yarra=napalany ma-na*
s/he&I-ERG CAT=1DU.EX.S=3.DU.O get-PST

[wulala ***wupa-karra*** *<u>kuwi</u>] [kujarra <u>kularrapulu</u>* ***purlka-arra****]*
[a.lot **small-MAN** <u>meat</u>] [two <u>turtle</u> **big-DU**]
'We two caught two lots: a lot of small fish and two big turtles.' (G128)

The freedom to express modifiers around the head in Mangarla allows great variation of expression. However, the general ordering principles outlined here are subject to a number of practical restrictions. These relate to: the number of modifiers allowed, semantic compatibility, the co-occurrence of particular functions, and the order of nominal subtypes performing the same function within one NP.

Figure 9.1 optimistically permits more than 10 modifiers within a single NP but in general, NPs appear to have an optimal length, restricted most likely for pragmatic (and perhaps prosodic) reasons, to give the hearer enough information to identify or enhance their understanding of the referent without losing the flow of the discourse (as per Grice's (1975) maxim of quantity). Further elaboration of the referent is possible through additional NPs, apposed or adjoined (§9.6). The inflated Figure 9.1 is not unlike that which describes the placement of English adjectives which also allows more slots than are ever filled; up to ten adjectival slots (potentially with multiple entries in each) are given to predict the order of any combination which might potentially occur, but in actual use, no more than three or four are usually found (Dixon 2004:10, Cambridge University 2019).

While the 'doubling' of all modifier functions is permitted (point (iv) above), a distinction is made in the behaviour of the outer two slots from the inner two. Only the peripheral determiner and adverbial slots can be filled on both sides of the entity simultaneously. In

(9.23, 9.25) two determiners are split around the entity, while in (9.24), the first and final elements of the locative NP are STLs functioning adverbially.[31]

9.23 *pantu* *mininy* *nganarni-kura*
MED language we.all.EX-GEN
'that language of ours' (1D20)

9.24 *wajarri=na* *wantayi* *ngarrungu*
NEG=3SG.S be.NPIRR person

[kurlila *panara-ja* *paniyarti-kura-ja* *mulnyi-ngka* ***janyja-ngka]***
south MED-LOC they-GEN-LOC soil-LOC **today-LOC**
'No-one can stay there in their country in the south today.' (2D29)

For unknown reasons, both pre- and post- head qualifier slots are never filled in the same phrase, and semantic incompatibility disallows multiple quantifiers to independently modify an entity, either in the same slot or split around the entity. However, both can be filled by embedded (§9.4.2) and potentially conjoined (§9.4.1) NPs, whereas determiner and adverbial functions cannot.

When particular functions co-occur, a preference for certain configurations means that others predicted by Figure 9.1 are rarely found. For example, quantifiers and qualifiers co-occur infrequently and when they do, speakers prefer to place the quantifier before the head and the qualifier after it (shown in the second coordinand of (9.22) *kujarra kularrapulu purlkarra*). The first conjunct, *wulala wupakarra kuwi* is one of only a few examples in the corpora where both modifiers occur before a head noun, and no examples are available to confirm the proposed post-head order ENTITY>*QUALIFIER*>*QUANTIFIER*. Rather, it is assumed on the basis of the relations between the other functions in the template.

[31] While the temporal nominal *janyjangka* is perhaps ambiguous here as a clausal modifier in a separate NP, its prosodic and morphological features and its position within the clause indicate that it functions within the NP to inform about the currency of the entity rather than the event. Similar semantic ambiguities occur with other adverbial-type nominals in non-local NPs, such as *yalparra* 'again, more, later', *yulpurru* 'olden days (ones)'. These might also be considered to function as quantifiers or qualifiers, but as Louagie (2017:196) notes when discussing the determiner slot 'it is unclear where the "cut-off" point is in the string of modifiers' *i.e.* where one functional slot finishes and the next begins, particularly when potentially intervening slots are unfilled.

In general, speakers rarely place more than one modifier on both sides the head. There seems to be no significant difference regarding which side of the head contains most modifiers. In (9.24), the majority of modifiers are pre-head while in (9.25) post head modifiers outnumber those in pre-head position.

9.25 *panara-ja* *panjurn-ta* *mininy-pinti-ja* *nyuntu-kura-ja*
MED-LOC wood-LOC language-thing(NM)-LOC you.SG-GEN-LOC
'on that tape recorder thing of yours' (1D107)

The recursive nature of some functional slots allows multiple expressions to perform the same function contiguously within the one slot. Adverbials and determiners are the most common recurring elements, the latter being widely noted in many languages (*e.g.* Hawkins 1983:213, Himmelmann 2001:840, Plank 2003, Louagie and Verstraete 2015 and Louagie 2017). In (9.26) two nominals in adverbial function occur before the entity, and in (9.24) and the alternative expressions of (9.27-28), two determiners occur contiguously (*cf.* (9.23, 9.25) where they are split).

9.26 *kurlila-ngu* *yala-ngu=na* *jurr-ka-ninya*
south-ABL DIST-ABL=3SG.S descend-AUX-NARPST

[kaniny-parrakurna ***warlparni-ngarra*** *Martuwarra-karti]*
below-wards to.here-about Fitzroy.River-ALL
'From way out in the south, they came down around here to the river.' (1D5)

9.27 *nyaltu* *nyuntukura* *jipi*
PROX you.SG.GEN man
'this man of yours' (FKNgi96)

9.28 *paparla* *nyaltu* *ngijakura*
brother PROX I.GEN
'this brother of mine' (FKNgi2)

The ordering of multiple lexemes in the same function is constrained according to the prototypical function of their nominal subtype (detailed in §9.3). This ordering remains the same regardless of which side of the head the multiple expressions occur. In other words, while the pre- and post-head slots maintain the same distance from the entity, the lexemes

within them do not. This can be seen in (9.27-28) where the ordering of a demonstrative and genitive remains the same in pre- and post-head slots, and when split around the head (9.23). Hence, (9.29) can only be interpreted as two NPs in a verbless clause, since it does not conform to the word order of the NP proposed here, (*i.e.* the genitive in determiner function of the predicate NP precedes the demonstrative which must function as the subject or post-posed deictic).

9.29 *ngijakura kampaja nyalartu*
I.GEN mother PROX
'My mother is this one.' (2J43)

Further research in the NP in Mangarla could also investigate the possible semantic, functional or pragmatic subtleties involved in alternative expressions such as pre- and post-head placement of modifiers and any prosodic variations associated with different word orders.

9.3 Nominal functions within the NP

This section examines each of the functions in the NP and the nominals which perform them. Each of the five functional layers shown in Figure 9.1 will be discussed in order starting at the nucleus and moving outwards: from ENTITY, through QUALIFIER, QUANTIFIER, DETERMINER and ADVERBIAL.

Most members of the nominal class are multi-functional, and words from different nominal subcategories may perform the same function, although in practice this is limited and subject to semantic restrictions. There is generally a correspondence between functions and the types of lexeme which prototypically perform them. For example, no number word is found to function as an adverbial to locate an entity in time or space, just as an STL can't be used quantify it.

The function of a multi-functional element in a given NP is hypothetically identified according to the postition it occupies relative to the other elements. However, in Mangarla, the order of elements in a single function can vary due to the availability of pre- and post-head slots, and the ability to split elements around the head. When all modifiers are expressed on one side of the head, word order remains relatively static even if the function

of an element changes. This may be because a word can perform functions which occupy adjacent slots, for example, *wanyju* 'one' can function as DETERMINER or QUANTIFIER. Furthermore, since there are rarely more than two or three modifiers, a functional slot which separates two others which may be performed by one word, might remain unfilled. For example, a possessive expression can function as DETERMINER or QUALIFIER in languages such as Gooniyandi (McGregor 1990:270), Kayardild (Evans 1995:236) and Martuthunira (Dench 1995:190, 192), where it occupies different positions accordingly. In Mangarla, this would also be the case, with a quantifier hypothetically preceeding it in QUALIFIER function but following it as DETERMINER, as in Kayardild. However, the co-occurrence of a possessor and quantifier is unattested in the Mangarla data, leaving the precise function of a genitive expression (and other multifunctional elements in similar contexts - see footnote 31) difficult to determine without recourse to detailed semantic analysis which is beyond the scope of this work. A more detailed study of the distribution of multi-functional elements may reveal functional differences, but is not expected to alter the word order findings described here, which of course can alter under the influence of pragmatic demands.

All functional slots can be filled by simple lexemes or complex elements, including reduplicated stems, compounds and derived nouns (§4.2). Some may be filled by conjoined NPs and embedded NPs and clauses, which are described in §9.4.

9.3.1 Entity

There is only one entity slot, the core and semantic head of the NP. The function is performed by nominals of any subcategory. However, prototypical entities are personal pronouns (*e.g. nyuntu* (9.31)) or general nominals (§3.2.1), including: names of people (*Jesus* (9.30)) and places), terms which denote relationships and social roles (*purrku* 'old man' (9.30), *paparla* 'brother' (9.28)), substantives which designate features of the physical world, material objects or beings (*karli* 'boomerang', *warnku* 'stone, hill' (9.55), *ngapa* 'water' (9.14), *wangarr* 'shadow', *kularrapulu* 'turtle' (9.22)), and abstract nouns (*yini* 'name', *mininy* 'language' (9.23), *kuli* 'anger/trouble').

9.30 *burrgu ngu ṉana dyabir mana Jesus*
purrku**-ngku nga=na japirr-ma-na **Jesus
old.man-ERG CAT=3SG.S ask-AUX-PST **personal.name**
'The magistrate asked Jesus.' (McK:RT)

Single word NPs most clearly demonstrate the ability of all types of nominal to function as the head. Although non-personal pronominals are most commonly found as modifiers, they are also common entities. In (9.31) the indefinite/interrogative *ngantu* denotes the unknown entity in the object NP and in (9.36), the subject NP is the medial demonstrative *panartarra*.

9.31 *nyuntu-ngku **ngantu** nga=n warri-n*
you.SG-ERG **what** CAT=2SG.S seek-PRES
'What are you looking for?/ You are looking for something.' (93sen28)

General nominals which denote attributes most commonly fill qualifier slots but can also function as an entity, in addition to attributes derived by non-core case markers, such as allative (*e.g. yangka-karti* [behind-ALL] 'the last/ youngest'), source (9.34), or comitative (9.35).

9.32 ***purlka-arti**=ni wanti*
big-PL=3PL.S be.PRES
'They are big ones.' (Nya51)

9.33 *ngawayi **mapu**=na=ngka=pala ngurrja-na, kujarra-ju*
yes(NK) **good**=3=2SG.OBL=3DU.S talk.about-PST two-ERG
'Yes, those two told you a good one.' (2D1)

9.34 *pina-ma-na=ni **kurlila-ng-angka-ju** pina-ma-narrinya Nyikina*
hear-AUX-PST=3PL.S **south-EP-SRC-ERG** hear-AUX-NARPST Nyikina
'They understood it, those people from the south, understood Nyikina.' (1D9)

9.35 ***mannga-artu-ju** nga=na=nya kanti-na*
fat-COM-ERG CAT=3SG.S=1SG.O hit-PST
'The fat one hit me.' (3Sen41)

Other expressions which are generally used adnominally can also fill the ENTITY slot. Nouns and pronouns in genitive case primarily function as determiners, but are commonly used to identify people through association (*Nyunkun-kura* 'the family of Nyunkun', *nganarni-kura-arti* [we.all.EX-GEN-PL] '(relatives of) ours').

9.36 ***marnin-kura***=*pala ka-ngarrinya panarta-arra-ju*
woman-GEN=3DU.S carry-NARPST MED-DU-ERG
'Those two carried women's (business).' (Nya76)

9.37 *lambugura ñaniyi inbuñurinya*
lampu-kura *nga=ni yinpu-ngarrinya*
sleep-GEN CAT=3PL.S spear-NARPST
'They speared the sleeping people.' (McK:96)
(*lit.* 'They speared those possessed by sleep.')

Quantifiers less commonly fill the entity slot (9.38, 9.54).

9.38 *gudyara dyu nabala gangarinya baga wanda*
kujarra-*ju nga=pala ka-ngarrinya paka wanta*
two-ERG CAT=3DU.S carry-NARPST wood cross
'The two carried the cross.' (McK:RT)

While the link between the referent and the hearer's knowledge is not always obvious, an entity referred to by its properties, number or possessor is usually semantically retrievable from either prior mention or pragmatics. As Jones (2011:236) puts it: "There is little difference between an account which treats these nominals as modifiers with elided heads and one which treats them as heads." The latter is preferred here, and as referential entities, they can be modified. However, nominating one element as the semantic head of the phrase is problematic at times, as most nominals are not only multi-functional but morphologically and categorially indistinct from each other. While the flexibility of modifier placement in relation to the head also muddies the syntax of the following examples, their semantics are less ambiguous.

9.39 *pantu wipirti-marta*
MED small-CPR
'that littler one'/ 'that one which is smaller' (1J148))

9.40 *pantu wakaj-kuyarra*
MED complete-every
'that whole lot'/ 'all of those ones' (1D26)

9.41 *kurlilangangkarti wakaj*
south.SRC.PL complete
'all the southerners'/ 'the whole lot, who came from the south' (1R53)

9.3.2 Qualifiers

Qualifiers are positioned in the second layer out from the head. By providing additional information, qualifiers facilitate the identification of the referent from others by narrowing the field of possible candidates. They modify an entity by attributing some quality or characteristic to it and can be negated or otherwise modified by words signifying degree. General nominals which would be considered adjectives in other languages are prototypical fillers of this slot, including the kinds listed below in semantic domain:

physical

dimension/shape: *wupa, wipirti* 'small' *purlka* 'big', *kungka* 'short', *junga* 'straight'

properties: *lurntu* 'fat, fatty', *marntu* 'rotten', *parrily* 'alert', *tanyji* 'hard', *jaliny* 'sharp', *parra~parra* 'hot, heat', *pirriya* 'cold', *punyja* 'slow', *lalka* 'dry', *jurla* 'blind', *takurr~takurr* 'bumpy, rough', *wanyjirra* 'different, other, foreign';

states: *ngurtin* 'alone', *pukarr* 'cooked', *pirnapirna* 'clean', *manyula* 'tired', *marranyan* 'hungry', *marlka* 'full, sated', *nyarlu* 'dead'

non-physical

values: *yakurr* 'no good' *wulyu* 'good', *mapu* 'good', *ningarra* 'true',

emotions: *kuli* 'anger, angry' *pukurr* 'sleepy', *wiriya* 'happy'

human propensity: *nila* 'clever, know(ing)', *ninti* 'knowing', *ngurrpa* 'ignorant', *wangarta* 'crazy', *pararrka* 'feeling sorry'

Substantive nouns can also qualify an entity by ascribing an inherent property to the referent as *pirntirri* 'plain, cleared land, flat, smooth' does in *pirntirri walu* [plain forehead] 'bald'. Colours of entities are rarely referred to and while some appear to be purely colour terms (*kuru* 'black' and *jili* 'red') others are conveyed by substantives which are

characterised by the colour referred to: *karntawarra* [yellow ochre] 'yellow', *pirtily* [young grass] 'blue/green', *jurntapal, pulkaru* [ash] 'white', *mulnyi* [soil] 'brown'. All can be used adnominally: *yawarta mulnyi* [horse soil] 'brown horse' *kuru karrkin* 'black skin', *wanyanu jili* 'red sandhill'.

As well as taking some nominal morphology, a few common qualifiers are multiply classified, functioning also as sentence particles, interjections and/or preverbs. These include *ningarra* 'true, truth', *murta* 'nothing' and the negative *wajarri*. The following examples show these functioning as qualifiers.

9.42 *wajarri wanyjirra*
NEG other
'no other' (HTS51)

9.43 *ningarra maparn*
true doctor
'a true cleverman' (1J160)

9.44 *wipirti ningarra=nyjangu*
small true=INDEED
'a really really small one' (1J40)

9.45 *lujim-ka-narrinya wanyjirraru murta ngarrungaru*
lose(K)-AUX-NARPST other.PL.ERG nothing person.PL.ERG
'He died with some other crowd.' (FK24)
(*lit.* 'Other unimportant people lost him.')

Some STLs function as underived qualifiers (9.46), but more commonly, they employ adnominal case or derivational suffixes (9.47-48).

9.46 *wira-nya=ni* ***kajalu~kajalu-ju*** *ngarrungu-ju*
shoot-PST=3PL.S **ahead~RDP-ERG** person-ERG
'The people who got there earlier attacked him.' (Ngi79)

9.47 *nyalta* ***kankara-ngu*** *ngarra~ngarra*
PROX **up.top-ABL** escarp~RDP
'this descent from the top' (MC17)

9.48 *ngarrungu* ***kurlila-ng-angka***
person **south-EP-SRC**
'people from the south' (1D6)

All nominal subtypes can become derived qualifiers in the same way: *wirrpan mulnyi-yangka* [bush.onion soil-SRC] 'underground onion', *panjurn mininy-pirri* [wood language-PURP] 'the thing for words (microphone)', *yinal lintij-karra* [spear flaked.quartz-MAN] stone-headed spear'. The comitative suffix is frequently used to form attributives: *Nyikina-artu mininy* [Nyikina-COM language] 'speakers of Nyikina language', *Mangarla-artu ngarrungu* [Mangarla-COM person] 'Mangarla speaking people', *ramu-yartu* [pattern-COM] 'striped', *purrma-artu* [stomach-COM] 'pregnant'. The privative, formed in this way from the negative, also acts as a qualifier: *ngapa wajarri-artu* [water NEG-COM] 'water-less', *jaku wajarri-artu* [shovel NEG-COM] 'without a shovel'.

9.49 *nyaltu wajarrartu mangarri*
PROX NEG.COM veg.food
'This one has no food.' (93sen23)

Qualifiers have flexibility to occur before or after the head, attested in roughly equal numbers, and no difference in meaning has been identified (9.50-51). This statistic is similar in Jaru (Tsunoda 1981) and Walmajarri (Richards 1979) but quite different from many languages, including Western Desert dialects, where attributives mostly occur post-head (Bowe 1990, Goddard 1985, Sharp 2004, McGregor 1990).

9.50 *purlka kuwi*
big meat
'a large prey' (2J117)

9.51 *jurru purlka*
snake big
'a big snake' (3Sen85)

The qualifier slot is recursive, allowing more than one lexeme to perform the same function (9.52). However, in practice multiple qualifiers are not common and no more than two are

ever found. These always occur together on the same side of the entity, unlike determiners and adverbials which can be split around the head in both allotted slots.

9.52 *mapu~mapu purlka mininy*
good~RDP big language
'a very good, important story' (1D89)

9.53 *wanyanu murta wipirti*
sandhill nothing small
'not so small sandhills' (Nya42)

9.3.3 Quantifiers

Quantifiers occupy the third layer away from the entity. These enumerate referents or specify their quantity. Prototypical quantifiers are three number words, *wanyju* 'one', *kujarra* 'two', *murrkun* 'three, a few', and collective terms, such as *wulala* 'a lot, plenty', *panu* 'many, much', *wakaj* 'complete, all' and *jaya* 'mob'. Enumeration of entities greater than three is made with compounds, such as *wanyjukarti-kurrapa* [one.ALL-hand] 'five', *kujarrakarti-kurrapa* [two.ALL-hand] 'ten' and conjoined NPs (§9.4.1) as those in (9.54), where the speaker is counting baby snakes in a picture.

9.54 *wanyju, kujarra, murrkun, kujarra-pa kujarra, kujarra-ku wanyju*
one two three two-and two two-DAT one

panu=yiny ka-ngu kujarra-pa kujarra-pa wanyju
many=3PL.O take-INF two-and two-and one
'One, two, three, four, five, she's taking many, five.' (PSan68-9)

As adnominal modifiers, (9.55-56) quantifiers can be placed on either side of the entity.

9.55 *kujarra warnku-yarra*
two stone-DU
'two hills' (Nya31)

9.56 *parnku-yarra kujarra*
cousin-DU two
'two cousins' (FKNgi23)

However, most NPs show a clear preference for placing quantifiers in the pre-head slot, particularly when accompanying a qualifier which speakers then prefer to place after the entity (9.57), as explained in §9.2.4. Examples (9.58-59) show that quantifiers follow pre-head determiners but precede post head determiners.

9.57 ***kujarra*** *kuwi* *wipirti-marta*
two meat small-CPR
'two littlish animals' (1J136)

9.58 *pantarra-ju* ***kujarra****-ju* *kakarra-ju*
MED.DU-ERG **two-**ERG uncle.DU-ERG
'those two uncles did it' (2J32)

9.59 *papalarra* ***kujarra*** *pantarra*
brother.DU **two** MED.DU
'those two brothers' (1J153alt)

A few nominals primarily used to signal size or time also function as quantifiers.

purlka 'big, lots' *yalparra* 'again, more, later' *wipirti* 'small, few'

The indefinite/interrogative pronominal quantifier is used to indicate that a quantity is unknown to the speaker. As with other interrogatives, this is always the first element of an NP.

9.60 *nyajangu* *kartiyarti*
how.many children
'how many babies' (PSh57)

Number words are used infrequently in many Australian languages. Certain nouns may be unspecified for number, and quantification can be achieved by other methods such as reduplication (§4.2.1) and number suffixes (§4.6), making a quantifier redundant. In Mangarla, methods which omit a quantifier are preferred when the NP contains a possessive determiner or more than one modifier as in (9.61) where number is conveyed by the dual suffix on all elements including the two modifiers.

9.61 *kaka-**arra**-ju pantu-**arra**-ju ngijakura-**arra**-ju*
uncle-**DU**-ERG MED-**DU**-ERG I.GEN-**DU**-ERG
'my two uncles did it' (2J27)

Multiple quantifiers never occur for semantic reasons but as shown above, complex number terms frequently involve conjunction/disjunction or embedded NPs (§9.4).

9.3.4 Determiners

The second outermost layer of the NP contains lexemes functioning as determiners. These locate the referent within the world of the discourse, identifying its status as established (and thus definite), or as indefinite, not yet established but potentially accessible in the mind of the speaker. Determiners are the most common modifiers in Mangarla, with more than half (58%) of multi-lexeme NPs containing at least one. Overdetermination is common as it is in other Australian languages (Louagie and Verstraete 2015, Louagie 2017). A range of nominal subtypes can perform this function; some, such as adnominal demonstratives and possessives, do so exclusively, while others prototypically perform other functions such as quantifying and qualifying. The status of personal pronouns as determiners has been argued by investigators since the 1960s (*e.g.* Hale 1973, Lyons 1999, Blake 2001, Louagie and Verstraete 2015). However, the semantic contribution of personal pronouns to the NP and apparent constraints on their presence within it make them different to other elements in this function. Adnominal personal pronouns are discussed separately in §9.3.4.2.

9.3.4.1 Demonstratives, indefinites, possessors, numbers, comparatives

The most common fillers of determiner slots are demonstratives. The distal, medial and proximal spatial demonstratives (§5.3.4) indicate the relative distance of the referent in the discourse or the environment (9.62-64). They can modify all nominal subtypes including proper names (9.63). The adnominal recognitional demonstrative (§5.3.3) specifies the referent as belonging to a set of potential candidates known to the addressee (9.64-65).

9.62 ***pantu*** *purrku/ purrku* ***pantu***
MED old.man/ old.man **MED**
'that old man' (Ngi89/93sen40)

9.63 ***pantu*** *Ngujpan* Gunner
MED personal.name
'that Ngujpan 'Gunner'' (Ngi39)

9.64 ***nyaltu*** *ngapa* ***nguju*** *purturr*
PROX water **REC** middle
'this waterhole (previously mentioned) halfway' (93sen76)

9.65 ***ngujartu*** *marlpurlu*
REC baby.carrier
'remember that coolamon for babies' (HTS49)

Possessives (nouns and pronouns in genitive case) are the second most common determiner, formed from proper names (*Mijipa-kura paparla* [personal.name-GEN elder.brother] 'Mijipa's brother') and general nouns (*wayitpal-kura ruwut* [whitefella(E)-GEN road(E)] 'the whiteman's road) in addition to personal pronouns (9.66, 9.69-70).

9.66 ***ngijakura*** *kampaja/ kampaja* ***ngijakura***
I.GEN mother/ mother **I.GEN**
'my mother' (1P53/1P4)

Other lexemes which function as determiners include a few terms which otherwise function as quantifiers or qualifiers. The number *wanyju* 'one, a certain', is used as an indefinite determiner used to specify a participant whose precise identity is of little significance, and the quantifier *wakaj-kuyarra* 'all-complete' is also found as determiner in *wakaj-kuyarraju nganarniju* 'the lot of us do it'. Comparative terms which can function as qualifiers also function as determiners. *Wanyjirra* 'other, different, next' is used to distinguish the referent of the NP from some referent already established in the discourse, and *nuwa* 'same' specifies the referent as something the hearer is already familiar with. These words frequently occur with other determiners (*e.g. pantu wanyju paparla* [MED one elder.brother] 'that particular brother') and together.

9.67 ***wanyju wanyjirra*** *mayaru/ mayaru* ***wanyju wanyjirra***
one other building/ building **one other**
'another house' (*cf.* FK57/Nya88)

The indefinite/interrogative, *ngantu* 'what', functions as an indefinite determiner which indicates that the referent has not been previously identified or is not known to the speaker.

9.68 *ngantu kuwi*
what meat
'what animal/some animal' (PSh108)

Examples (9.62) and (9.66-67) show determiners expressed in pre-head and post-head slots with no discernable difference in meaning. In general, speakers show a preference for the pre-head slot, particularly for spatial demonstratives. However, certain types of determiner seem to be subject to pragmatic and/or semantic constraints. Indefinite/interrogative pronouns always occur in the pre-head determiner slot (9.68), as they tend to encode information that is in focus and are never placed after the entity.

The recognitional demonstrative only occurs in the pre-head determiner slot in its longer form (9.65), and never with other modifiers. However, shorter form generally follows the element the speaker wishes the hearer to remember, and rarely occurs with other modifiers. In (9.64), a spatial demonstrative fills the pre-head determiner slot while the recognitional occupies the post-head determiner slot and is contiguous with the entity, while the STL *purturr* occupies the final adverbial slot. However, this short form is much more versatile than the longer pronominal and has variable scope (lexical, phrasal or clausal - §5.3.6.4). It can occur after any element the hearer is urged to recall and often forms embedded NPs (§9.4.2).

When a possessive determiner is the only modifier in an NP, the frequency of its placement in pre- and post-entity slots is roughly equal (9.66). However, when it co-occurs with another modifier (in any other function), there is a strong preference for a possessor to be placed post-entity (9.69, 9.71b-c). A single exception of a possessive determiner in the pre-head slot with a qualifier occurs in McKelson's (n.d.) translations of religious texts (9.70). However, in both instances the two modifiers remain on different sides of the head.

9.69 *purlka kunyarr* ***nganarnikura***
big dog we.all.EX-GEN
'our big dog' (1P20)

9.70 ***bani gura*** *marnga* *wararra*
pani-kura *manga* *warrara*
s/he-GEN girl sorry
'his sick daughter' (McK:RT)

A pre-head possessor is most likely to be the sole modifier or in the company of other determiners (9.71a). All possible expressions of a demonstrative and possessor in determiner function predicted by Figure 9.1, subject to the corestriction rules of (9.72) are shown in (9.71a-c).[32] Statistically, in 82% of similar examples, b) or c) is chosen.

9.71 *a) nyaltu* ***ngijakura*** *mininy/*
PROX **I.GEN** language

b) nyaltu mininy ***ngijakura/***
PROX language **I.GEN**

c) mininy nyaltu ***ngijakura***
language PROX **I.GEN**
'this story/language of mine'

This kind of 'determiner stacking' is common (Himmelmann 2001, Plank 2003, Louagie 2017). Up to three lexemes functioning as determiners are found to co-occur in pre-head position or split around the entity (9.73-74) but these maintain a fixed order in relation to each other, according to their prototypical function or nominal subtype. Demonstratives are placed ahead of the number *wanyju* 'one, a certain, the same' (a prototypical quantifier), which precedes qualifier types that also attribute characteristics ('same', 'other' *etc*.). Genitives are always placed last. Template (9.72) shows these ordering restrictions which accord with the findings of Louagie (2017:198). Neither the indefinite/interrogative pronoun nor longer recognitional are attested as co-occurring with other determiners. The short recognitional is not found within a contiguous series of demonstratives (9.64).

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[32] Example (9.29) shows that reversing the order of the possessive and the demonstrative around the head is not possible within the NP.

9.72 ⎧ *spatial demonstrative ^ number ^ comparative ^ possessor*
⎨ *indef/interr pronoun*
⎩ *long recognitional*

While all four listed determiner types are never found together, the following orders are attested: demonstrative>possessor (9.71), number>comparative (9.67), and demonstrative>comparative>possessor (9.73), number>comparative>possessor (9.74).

9.73 *pantu wanyjirra ngijakura Panaka-nyangu*
MED other I.GEN Panaka-DY
'that other Panaka relative of mine' (FK67)

9.74 *wanyju wanyjirra ngijakura paparla*
one other I.GEN elder.brother
'another older brother of mine' (FK17)

This slot-internal order is maintained regardless of whether determiners are contiguous before or after the entity (9.67) or split around the head (9.71).

9.3.4.2 Non-possessive personal pronouns

It has been argued that underived free personal pronouns function as determiners when used adnominally. Blake (2001) and Louagie and Verstraete (2015) give good overviews of the history of this proposal dating back to Postal in 1966. In Australian languages, Hale (1973) and Blake (2001) propose a grammatical category of Determiner, a demonstrative-pronominal superclass which is the expressed or potential head of the phrase, and is the repository of the grammatical features registered by the BP complex.

Shared distribution is one argument in support of pronouns as determiners. Like demonstratives, they occur in pronominal and adnominal environments (§5.3.5) and in the latter, generally occupy the same postion in the NP (Louagie 2017:203). Another argument relates to their function; when used adnominally, both specify the referent as definite (*i.e.* identifiable) and locate it within the world of the discourse (Lyons 1999:26-32).

The determiner analysis is particularly strong for third person pronouns. Unlike those with first and second person referents, to which I will return, an adnominal third person pronoun

'does not establish reference independently from the nominal, but serves as a modifier of the nominal, providing information about the definiteness and/or specificity' (Louagie and Verstraete 2015:159). Syntactically, the noun and free pronoun in examples such as (9.75-76) are undifferentiated and any BP which registers the NP argument is consistent with both.

9.75 *karrpu-na=nany panjurn-ta paniyarti ngarrungarti*
tie.up-PST=3SG.S>3PL.O wood-LOC they person.PL
'He tied them aboriginal people up to a tree.' (Ngi69)

9.76 *pani-yaru jipi-yaru*
s/he-PL.ERG man-PL.ERG
'they adult men did it' (1R20alt)

The position of a free pronoun, at the edge of the NP clustering together with demonstratives, is also evidence of a functional relationship which has scope over the whole expression (p. 174). In the first two of three preposed NPs in (9.77), the pronoun and demonstrative are freely alternated, both functioning to uniquely locate the referent in the discourse and both competing for the same pre-head functional slot of determiner.

9.77 *pani-yaru ngarrungaru, panartaru ngarrungaru, pantarti,*
s/he-PL.ERG person.PL.ERG MED.PL.ERG person.PL.ERG MED.PL

nyuntu=nga=ni-ya yaji-ngarri
you.SG=2SG.OBL=3PL.S-EP wait-IPFV
'They the men, those men, that lot, they're waiting for you.' (FKsen17)

Pronouns and demonstratives can co-occur, and as with other cases of multiple determination (§9.3.4.1), their relative order is fixed; personal pronouns always precede demonstratives (9.78-79). In (9.80) the pronoun occurs before another functional determiner, a possessive noun. In all cases, the personal pronoun occurs on the outer leftmost edge. Unlike all other lexemes in determiner function, personal pronouns can never be placed after the noun.

9.78 *paja-nku=rtiny nga=na pani pantu ngarrungu*
bite-FUT=EXPECT CAT=3SG.S s/he MED person
'It is ready to bite that man.' (PSan102)

9.79 *nyumpala-ju kanti-rra=pala paniyarti pantarti kunyarrarti*
you.2-ERG hit-IMP=2DU.S they MED.PL dog.PL
'You two, hit those dogs!' (FKsen55)

9.80 *dyiangula bani Wulu gura walagu*
jiya-nku=la pani wulu-kura walaku
follow-FUT=1PL.IN.S s/he father-GEN son
'We will follow him the son of the Father.' (McK:RT)

If personal pronouns in these constructions are to be treated as determiners, the hierarchy given in (9.72) must be revised to allow for this (9.81).

9.81 *personal pronoun^spatial demonstrative^number^comparative^possessor*
indef/interr pronoun
long recognitional

It is an untested assumption that indefinite/interrogative pronouns and personal pronouns cannot co-occur because of their pragmatic and semantic incompatibility, each encoding opposite values of definiteness and contextual knowledge. The recognitional, however, is not subject to the same restrictions and although it may hypothetically occur with a personal pronoun, no such examples are attested. While an NP does not require a personal pronoun to have a definite reading (see Bittner and Hale 1995), the presence of one seems to cause it to do so (see Lyons 1999). Every NP in the Mangarla corpora containing an adnominal pronoun is definite and specific.

However, the analysis of underived first and second person pronouns as 'personal determiners' (Lyons 1999:310-313) is less convincing. Firstly, there appears to be a

person/number mismatch between them and the nominal they 'modify',[33] and secondly, they are differentiated from their third person counterparts by the fact that they add semantic content to a reference, independently to that of the nominal with which they co-occur (Louagie and Verstraete 2015:163). Thirdly, their control of agreement in the BP complex indicates that they are the head of the NP.

9.82 *marlka=ngarni wani-nyarrinya kartiyarti nganarni*
sated=1PL.EX.S be-NARPST child.PL we.all.EX
'We children stopped satisfied.' (HTK32)

9.83 *kamurra ngayu wipirti=rna parti-nyarrinya*
uncertain I small=1SG.S go-NARPST
'I'm unsure, I was only a little one travelling.' (1J17)

9.84 *ñayu ngu gadu ngu na milganyarinya wulu*
ngayu-ngku kartu-ngku=rna mil-ka-nyarrinya wulu
I-ERG child-ERG=1SG.S eye-AUX-NARPST father
'I watched my father [as a child].' (McK:PS9)

The nominals in these NPs may just be simple modifiers. Like other modifiers, they agree with the pronoun head in number and case and semantically, they refine its reference just as other modifier types and can locate (9.85) or quantify (9.86) personal pronouns.

9.85 *nyurra=nyurra purta warlparni ngayu-karti Marntarninyan-karti*
you.all=2PL.S come.PRS to.here I-ALL placename(E)-ALL
'You all come down towards here to Mt. Anderson to me.' (A1)

9.86 *marra-rra=ji nyurra-ngku murrkun-tu*
say-IMP=?1SG.OBL<PL you.all-ERG three-ERG
'Talk (?to me), you three!' (G58)

[33] Lyons (1999:313-315) solves this problem by conflating definiteness and person, arguing that overt person marking in an NP is incompatible with indefiniteness and that non-pronominal NPs without a definite (person encoding) determiner do not actually encode person, despite their traditional treatment as third person.

Alternatively, they might be compared to inalienable possession (§10.4.3) and inclusory (§10.3) constructions, in which a personal pronoun can co-occur with a nominal that specifies a part or subset of the referent. If we were to say that humans are capable of many incarnations throughout a lifetime, then any one of those may be deemed a part of a whole existence. Hence, in the constructions described in this section, the nominal may specify a subset which denotes an alternative incarnation or stage of life; just as a body part in an inalienable possession construction is inseparable from the entity to which it belongs, so the childhood or other social role of a person, past or present, is inseparable from a person's entire existence. In (9.82), the pronoun *nganarni* may be defined semantically as the sum of all aspects of the lives of the referents and their status as children only one incarnation of many throughout their lifetimes, true at the time of the event described, but which may no longer be so.

The nouns in all three of these constructions function like the subsets in superordinate (generic-specific, part-whole and inclusory) constructions to denote the type or part of a larger entity (§10.1). They specify one of many possible forms of the pronominal referent, true at the time of the event described, but which may no longer be so. The temporary nature of this state distinguishes the construction from generic-specific and part-whole constructions. It is also distinguished from inclusory constructions by its ability to refer to singular as well as plural entities (9.83-84).

There are distributional differences too between adnominal personal pronouns. Third person pronouns appear to be limited to NP-initial position: if they are NP heads, they never occur with pre-head modifiers; if they are modifiers, they never occur in post head position, unlike demonstratives. However, first and second person pronouns do not always occupy the first slot of the NP (9.82), and while further research may reveal otherwise, nor do they co-occur with other demonstratives, like third person pronouns.

9.87 *nganarni pantarti/ nyuntukurarti kartiyarti*
we.all.EX MED.PL/ you.SG.GEN.PL child.PL
*'we those/your children

Thus, for reasons of their semantic contribution, syntactic control, and by analogy with superordinate constructions, personal pronouns are treated as the head of the NP in which they occur and coreferent nominals are deemed modifiers. Despite the differences in word

order restrictions and their similarities to and co-occurrence with person-concordant demonstratives, there seems no convincing reason to treat third person pronouns any differently to first and second person pronouns in NP function. Hence, all personal pronouns in this work are entities.

9.3.5 Adverbial modifiers

The outermost edges of the phrase contain nominals in adverbial function. They are most commonly found in NPs functioning as local adjuncts, providing a spatial or temporal setting for the event as a whole or for a participant in ENTITY function. They can also contribute information about the manner in which an entity behaves.

Adverbials are almost exclusively words from the spatial and temporal nominal subclass (STL) which includes directionals, (*kurlila* 'south' *etc*., *kanka* 'up' and *kaniny* 'down', *warlparni* 'to here, towards this way'), and temporals (such as *jartarrangka* 'a long time (ago)', *yulpurru* 'early', *janyja* 'today/now' and the seasons *laja* 'hot season' *etc.*). A number of examples are given in Tables 9.1 and 9.2 and in earlier sections (9.5) and (9.24) repeated here as (9.88-89).

9.88 *murta pantu mininy kurlila-ngu nga=ni jurr-ka-ninya-angka*
nothing MED language south-ABL CAT=3PL.S down-AUX-NARPST-SRC

***[kaniny-parrakurna** nyaltu-karti Nyikina-karti ngarrungu-karti]*
[below-wards PROX-ALL Nyikina-ALL person-ALL]
'This story is only about how they have come from the south down here to these Nyikina people.' (1D37)

9.89 *wajarri=na wantayi ngarrungu*
NEG=3SG.S be.NPIRR person

*[**kurlila** panara-ja paniyarti-kura-ja mulnyi-ngka **janyja-ngka]***
[**south** MED-LOC they-GEN-LOC soil-LOC **today-LOC**
'No-one can stay there in the south in their country today.' (2D29)

9.90 *wurna yarrkal, [wurna **kaniny-jurra]**,*
move.off hunting [move.off **below-down**]

[wurna kuwi-karti ***nyarra-kurna]***
[move.off meat-ALL **away-wards**]
'off on a hunting trip, a trip down below, a trip for game that way' (1J173)

Spatial demonstratives in locational NPs (9.88-89, 9.92) could be interpreted as adverbial (to/at here/there *etc*.) or as determiner (to/at this/that (place/river) *etc*.). Their position in the NP is ambiguous since the outer edge of the adverbial slot coincides with the beginning of determiner slot. However, (9.91) shows the medial demonstrative in both determiner and adverbial functions, in slots on either side of the head.

9.91 *pantu ngarrungu kukurl-mangari* ***panpara-ja***
MED person bushman-Dreaming **MED-LOC**
'those traditional Aboriginal bushmen there' (Ngi30)

Since post-head modifiers in general tend to be fewer, no examples are available to show that the post-head adverbial slot is recursive, like its pre-head counterpart (9.88, 9.92).

9.92 *kurlila-ngu yala-ngu=na jurr-ka-ninya*
south-ABL DIST-ABL=3SG.S descend-AUX-NARPST

kaniny-parrakurna warlparni-ngarra *Martuwarra-karti*
below-wards **to.here-about** Fitzroy.River-ALL
'From way out in the south, they came down around here to the river.' (1D5)

As with determiners, there is an internal order when multiple spatial adverbials occur. Although no example is available which shows all types of co-occurring, the order of multiple fillers of this slot seems to be:

9.93 *directionals ^ relative positions ^ demonstratives*

The term 'directionals' in (9.93) refers to both cardinal directions and points on a vertical scale, up top/down below. The two never co-occur in the same NP, but either can occur with other adverbial subtypes: demonstratives in (9.88-89) follow a vertical locator and cardinal directional respectively as does the first NP in (9.92) which also shows an STL of

relative position following a vertical positional in the second NP (*kaninyparrakurna warlparningarra* 'to down around here').

9.4 Complex noun phrases

In addition to simple or compound lexemes, each slot in the NP can also be filled by conjoined or embedded NPs. This can account for apparent aberrations in word order predicted by Figure 9.1.

9.4.1 Coordination

NP coordination is generally achieved with the conjunctive suffix *-pa* (§4.7). This is usually attached to each coordinand, after inflection (9.94) but equally may be omitted from one (9.95, 9.97) or more, resulting in asyndetic coordination (9.96). Asyndesis is more common in dislocated NPs such as afterthoughts or preposed topics (§9.6).

9.94 *wajarri=ngarniny wayitpal-tu ngunyi-ma-narrima*
NEG=1PL.EX.O whitefella(E)-ERG send-AUX-IPFVPSTIRR

[[wulu-karti]-pa [kampaja-karti]-pa]
[[father-ALL]-and [mother-ALL]-and]
'The whitefella wouldn't let us go to our father and mother.' (1M50alt)

9.95 *mangarri, wira-nyarrinya=pala [[kampaja-ju]-pa [wulu-ngku]]*
veg.food grind-NARPST=3DU.S [[mother-ERG]-and [father-ERG]]
'Mother and father ground up the food.' (1P13)

9.96 *[[paparla] [wulu]]=pala kapa-na yala-ngu*
[[elder.brother] [father]]=3DU.S sit-PST DIST-ABL
'Brother and father came from out there and stayed.' (2J83)

Each coordinand is case-concordant and can contain its own modifiers.

9.97 *ngalyarra-ju=yarra ma-na [[kujarra kujarra wipirtarti kuwi]-pa*
s/he&I-ERG=1DU.EX.S get-PST [[two two small.PL meat]-and

[kujarra purlka kuwi]]
[two big meat]]
'We two got four small prey and two big prey.' (MMsen)

Generally, each coordinand contributes to the agreement features of the BP which registers the argument as the cumulative total number of referents. For example, in (9.95-96), two coordinands each with singular referents are registered by the third person dual clitic. However, it is also possible to register the coordinands as separate entities, or indeed, the entire coordination as a single NP. Despite the non-singular reference of each coordinand in (9.97), the 3SG.O clitic Ø registers the object as a single NP. A similar sentence (9.22) uses *=palany* 3DU.O, to register each coordinand as a separate entity.

In most examples, conjoined NPs occupy the entity slot and can share modifiers such as a determiner. These too can reflect the singularity of the complex NP they modify, as in (9.98) where the possessive determiner is unspecified for number, or they can reflect the total number of referents as in (9.99), where the determiner indexes the duality of the referents.

9.98 *[[wulu-pa kampaja-pa kirlaki-pa] ngijakura]*
[[father-and mother-and father's.father-and] I.GEN]

Mangarla-artu mininy kampaja-pa
Mangarla-COM language mother-and
'My father, paternal grandfather and mother spoke Mangarla.' (2D36)

9.99 *wani-nya=pala [[wulu]-pa [kampaja] ngijakura-arra] Mayarrurta*
be-PST=3DU.S [[father]-and [mother] I.GEN-DU] placename
'My mother and father stayed at Myroodah Station.' (1P1)

Most modifier slots containing more than one element generally place them in simple juxtaposition. However, numbers over three are expressed by complex terms involving conjunction or disjunction. The former may (9.100) or may not (9.97) contain the overt conjunction *-pa*.

9.100 *gudyara ba wandyu dyanduyardi in mana*
[[kujarra-pa wanyju] jarntu-yarti]=iny ma-na
[[two-and one] relation-PL]=3PL.O get-PST
'He picked a few friends.' (McK:RT)

While the particle *kamurra* 'uncertain' can be used with a disjunctive interpretation in linked clauses (§13.1.1) or nominals in afterthoughts (§9.6), no marker of nominal disjunction has revealed itself in the data. Unmarked disjunction only has been attested in the QUANTIFIER slot (9.101) of an NP.

9.101 *pantu kujarra, wanyju ngarrungu*
MED two one person
'that one or two people' (FKNgi106)

Conjoined NPs have not been found in adverbial, qualifier, or determiner functions, which are recursive. It is, however, conceivable that a phrase might permit conjoined possessive determiners (*[kampaja-kura-pa wulu-kura] kunyarr* 'mother's and father's dog'/ *[kampaja-pa wulu]-kura kunyarr* 'mother and father's dog'). Similarly, clauses such as (9.102), which show conjoined attributive nominals functioning as entity, could potentially occur as qualifiers with a substantive noun in the same NP (*i.e. warnku wipirti-pa purlka* 'big and small stones'). Further research is required to verify this.

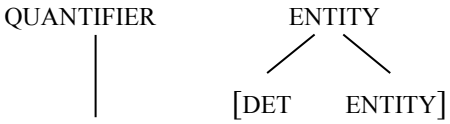
9.102 *wangu gandira wibidi purlga*
warnku kanti-rra wipirti purlka
stone hit-IMP small big
'Break the stone into little and small pieces (*sic.*).' (McK:89)
(*lit*. Break the stone into small ones and big ones)

9.4.2 Embedded NPs

Embedded NPs are formed when multiple elements filling one functional slot conform to basic NP structure. Embedded NPs occur in all functions except the outer DETERMINER and ADVERBIAL slots: entity (9.103-104), qualifier (9.105) and quantifier (9.106-107). Evidence that these are not separate apposed NPs includes the prosody of the larger NP constituents (in a single intonation unit without pauses) and the placement of the BP complex after it

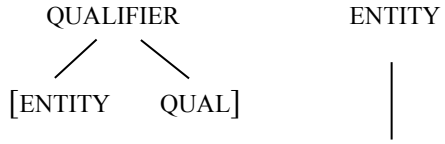
(9.104). Embedded NPs which fill the ENTITY slot always involve a determiner, usually a demonstrative, giving this function more freedom within the NP. When placed in an embedded NP, they do not occupy other DETERMINER slots.

9.103 *[[ngarrungu pantu] Mangarlartu kurlilangu] Yingkilij wajarrartu*
person MED Mangarla.COM south.ABL English NEG.COM
'Those people from the south who spoke Mangarla didn't know any English.'
(Ngi7)



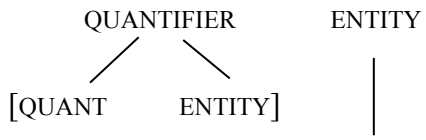
9.104 *[wakaj-kuyarra [nyaltu ngarrungu]] nga=ni=iny pinya*
complete-every PROX person CAT=3PL.S=3PL.O hit.PST
'They killed the whole lot of those people.' (FKNgi101)

In the next example, an embedded NP consisting of an entity and qualifier fills the QUALIFIER slot.

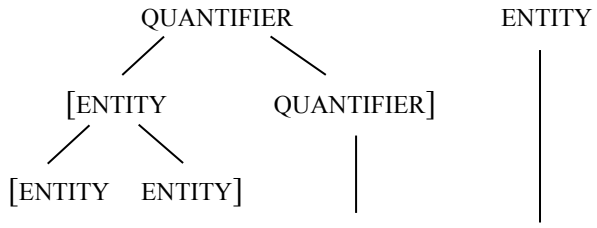


9.105 *[parrangka purlkangka] ngurra~ngurra*
sun.LOC big.LOC camp~RDP
'a camp in the heat of the day/ dinnertime camp'.

Complex quantifiers generally occur as conjunctions or disjunctions (§9.4.1) but some involving multiples of five occur as embedded NPs. In (9.107) multiple NPs are embedded; the quantifier *kujarrangal* has scope over the conjoined NPs *jinarra kurraparra* and together they act as a single quantifier.

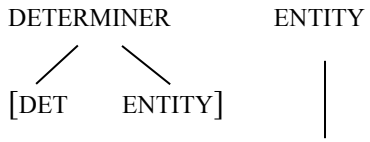


9.106 *gudyara-gadi guraba mininyardi*
[kujarra-karti kurrapa] mininy-yarti
two-ALL hand language-PL
'ten words' (McK:RT)



9.107 *dyinara gurabara gudyarangal barardi*
[[jina-rra kurrapa-rra] kujarra-ngal] parra-arti
foot-DU hand-DU two-times sun-PL
'forty days' (McK:RT)
(*lit*. two feet and two hands by two times, days)

Embedded NPs in determiner slots are not found in the corpora. However, embedded determiners may be possible in expressions such as (9.108).



9.108 *[ngijakura wulu]-kura jinarl*
I.GEN father-GEN spear
'my father's spear'

9.5 Discontinuous NPs

Nominal expressions can also be distributed discontinuously throughout the clause. These occur within one intonation contour, contribute information about a single referent, bear the same inflectional markings but they are separated by other constituents. Discontinuous NPs comprise fewer than 10% of multi-word nominal expressions and it is unusual to have

more than two separate single-referent NPs within the one clause as in (9.109). These low figures are consistent with findings for other Australian languages (Schultze-Berndt and Simard 2012:1032).

9.109 ***winykuma****=ngarni* ***wanyju*** *ka-ngarrinya* ***kuwi***
possum=1PL.EX.S **one** carry-NARPST **meat**
'We would carry a possum, which was one in number, as meat.' (2J7)
'We would carry one possum meat.'

9.110 ***panartu****=ngarni-ya muku-narrinya* ***winykuma***
MED=1PL.EX.S-EP club.AUX-NARPST **possum**
'We would kill that one which was a possum.' (2J8)
'We would kill that possum.'

Semantically, discontinuous nominal expressions have two interpretations available to them: the 'merged'/'restrictive' reading of contiguous nominals in a modifier-head structure as per the second translation of (9.109-110), or an 'unmerged'/'appositive' reading (Hale 1983, Simpson 1991:257-262, Bittner and Hale 1995) where each NP is seen as independent, often translated as a non-restrictive relative clause or appositive element, as shown in the first translations above or as a secondary predicate (9.111).

9.111 ***ngayu-ngku****=rna=ja muku-narrinya* ***wipirti-marta-ju*** *kuwi*
I-ERG=1SG.S=1SG.OBL club.AUX-NARPST **small-CPR-ERG** meat
'I killed meat for myself, when I was only little.' (1J130)

Schultze-Berndt and Simard (2012) find that pragmatics plays an important role in motivating discontinuous NPs with a 'merged' reading in Jaminjung. There, a contrastive argument or an element with sentence focus occupies the highly focal preverbal position while another which is more accessible occurs later in the clause.

This can be seen in (9.109), where the preverbal noun *winykuma* identifies a subset of the generic term *kuwi* expressed clause-finally. *Winykuma* is placed in contrast to other subsets named in the sentences which immediately precede. Similarly, the 'I' of (9.111) is selected for special attention from the 'we' of the previous discourse. Prominence is accorded in this way to elements which may be new (9.113), topical (9.110), or otherwise noteworthy, not merely contrastive (*cf.* Mithun 1987).

9.112 *nyaltu=rna=la parnany ngurrja-narri*
PROX=1SG.S=3SG.OBL old.woman talk.about-IPFV
'I'm telling it to this old woman.' (HTS35)

9.113 *kujarra=palany waji-ma-nu wangu-yarra*
two=3DU.O keep-AUX-INF wife-DU
'He had <u>two</u> wives.' (1P8)

Discontinuous NPs have the same word order tendencies as contiguously expressed NPs (§9.2.4). In most, a clause-initial demonstrative that hosts the BP complex is expanded on later in the clause, as in (9.110, 9.112). These are often anaphoric in reference and used as tracking devices (§5.3.6.3). Often, the distance between elements is small and they may be separated by nothing more than the BP complex, also referred to as 'AUX straddling' (Laughren 2000). In §6.4.1, I examine the role of the BP complex as a transitional element, separating prominent information from that which is less prominent (after Simpson 2007).

9.6 Extraposed NPs

Some nominal expressions which appear to be discontinuous NPs are in fact extraposed, occurring outside the boundaries of the clause, often offset by a pause (indicated below by a comma) and in a separate intonation contour. However, they are linked functionally and semantically at some level to a main clause participant and function as focal elements.

Left-dislocated NPs are also considered outside the clause for placement of the BP complex. They are sometimes referred to as 'hanging topics', but as well as reintroducing those already established (9.114-115), these 'peripheral phrases' (Gaby 2006:299) also introduce new main clause participants (9.116). In (9.115), the speaker preposes a demonstrative to draw attention to a contrast she is making between two brothers.

9.114 *wipirti-ju kartu-ngku, Nyikina=na ma-ninya*
small-ERG child-ERG Nyikina=3SG.S get-NARPST
'The little kids, they learned Nyikina.' (1D21)

9.115 *nyaltu, Johnny Watson purlka-marta*
PROX personal.name big-CPR
'This one, Johnny Watson was older.' (1P52)

9.116 *pantarti ngarrungarti, nyuntu-ngku=n=inya yaji-ngarrinya*
MED.PL person.PL you.SG-ERG=2SG.S=3PL.OBL wait-NARPST
'Those people, you were waiting for them.' (FKsen23)

In 'afterthought' constructions, sometimes referred to as 'postscripts', one or more right-dislocated NPs seek to give prominence to and explicate a previous referent, giving synonyms or providing supplementary information.

9.117 *jawu-na=na panara warrampa purlka, wajarri wupa*
swim-PST=3SG.S MED flood big NEG small
'He swam through that flood which was large, not a small one.' (Ngi85)

9.118 *yulpurru nga=ni pinya pantu kartiya, wayitpal, kayaru*
early CAT=3PL.S hit.PST MED whitefella whitefella(E) whitefella
'Earlier on they killed that whitefella, a caucasian, a white guy. (FKNgi51)

Afterthoughts can clarify or correct a reference. The composition of a group referred to earlier may be described or entities listed.

9.119 *kujarra wipirti nga=ni=yarrany ka-ngarrinya,*
two small CAT=3PL.S=1DU.EX.O carry-NARPST

marrkartu ngijakura ngayu
young.sibling I.GEN I
'They carried us two little ones, my little sister and me.' (1J4)

9.120 *panaru=pala ma-nu-ng-karra-ka-nya parnany-kuyarra kujarra-ju,*
MED.ABL=3DU.S get-INF-EP-MAN-AUX-PST old.woman-DU two-ERG

Nakarra-ju-pa nganiji-ju, Nyaparru-ju
skin.name-ERG-and whatsaname-ERG skin.name-ERG
'Those two old women got it from there and carried on, Nakarra and whatsaname, Nyapurru.' (Nya11)

9.121 *kujarra mininy pantu, yulu, mulnyi*
two language MED ground soil
'There are two words for that: *yulu* and *mulnyi*.' (2D32)

As non-essential grammatical elements (*i.e.* without them, the clause remains grammatical), inflectional markers are commonly omitted from NPs adjoined in this way, as their reference and function is generally clear from the BP complex or an NP in the main clause. In (9.122) ergative marking is omitted and in (9.123) the final placename lacks the allative.

9.122 *ka-nya=ni=nya, kampaja wulu ngunurtu*
bring-PST=3PL.S=1SG.O mother father older.sister
'They brought me, mother, father and older sister.' (1R2)

9.123 *pantangka=ngarni ya-na nganiji-karti, Niyirramal-karti,*
after.that=1PL.EX.S go-PST whatsaname-ALL placename-ALL

Kurnturlungarn
placename
'After that, we went to whatsaname, towards Nerrima, Kurnturlungarn.'
(1P26)

In (9.124) the particle *kamurra* 'uncertain' expresses the speaker's uncertainty of the assertion and the pronoun *nyuntu* is added as an afterthought to identify a potential alternative participant, effectively expressing nominal disjunction.

9.124 *ngayu=ni=ja yaji-ngarrinya kamurra, nyuntu*
I=3PL.S=1SG.OBL wait-NARPST uncertain you.SG
'They are waiting for me maybe, or you.' (FKsen19)

10 Superordinate constructions and possession

10.1 Introduction

Most Australian languages allow two (or more) referential nominals to appear in the same syntactic function and, according to prosodic, clitic placement and agreement critieria outlined in §9.2, these constitute a single NP. These may be: two nouns (10.1a-b); a non-possessive personal pronoun and noun (10.1c-e); or even two personal pronouns (10.1f), each contributing semantically to a jointly indexed reference.

10.1	a) *paralu kuwi*	[catfish meat]	'catfish'
	b) *kunykuny walu*	[brains forehead]	'mind'
	c) *nyuntu purrma*	[you.SG stomach]	'your will'
	d) *ngayu kartu*	[I child]	'I as a child'
	e) *ngalyarra Kinyakarrartarra*	[s/he&I name-DU]	'me and Kinya'
	f) *yarlpurru nganarni*	[lawmate we.all.EX]	'my lawmates and I'

Blake (1987:96) refers to these as 'superordinate constructions', which consist of a hypernym referring to the set of all possible referents and a hyponym which specifies a subset of the superordinate term. In Mangarla, the order in which the subset and superset are expressed varies, although each type exhibits its own preference.

This chapter describes three types of superordinate construction exemplified in (10.1): the classifying (generic-specific) construction (10.1a), the inalienable possession (part-whole) construction (10.1b-c), and the inclusory (Singer 2001) construction (10.1e-f). Part-whole constructions are described within the broader context of other expressions of possession (§10.4). Constructions with adnominal personal pronouns with non-possessive, non-inclusory meanings, such as (10.1d), are examined in §9.3.4.2 and are thus excluded from the current discussion.

Researchers are divided over the syntactic nature of these constructions. Generic-specific and part-whole constructions have variously been analysed as modifier-head constructions, double-headed NPs, or complex NPs. The former is more likely to be treated as a modifier-head relationship (Tsunoda 1981, Goddard 1985, McGregor 1990, Dench 1995, Dixon 2002a), although there is little agreement as to which element is the head and which the modifier because as Dench (1995:195) puts it, "there is a degree of

indeterminacy in the analysis". The NP in (10.1a) could variously be translated as 'meat of the catfish kind', 'catfish which is meat' or even 'catfish meat'. This difficulty is noted in Dixon (2002a:454-455) where the two alternatives (generic as head/specific as head) are described as separate systems. Many researchers solve the problem by treating the two as apposed nominal words functioning as joint heads (Evans 1995:235, Gaby 2006:283). Evans (1995:249) also treats part-whole and inclusory constructions in this way, while others argue that they involve separate NPs in a hierarchical relationship, formally linked to a single function by referential case (Gaby 2006:303, 325, Tsunoda 1981:202). The primary reason for this approach is the frequent mismatch of person and number between the two nominals. When this occurs, the superset controls agreement and is therefore seen as the head of the construction.

The similarities between asyndetic coordination and some or all of these constructions have also been observed. Haspelmath (2004:25-26), among others, considers inclusory constructions as a type of reduced coordination, while Sadler and Nordlinger (2010) use LFG to show how the juxtaposition of fully or partially coreferential nominals in all of these constructions are structurally identical to coordinations, but that differences in semantics and the way agreement features of the combined set relate to those of the individual members can be explained by the application of 'alternative sets of annotations (specifying functional equations and meaning constructions)' (p. 443). In coordination, the features of each element are resolved in the whole (*i.e.* both elements are contributing subsets) while in generic-specific and some other types of apposition they are shared (*i.e.* both are identical to those of the whole set). In a third type, found in inclusory constructions, members contribute differently: one shares features with the combined set while other(s) contribute to it as subsets. This is an attractive analysis which eliminates the need to characterise one or other element as the head of the construction.

As agreement mismatches occur only when one element is a pronoun, another alternative is provided by the pronoun-determiner head hypothesis (*e.g.* Blake 2001, Hale 1973:317), which asserts that as head of the NP/DP, the pronoun-determiner subclass is the repository of grammatical features such as person and number, and other nominals are dependents. If an NP lacks a free pronoun or determiner, proponents suggest that the BP registers a potential but unexpressed (abstract) pronoun-determiner as head of the phrase.

Both analyses account for the known characteristics of these constructions in Mangarla and further research might explore prosodic and pragmatic details in their expression.

Frequently, the two nominals are expressed discontinuously, linked to the same function by case or one is left unexpressed. In constructions where agreement features are mismatched, the registration of the superset in the BP complex means it can be elided without loss of information. Discontinuity and ellipsis allow unmerged interpretations (§9.6) and Mangarla speakers prefer these forms of expression.

10.2 Generic-specific constructions

Generic-specific or classifying constructions consist of two juxtaposed nominals (or NPs), of which one denotes a broad class of possible referents and another identifies a specific type. Generic terms commonly relate to categories of human social classification, the physical nature of an entity or the type of human interaction with it. While Mangarla speakers clearly prefer to place the specific word before the generic, unusual among related languages, examples below show that this varies.

This construction is not used extensively in Mangarla, although some of the regionally common superordinate terms persist and may provide evidence that it was more widespread in the past. The most frequently used generics are *kuwi* 'meat, game, prey' denoting animals used as flesh food, and *panjurn* 'wood' for trees and utensils (not always made of wood in today's world) also translated as 'thing'.[34] Generic terms are underlined in the following examples.

- **material** - *nima* <u>*panjurn*</u> [stick <u>wood</u>] 'stick', *turlu* <u>*panjurn*</u> [bowl.coolamon <u>wood</u>] 'bowl, cup', *lintij* <u>*warnku*</u> [flaked.quartz <u>stone</u>], <u>*warnku*</u> *jungari* [<u>stone</u> pestle] 'top grinding stone'
- **flesh/non-flesh food types** - *paralu* <u>*kuwi*</u> 'catfish', <u>*kuwi*</u> *wirlka* 'lizard sp.', <u>*mayi*</u> *karrjartu* 'edible seed type', *wirrpan* <u>*mangarri*</u> 'bush onion'[35]
- **social status** - *manga* <u>*kartu*</u> [girl <u>child</u>], *linyju* <u>*jipi*</u> [police <u>initiated.man</u>]

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[34] The Karajarri word *paka* is also used in McKelson's data.

[35] Both *mangarri* and *mayi* 'vegetable food' are used and include insects, which are generally ground up like seeds *etc*. The term *kuwi* refers to live animals, potential food, as well as those prepared as meals.

- **language, race or culture** - *Mangarla mininy* 'Mangarla language', *Nyikina ngarrungu* 'Nyikina people', *limpa wayitpal* [police/bitter whitefella] 'white policeman', *ngarrungu kukurl-mangari* [person bushman-Dreaming] 'traditional Aboriginal bushmen'
- **residential sites** combine with commonly associated characteristics or uses: *ngurra purnkurr* [camp shade] 'favoured campsite', *ngurra purlkupurlku* [camp bedclothes] 'sleeping area', *mayaru Lungkayi* [building placename] 'Luluigui Station', *mayaru jaji* [building church(E)] 'church'
- **geographical features** which characterise places are often paired with placenames: *ngapa Jarrmangunany* [water placename] 'Jarrmangunany Spring', *Jirrkali ngapa* [placename water] 'Geegully Creek', *Mayarrurta yulu* [placename ground] 'Myroodah station', *yulu Marntarninyan* [ground placename(E)] 'Mt. Anderson Station', *palma Jirrkali* [creek placename] 'Geegully Creek'
- ***yini* 'name'** combines with proper names of people and places: *Nyimpikarrartu yini* [personal.name name], *yini Langaljali* 'Langaljali Station'. A common strategy is to add another nominal (tentatively treated here as an inalienable possessor) such as *panjurn* 'wood', *mayaru* 'building' or *mulnyi* 'soil, country' to construct an embedded construction translating as 'an X called Y': *mulnyi yini Langaljali* [soil name placename], *yini mulnyi Ngiyingiyi* [name soil placename], *yini mayaru Lungkayi* [name building placename], *panjurn yini lirrirnkirn* [wood name acacia sp.], *ngarrungu yini Ngujpan* Gunner [person name personal.name].

Generic-specific pairs are not fixed expressions. One generic term can be individuated by any semantically compatible specific term (*manparri/kilu/paarni/paralu kuwi* 'animal.sp./mouse/perentie(K)/catfish meat', *jurnpu/marlpurlu/turlu/nima/jawarl panjurn* 'dish/baby.carrier/bowl.coolamon/stick/spinifex wood) just as one specific term can be paired with multiple generic terms, although such pairs are more limited (*Mangarla mininy/ngarrungu* 'Mangarla language/person').

Isolated examples such as *kurturtu kurnak* [stomach turn] 'feelings of repentance', *minjurr~minjurr kuwi* [cooking-odour meat] 'smell of meat cooking'[36] may indicate that the list given above is not exhaustive and that perhaps as a productive semantic strategy in the language, any general term might pair with an appropriate specific term: *e.g.* 'feelings of revenge/inadequacy/pleasure *etc*.' or 'veg.food cooking odour' or 'wood smoke odour'. Other novel pairings are not always easy to categorise as generic-specific, or to decide which term is which (*e.g. walu marru* [forehead head] 'head', *mil ngali* [eye tears] 'tears'). They often involve appositions of commonly associated entities, many denoting residential sites and geographical features: *ngurra mayaru* [camp home] 'a building where people live/a camping place where there are buildings', *ngurra mulnyi* [camp soil] 'location where people camp/a homeland', *ngapa mayaru* [water building] 'a house by the water/a waterhole where there is a house'.

The semantic links between the two elements in this construction provide them with syntactic and semantic flexibility. As Dench (1995:196) says, "It is assumed here that NPs are ambiguous. The grammar generates a range of alternative structures for which different semantic interpretations are possible". This ambiguity is found in other types of NP, particularly in oblique possessive constructions (§10.4.4).

Since both elements always have a third person referent, registration in the BP complex is consistent with both. As for other NP elements, inflectional marking is sometimes omitted, if present elsewhere in the NP. However, this only affects the generic term and the specific always carries the expected inflectional markers (10.2-3).

10.2 *kujarra kurrpiji-yarra panjurn*
two white.gum.tree-DU wood
'two whitegum trees' (G144)

10.3 *ngijakura-ja ngurra-ngka mulnyi*
I.GEN-LOC camp-LOC soil
'in my homeland' (FK3)

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[36] As noted in §10.4.3, there is some overlap between part-whole and classifying constructions. Semantically, this example may well be analysed as a part-whole construction rather than a classifying construction, *i.e.* odour is a part of meat.

10.4 *kuwi-ngku wirlka-ngku*
meat-ERG lizard.sp-ERG
'lizard meat (grew me up)' (2J2)

In Mangarla, the terms 'generic' and 'specific' do not have meaning outside this construction, which is not very common. No special nominal subtypes are identified since the number of commonly employed generic terms is relatively small, and both terms can function without the other as head of the NP. The pairings act like some English compounds such as 'shortcrust (pastry)', 'camp (site)', 'garden (bed)' or complex names like 'The Fitzroy (River)' or 'Jacaranda (tree)', where each element independently indexes a single referent and occurs within a single intonational phrase when contiguous.

When one is used without the other, it is typically the generic and the specific tends to be used only when pragmatically significant. In (10.5), the speaker describes an illustration, introducing the referent with a generic-specific construction. Later clauses use one term only. The generic is repeated to establish the context and the specific term used as the topic of the immediate discourse. A little later, once the referent is established, the generic term is used alone (10.5b).

10.5 *a) pantu=yinyala paja-narri panartu kilu kuwi, kuwi nyaltu,*
MED=3PL.OBL2 bite-IPFV MED mouse meat meat PROX

kilu=na paja-narri, pirra-ngu=na kilu, pirra-martaji
mouse=3SG.S bite-IPFV bush-ABL=3SG.S mouse bush-ASS
'In that one, she is catching that mouse meat for them. This is meat. She is biting the mouse. The mouse is from the bush, a bush-dweller. (PSan79-81)

b) ma-nku-rtiny nga=na panartu kuwi
get-FUT=EXPECT CAT=3SG.S MED meat
'He is about to get that prey.' (PSan88)

Speakers also separate each element with other material (10.6-7). Either of the two terms can be separately modified (10.8-9) and the specific term can be a coordination (10.10), indicating that the two elements constitute separate NPs.

10.6 *mangarri=ngarni-ya jurrpurl~jurrpurl*
veg.food=1EX.S-EP damper~RDP
'We (made) damper'. (2J130)

10.7 *pantu Mangarla janyja mininy*
MED Mangarla today language
'that Mangarla language of today' (1D60)

10.8 *kuwi [purlka wirlka]*
meat [big lizard.sp.]
'a big lizard' (2J2)

10.9 *Nyikina [nganarnikura mininy]*
Nyikina [we.all.EX.GEN language]
'our Nyikina language' (1D41)

10.10 *kuwi [paarni-pa karnanganyja]*
meat perentie(K)-and emu
'goanna and emu meat' (1P15)

10.3 Inclusory constructions

The inclusive or inclusory (Singer 2001) construction (IC) consists 'of a nonsingular pronominal referring to a group and another element that picks out a member of that group' (p. 9). At least one member of the pronominal superset is not referred to by the subset term(s) which contain names or non-first person referents that are subsumed into the superset that indexes all members. ICs may be implicit, having no special marking, or explicit, where additional marking of the subset signals inclusion. Singer (2001) identifies three types of implicit IC: type 1 contains a free pronoun expressing the superset and a nominal subset while type 2 omits the free pronoun but employs a BP to refer to the superset; type 3 encodes the superset as both a free pronoun and a BP. In Mangarla, only type 2 is attested. In (10.11-12), the first person plural pronominal clitic subsumes the referents of the NPs. In (10.12), the subset occurs as an asyndetic coordination. One explanation for the mismatch between the Mangarla words and the translation in this example is the researcher's identification of the participants using their local names,

rather than giving a literal translation. The speaker's *yarlpurru* is assumed to refer to a man named Dyamai and Andy is the whitefella name of Nardarda.

10.11 *nga=ngarni yarlpurru jipi~jipi-yarri nyalara-ja Martuwarra-ja*
CAT=1PLEX.S lawmate man~RDP-INCH.PRES PROX-LOC Fitzroy.River-LOC
'My lawmates and I become men here on the river.' (1R42)

10.12 *yalburu Nardarda ṉani murgun dyarinya*
yarlpurru Nartarta=ngarni murrkun-jarri-nya
lawmate name=1PL.EX.S three-INCH-PST
'We were three together - myself, Dyamai and Andy.' (McK:PS19)

A reciprocal inclusory construction is given in (10.13) whereby each of the two participants is identified in separate singular NPs. The clause involves two brothers performing a reciprocal act, shown by the BPs. One is identified in the extraposed subject NP, *paningku* and the other in the object *paparla*; each is subsumed by the dual BPs.

10.13 *pantu=pala=rnangka piri-narrinya paparla, pani-ngku*
MED=3DU.S=RR.OBL look.for-NARPST elder.brother s/he-ERG
'He and my brother were looking for each other.' (2J85)

The potential for semantic ambiguity with 'personal determiner' (§9.3.4.2) constructions is flagged by Singer (2001:82). These are common in Mangarla and resemble ICs, particularly when collective terms are used (10.15).

10.14 *kartiyarti=ngarni juju-l parti-nya*
child.PL=1PL.EX.S song-EP go-PST
'We went to a ceremony, when we were children.' (1R56)
?'We, including the children, went to a ceremony.'

10.15 *wulala ngarrungu=ngarni ya-narrinya*
a.lot person=1PL.EX.S go-NARPST
'We were many people who went.' (1P43)
?'We and many people went.'

However, pragmatics informs the interpretation of most of these which are translated as 'alternative incarnations' rather than ICs from which they can also be distinguished on

the basis that the relationship between the two elements is not one of proper inclusion, *i.e.* the 'subset' is not smaller than the superset. Unlike ICs, the pronouns can also have singular and third person referents (§9.3.4.2) which are dispreferred as supersets in ICs (Singer 2001:79).

'Explicit' ICs, which involve additional markers on the subset (Singer 2001), also occur in Mangarla. In (10.16) the dual marker is suffixed to the personal name which indexes the subset indicating that it is one of a pair.[37] The collective suffix *-ngurru* 'mob' (10.17) may have a similar function, but is not commonly heard.

10.16 *jarni-ngka=ni wanti, ngalyarra Kinyakarrartu-**arra***
where-LOC=3PL.S be.PRES s/he&I personal.name-**DU**
'"Where are they?" Patsy and I (cried out).' (1M36-37)

10.17 *Mijipa-**ngurru**-ju nga=ni=na yinya-angka-pa*
personal.name-**mob**-ERG CAT=3PL.S=2SG.O give.PST-SRC-and

kakurtu pantu mininy
finish MED language
'Mijipa and her mob having given it to you, that story's done.' (2D64)

ICs rarely occur in the Mangarla corpora. Speakers generally prefer to omit nominal expressions and rely only on the BP to identify participants, or employ other methods of showing accompaniment, such as coordination (§9.4.1). The use of free pronouns in (10.18) allows BPs to be omitted (§6.2.1).

10.18 *ngaliyarra-pa paniyarti ya-na juju-karti*
you&I-and they go-PST song-ALL
'We two and they went to the ceremony.' (FKsen61)

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[37] The dual suffix (or a form homophonous with it) is also found on other nominals to indicate plurality where it is translated as 'all' or 'both' according to the context (§4.6.2.1). Supporting this notion is the fact that the form *nganarni-yarra* [we.all.EX-DU] has been heard more than once, with reference to people in a social relationship with the speaker, who could be seen as having two allegiances, possibly translating as 'all of us two groups' (see Appendix 1, Text 1:38).

Another alternative is to employ adjunct NPs to indicate non-core participants (10.19) or manner (10.20). The comitative is only used in this way and not in ICs. The BP in (10.19) registers only the third person dual subject and not the first person adjunct.

10.19 *pantarra=pala purta ngayu-yartu* Derby-*karti*
MED.DU=3DU.S come.FUT I-COM placename(E)-ALL
'Those two will come with me to Derby.' (A2)

10.20 *gañari in gulu nga*
ka-ngarri=iny kulu-ngka
carry-IPFV=3PL.O together-LOC
'He took them with him.' (McK:RT)

A subset can also be expressed in a subordinate clause.

10.21 *jiya-nu nyuntu ngaliyarra kulu-ngka*
follow-INF you.SG you&I together-LOC
'(Me) following you, we'll go together.' (HTS56)

10.4 Possession

10.4.1 Introduction

Mangarla expresses possession in several ways, primarily with the genitive suffix (§4.3.8) but also with the comitative (10.22 - §4.3.9) or special kinship suffixes (10.23 - §4.6.6). Certain verbs can also associate a possessor with a possessum (10.24).

10.22 *nyuntu=n ngulyku-yartu*
you.SG=2SG.S beard-COM
You have a beard. (3Sen54)

10.23 *wulu-nyanu=yinyala kakarra-ngu-walu*
father-POSSKIN=3PL.OBL2 east-ABL-face
'Their father is looking across to them from the east.' (PSh53)

10.24 *wulala mininy nga=n waji-ma-n*
a.lot language CAT=2SG.S keep-AUX-PRES
'You possess a lot of language.' (G90)

The genitive marker is the primary method of expressing relationships of possession and is used in three different types of possessive NP: alienable (§10.4.2), inalienable (§10.4.3), where the genitive is optional, and oblique possession (following Meakins and Nordlinger 2014 - §10.4.4). In each type, the order of the two elements, possessor and possessum, can vary and they may be expressed discontinuously. Two of the three types are external possession constructions, in which the possessor is registered in the BP complex as an argument of the verb. This generally results in a misalignment of semantic and syntactic argument relations, with the possessor being a semantic dependent of the possessum but at the same time, a syntactic argument of the verb (Deal 2017:2). This does not occur in regular alienable possession, where the features of the possessum, as the head of the NP, are registered as an argument of the verb and the possessor is an unregistered dependent. Table 10.1 compares the features of the three possessive constructions which will be described in detail in subsequent sections.

In inalienable possession (part-whole) constructions, the possessor controls person and number agreement, as a verbal argument which is directly affected by the action of the verb, although perhaps only one part of the whole experiences the full entailment of the verb. The oblique possession construction (Meakins and Nordlinger 2014, also 'possessor dissension' Meakins and Nordlinger 2017) can be optionally used with alienable or inalienable possessions.

Table 10.1 Features of possessive NPs in Mangarla

feature	**alienable**	**alienable oblique**	**inalienable**	**inalienable oblique**
genitive case on possessor	obligatory	obligatory	optional	optional
possessor registration	no	OBL or OBL2	S, O or OBL	(S *and*) OBL or OBL2
possessive NP registration	S, O or OBL	S	no	no
possessum ellipsis	optional	optional	no	no
possessor ellipsis	no	optional	optional	optional
discontinuous expression	yes	yes	yes	yes

Oblique possessive constructions highlight the importance of an animate possessor in the possessive relationship. Registered as an oblique argument, regardless of the syntactic function of the possessive NP in which it is embedded, the possessor is like an external participant in the event and not directly affected by the activity of the verb.

10.4.2 Alienable possession

Alienable possession is expressed by an NP containing a possessum and genitive-marked possessor which may be nominal (10.25) or pronominal (10.26-30). Alienable possession is used to show human relationships (10.28) as well as possession of entities denoted by general nouns.

10.25 *wayitpal-kura ruwut nga=na wani-nyarrinya*
whitefella(E)-GEN road(E) CAT=3SG.S be-NARPST
'The road belonged to the whitefella.'/ (1R18)
'It was a whitefella's road.'

10.26 *wajarri, kurna=n=ngarni-ya nyaltu kuwi nganarni-kura,*
NEG ingest-PRES=1PL.EX.S-EP PROX meat we.all.EX-GEN

wirlka-pa paarni-pa
sand.goanna-and perentie(K)-and
'"No (we can't eat your food)! We eat our own meat, goanna and perentie."' (1M66)

The possessive NP is registered in the BP complex according to the function it performs. As a third person singular object in (10.26), it is registered by Ø, but a dual subject possessum is registered in (10.28), and a third person singular locative complement as an oblique in (10.27). The possessive NP in (10.29) is an unregistered locative adjunct. The genitive-marked modifier generally agrees with its head in number and case. However, as shown in §9.2.3 inflection may only be marked once in the NP on either element.

10.27 *ñiñara gana=na=la nyundu gura dya minin dya*
ningarra-ka-na=rna=la nyuntu-kura-ja mininy-ja
true-AUX-PST=1SG.S=3SG.OBL you.SG-GEN-LOC language-LOC
'I believe your word.' (McK:157)

10.28 *purlka-ka-na=na=nya=pala kaka-rra-ju panta-rra-ju ngijakura-rra-ju*
big-AUX-PST=3=1SG.O=3DU.S uncle-DU-ERG MED-DU-ERG I.GEN-DU-ERG
'My two uncles raised me.' (2J27)

10.29 *wakaj-kuyarra mininy yala-ngka mil-ka-ngku=rtiny*
complete-all language DIST-LOC eye-AUX-FUT=EXPECT

nyuntu-kura-ja yulu-ngka
you.SG-GEN-LOC ground-LOC
'Then you will read all the stories far away at your place.' (1D109)

Most possessive NPs express both elements contiguously and examples above show that the order is variable. However, like other NPs, the two elements can be separated, albeit infrequently.

10.30 *malarri ka-narrinya=na nganarni-kura*
loaf do-NARPST=3SG.S we.all.EX-GEN
'She made our bread.' (HTK38)

As with other erstwhile modifiers, a possessor can be the head of an NP when the elided possessum is understood from context (see §9.3.1).

10.31 *kurna-nku=rtiny nga=na pani-kura*
ingest-FUT=EXPECT CAT=3SG.S s/he-GEN
'He is about to eat his (meat).' (PSan90)

The source marker is sometimes added to the genitive to indicate the passing on of a 'possession'. In (10.32) the source marker is optional, indicated by brackets.

10.32 *pina-ma-nku=n ngijakura(-angka) mininy*
hear-AUX-FUT=2SG.S I.GEN(-SRC) language
'You will hear my story (from me).' (2D18(1D2))

10.33 *papu-na=ngarni-ya=la panartarti ngantu-pa~ngantupa*
forget.AUX-PST=1PL.EX.S-EP=3SG.OBL MED.PL what-and~RDP

wulu-kura-angka
father-GEN-SRC
'We forgot about all those kinds of things from father.' (HTS37)

10.4.3 Inalienable possession (part-whole constructions)

Inalienable possession constructions express an inseparable relationship between possessor and possessum. Chappell and McGregor (1996) give a detailed cross-linguistic account of inalienable possession and part-whole relations. In Australian languages, they typically involve body parts (including their metaphorical use as the seat of emotions (*e.g.* Evans and Wilkins 2000)), topographical features or faults, spatial relationships and parts of objects. While an entity's name is treated as inalienable in Mangarla, as in Jaru (Tsunoda 1981), Warlpiri, and Wanyjirra (Meakins and Nordlinger 2017:13), kin relationships are not.

In Mangarla, inalienable possession can be expressed as a type of superordinate construction (§10.1), in which two underived substantives jointly index a single referent, one identifying the whole entity and the other specifying a part of it. Alternatively, the genitive can optionally mark the possessor as in other types of possessive construction. The possessor, or whole, controls agreement in the BP complex where required, whether the genitive is used or not. This can be seen in (10.34-35), where the object and subject clitics respectively register the features of the pronominal possessors, rather than those of the possessa. Possessor NPs and the clitics which register them (when forms are overt) are bolded examples below. Both elements are linked to the one function through case agreement, absolutive in the first three examples and ergative in (10.37).

10.34 *dyiangu ñaniyana nyundu burma*
*jiya-nku=ngarni-ya=**na*** ***nyuntu*** *purrma*
follow-FUT=1PL.EX.S-EP=**2SG.O** **you.SG** belly
'We will follow your will.' (McK:RT)

10.35 *ñanidyi gura n nyundu yini*
*nganijikura=**n*** ***nyuntu*** *yini*
whatsaname.GEN=**2SG.S** **you.SG** name
'What is your name?' (McK:95)
(*lit.* 'You name is whose?')

10.36 *walu nyundu diñgi*
walu ***nyuntu*** *tingki*
forehead **you.SG** large
'Your forehead is big' (McK:70)

10.37 *wulu ngu ñandyurrunga gududu dyu garinyari*
wulu-ngku=Ø*=nganyjurrungka kurturtu-ju karri-nyarri*
father-ERG=3SG.S=1PL.IN.OBL stomach-ERG stand-IPFV
'The Father loves us.' (McK:RT)
(*lit.* 'Father's love is with us.')

As for alienable possessives, there is a slight preference for the possessor/whole to precede the possessum/part when they are both expressed. However, both elements rarely occur in one clause, let alone in the same NP. Tsunoda (1981) and Blake (1977:41) argue that even when contiguous, the whole and the part are juxtaposed phrases rather than constituents of a single NP. In Mangarla, the two elements are occasionally expressed discontinuously (10.37-39) but most commonly the possessum alone is expressed, as registration of the possessor enables its ellipsis (10.40-43). Clitic pronouns register a missing possessor NP in subject (10.43), object (10.40) or oblique (10.41-42) functions.

10.38 ***paniyaru*** *nga=****ni****-ya=****rna*** *kurturtu-ju yarrkaninya*
they.ERG CAT=**3PL.S**-EP=**RR** stomach-ERG throw-NARPST
'They welcomed each other.' (Ngi3alt)
(*lit*. 'Their feelings threw themselves/ threw themselves the feelings.')

10.39 *ñaruñu milganyana gamari*
ngarrungu *mil-ka-nya=rna=****Ø*** *kamari*
person eye-AUX-PST=1SG.S=**3SG.O** bone
'I see the bones of a dead person. (McK:75)

10.40 *bani ñgu ñgananya gandina dyinda*
*pani-ngku nga=na=****nya*** *kanti-na jinta*
s/he-ERG CAT=3SG.S=**1SG.O** hit-PST bridge.of.nose
'He hit me on the bridge of the nose.' (McK:69)

10.41 *gunbulu ṉanadya yinbuṉa gurabaṉu*
*kurnpurlu nga=na=**ja** yinpu-nga kurrapa-ngu*
blood CAT=3SG.S=**1SG.OBL** spear-PRES hand-ABL
'Blood runs from my hand.' (McK:76)

10.42 *rai nanka waninjari burmanka*
*rayi=na=**ngka** wani-nyarri purrma-ngka*
spirit=3SG.S=**2SG.OBL** be-IPFV belly-LOC
'The Spirit is in your heart.' (McK:RT)

10.43 *ngalak-ku-na=**rna** marru*
headache-AUX-PST=**1SG.S** head
'My head ached.' (2sen29)

Reflexive/reciprocal agreement is triggered when the possessor is the agent of a transitive verb (10.38, 10.44).

10.44 *babar babar dyu ṉanana gadibinya bulyar*
*paparr~paparr-ju nga=**na=rna** kati-pinya pulyarr*
mistake~RDP-ERG CAT=**3SG.S=RR** cut-AUX.PST sinew
'By mistake, he cut his sinew.' (McK:77)

Examples linked by ergative agreement are rare. None is attested with an underived ergative possessor contiguous with the possessum (but see (10.50) for an NP in which the possessor is in the genitive). Very rarely, and in extenuating circumstances, the two ergative-marked elements are expressed in separate constituents (10.37-38). In the first of these examples, the use of the ergative is unexpected. The verb *karri* is generally intransitive, but here, with an optional oblique complement, the ergative marks the agent-like nature of the subject (§4.3.2.1). In (10.38), the speaker gave the possessum, *kurturtu,* without the ergative marker in the context of natural speech, but added it later.

The avoidance of inalienable possessive NPs as the subject of transitive verbs is possibly due to their syntactic ambiguity with instruments (§4.3.2.2). The ergative marker links both inalienable (10.45) and alienable (10.46) instruments to their user, but only when the optional comitative is used can a body-part be exclusively identified as an instrumental adjunct (10.47) rather than a discontinuous possessive construction (10.45).

10.45 ***kunyarr-ju*** *paja-rra=nya=kulu* *rirra-ngku*
dog-ERG bite-IMP=1SG.ACC=ANTIC mouth-ERG
'The dog might bite me with his mouth.' (2R41)
'The dog's mouth might bite me.'

10.46 *pani-ngku* *wipirti-marta-ju,* *ngayu-ngku* *purlka-marta-ju* *nga=yarra*
s/he-ERG small-CPR-ERG I-ERG big-CPR-ERG CAT=1DU.EX.S

ka-ngarrinya *ngamarna-angka-yarra-ju*
carry-NARPST breast/milk-SRC-DU-ERG
'She, the smaller, and I, the bigger, we used to carry it using two milk tins.'
(2J55)

10.47 *kunyarr-ju* *panaru-ju* *nga=na=ngka* *walja-ma-na* *makarra-artu-ju*
dog-ERG MED-ERG CAT=3SG.S=2SG.O spill-AUX-PST tail-COM-ERG
'That dog spilled it on you with his tail.' (3Sen22)
'?That dog with the tail spilled it on you.'
*'That dog's tail spilled it on you.'

Registration of the possessor as the head of the argument and its lack of adnominal morphology distinguish inalienable from alienable possession in most languages where the two types occur. Unusually, however, Mangarla speakers can use the genitive to mark possessors in both (compare 10.48 with 10.36, and 10.49 with 10.35), but still maintain the distinction in the BP complex.[38] Example (10.50) has alienable and inalienable possessive NPs, both containing genitive-marked possessors. However, the 2SG.S clitic registers the features of the inalienable possessor subject, while the object clitic =Ø registers the 3SG.O alienable possessum. Possessors also bear the appropriate relational case-marker after the genitive (10.50-51), although as for other NPs (§9.2.3), this can be omitted from a contiguous possessum (10.50).

10.48 ***nyuntu-kura*** *nimarrangka* *parra~parra=**n*** *jarri*
you.SG-GEN arm heat~RDP=**2SG.S** INCH.PRS
'Your arm hurts.' (3sen18)

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[38] Tsunoda (1981:196) also records Jaru speakers using the dative for inalienable possession in some instances as well as for alienable possession.

10.49 *wanyju wayitpal, yini* ***pantu-kura*** *George Wye*
one whitefella(E) name **MED-GEN** personal.name
'One whitefella whose name was George Wye....' (Ngi15)

10.50 *ñiidya gura minin ñan dyiangu nyundu gura dyu gududu*
*ngijakura mininy nga=**n** jiya-nku* ***nyuntu-kura-ju*** *kurturtu*
I.GEN language CAT=**2SG.S** follow-FUT **you.SG-GEN-ERG** stomach
'Will you follow these words with your heart?' (McK:RT)
(*lit.* 'Will your feelings follow my word?')

10.51 *purrma-angka* ***pani-kura-angka***
belly-SRC **s/he-GEN-SRC**
'(They are) from its belly.' (PSan65)

In fact, genitive-marking is the norm in inalienable possession in Mangarla. The unmarked juxtaposed types considered standard in the region comprise only a handful of possessive NPs in McKelson's corpus from the 1960s. These alternate with genitive-marked tokens, indicating that, although language shift is often implicated for such changes cross-linguistically (Musgrave 2005), its use with inalienable possessors is not new. Nekes, Worms and McGregor (2006:136) also note the suffix's optional use in Karajarri, leading McGregor to propose that the actual distinction between alienable and inalienable possession constructions may be optional (p. 369). This is not the case in Mangarla. When the possessor is present in the clause, with or without the genitive, the distinction between the two types is maintained in the BP complex, as described above. However, they are syntactically indistinguishable when inalienable possessors occur in adjunct (10.51) or oblique argument NPs which are not registered (10.52), or when both possessor and possessum are third person (10.53-54).

10.52 *kamurra=n waji-ma-narri, panpara-ja, turlpu-ngka* ***nyuntu-kura-ja***
uncertain=2SG.S keep-AUX-IPFV MED-LOC heart-LOC **you.SG-GEN-LOC**
'Maybe you are keeping something, in there, in your heart.' (FK100)

10.53 ***kartu-kura*** *kurnpurlu=na wurta-narri*
child-GEN blood=3SG.S flow-IPFV
'The child was bleeding.' (A62)
(*lit.* 'The child's blood was flowing.')

10.54 *dyagi na* *mana*
*jaki=rna=**Ø*** *ma-na*
guts=1SG.S=**3.SG.O** get-PST
'I took out its guts.' (McK:153)

All tokens that express parts which are separated or potentially separated from the whole also have third person referents in an oblique function, making it impossible to say if they are classed as alienable or inalienable, and whether the referent of a third person clitic is the overt part NP, or the elided whole. Both would be *Ø* in (10.54) or the oblique *=la* in (10.55). However, alternative expressions are available at such times; the part can be expressed as a core argument and the whole expressed as an affected location (10.56 - §11.3.7).

10.55 *dambal ñaniyala* *wirdyanya gudududya*
*tampal nga=ni-ya=**la*** *wirrja-nya kurturtu-ja*
stone CAT=3PL.S-EP=**3SG.OBL** put-PST stomach-LOC
'They put hot stones in the stomach.' (McK:154)
'They put hot stones in its stomach.'

10.56 *malya malya ralbiyala* *chook dya*
*malya~malya ral-piya=**la*** ***juk-ja***
?feather~RDP hair-AUX.IMP.EP=**3SG.OBL** chook(E)-LOC
'Pluck the feathers from that chook!' (McK:132)

Alternatively, the possessum/part can be expressed in a spatial case. The elided possessor/whole is registered in the BP complex as the head of the argument, the object in (10.57) and oblique in (10.58-59), even though in (10.59) the locative-marked part has been verbalised.

10.57 *pulijiman-tu=**ngarniny*** *karti-ma-na* *nimarrangka-ngu*
policeman-ERG=**1PL.EX.O** hold-AUX-PST arm-ABL
'A policeman grabbed our arms.' (1M22)

10.58 *nyaldu ṉanala* *wandi* *mandu gura* *mandyal* *ralda*
*nyaltu nga=na=**la*** *wanti* *marntu-kura* *manjal* *ral-ta*
PROX CAT=3SG.S=**3SG.OBL** be.PRES lice-GEN nits hair-LOC
'He has lice in his hair.' (McK:78)
(*lit.* 'Lice nits are in his hair.')

10.59 *rirra-ngka-ka-rra* *nga=**rnangka**=kulu* *wajarri* *mil-ta=kulu*
mouth-LOC-AUX-IMP CAT=**RR**=ANTIC NEG eye-LOC=ANTIC
'Don't (put) it in your eyes or mouth.' (2sen50)
(*lit*. 'Don't in-mouth-do it to yourself, or in eye.')

The use of the inalienable possession construction in Mangarla is limited, although the data needed for detailed analysis is not abundant and mostly relates to human body-parts. Other possible part-whole constructions containing two juxtaposed nominals include *rirringki martuwarra* [side river] 'river bank', *karrjatiyin kurturtu* [billycan stomach] 'the bottom of the billycan', and (10.60).

10.60 *wurrju-nku=n=**Ø*** ***marlpurlu*** *panartarti-pa* *kurturtarti-pa*
rub-FUT=2SG.S=**3SG.O** **baby.carrier** MED.PL-and stomach.PL-and
'You should rub the coolamons' these (parts) and bellies (outside and inside).' (HTS75)

A small number of body parts and secretions are found juxtaposed (*kunykuny walu* [brain forehead] 'brains', *walu marru* [forehead head] 'head', *purrma jina* [belly foot] 'sole of the foot', *mil ngali* [eye tears] 'tears'). However, these are possibly generic-specific types rather than part-whole constructions, where a general area of the body encompasses a smaller part. Supporting this notion, (10.61) shows how such pairs can form a complex possessum within an inalienable possession construction. Another complex possessum involving asyndetic coordination is shown in (10.62). In both, the possessor NPs have been omitted but are registered in the BP complex.

10.61 *walu* *marru=**rna*** *wirri-n*
forehead head=**1SG.S** ache-PRES
'I have a headache.' (*lit.* 'I forehead head ache.') (G147)

10.62 *milganyi* *gurabara* *dyinara*
*mil-kawa=**nya**=yi* *kurrapa-rra* *jina-rra*
eye-AUX.IMP=**1SG.O**=PL.S hand-DU foot-DU
'Look at my hands and feet.' (McK:RT)

10.4.4 Oblique possessives

Like inalienable possessives, oblique possessives register the possessor as an argument in the BP complex. The term 'oblique possessive' is coined in Meakins and Nordlinger's (2014) description of Bilinarra, who then use the term 'possessor dissension' in their subsequent examination of the construction in the Ngumpin-Yapa languages (Meakins and Nordlinger 2017) as it exhibits

> *a type of morphosyntactic disagreement (or dissension) between the syntactic position of the possessor as an NP-internal argument, and its treatment at the clausal level* (p.1)

In oblique possessive constructions (OPC) in Mangarla, a possessor is registered as an oblique argument, regardless of the syntactic function performed by the possessive NP in which it is embedded. The whole possessive phrase can also be registered in subject and oblique functions (illustrated below), but not in object function, as Mangarla does not allow two non-subject clitics, and the oblique or oblique2 fills this slot. When expressed as a nominal, the possessor is marked by the genitive as in other types of possessive constructions. The referent is always animate and is a prominent participant in the event, but never directly affected by it.

In (10.63-65), oblique clitics register first and third person singular possessors in object NPs. Examples in §10.4.2 (*e.g.* 10.31-32) and (10.75-76) provide comparisons with regular alienable possession constructions which omit the oblique clitic and simply register third person possessive object NPs by Ø. In contrast to Jaru, for example, where clitic sequences can reference two or three non-subject participants together (Tsunoda 1981:137), object and oblique clitics occupy the same slot in the Mangarla BP complex, with the latter taking precedence when there is competition (§6.1). This makes it impossible for both nominals in a possessive NP in object function to ever be overtly marked.

10.63 *kanti-na=**ja**=pala Mayarrurta kaka **ngijakura***
hit-PST=**1SG.OBL**=3DU.S placename uncle **I.GEN**
'Two people killed my uncle at Myroodah Station.' (2J30)

10.64 *white fella baldu ñanadya ñuru mana ñidya gura mulnyi*
*wayitpal-tu nga=na=**ja** ngurru-ma-na **ngijakura** mulnyi*
whitefella(E)-ERG CAT=3SG.S=**1SG.OBL** steal-AUX-PST **I.GEN** soil
'White man stole my country.' (McK:160)

10.65 *wandyira gura ñanala ganya manin*
***wanyjirra-kura** nga=na=**la** ka-nya marnin*
other-GEN CAT=3SG.S=**3SG.OBL** take-PST woman
'He took the wife of another.' (McK:100)

Possessor and possessum can be expressed contiguously (10.63-64) or discontiguously (10.65) but few examples contain both elements. The possessum can be elided when pragmatically identifiable (10.66) and, as with inalienable possession, the possessor's registration in the BP complex allows it to go unexpressed as an NP (10.67-68).

10.66 *wangarr nga=rna=**ja** ka-nya **ngijakura***
shadow CAT=1SG.S=**1SG.OBL** take-PST **I.GEN**

tina-pirri ngijakura-pirri
dinner(E)-PURP I.GEN-PURP
'I put my one in the shade (to have) for dinner.' (HTD72)

10.67 *giridyagura añga ñanala wulu*
*kirija-kura-angka nga=na=**la** wulu*
single.man-GEN-SRC CAT=3SG.S=**3SG.OBL** father
'His father is a single man.' (McK:100)
(*lit.* '(His) father is from the single men's (camp).')

10.68 *kunyarr nyaltu=**palangka***
dog PROX=**3DU.OBL**
'This dog belongs to those two.' (PSh29)

NPs in OPCs perform a range of grammatical functions. They occur in verbless possessive clauses (10.68-69), and with verbal predicates in object (10.64-66) and oblique (10.70) functions. In subject function (of intransitive and extended intransitive verbs (10.71-72) or nominal predicates (10.67)), both the full possessive NP and the modifying possessor within it are registered, the former as subject and the latter as an oblique. When the two are coreferent, the reflexive oblique is triggered (10.73, 10.80).

10.69 ***nyurra-kura*** *nga=**nyurrangka*** *kulpi*
you.all-GEN CAT=**2PL.OBL** scoop.coolamon
'It is your coolamon.' (3sen14)

10.70 *nyurru ŋgu ña nyurru dya* *ñiñara gana* *ñidya gura dya*
*nyurru-ngku nga=nyurru=**ja*** *ningarra-ka-na* ***ngijakura-ja***
you.all-ERG CAT=2PL.S=**1SG.OBL** true-AUX-PST **I.GEN-LOC**

minin dya
mininy-ja
language-LOC
'Do (*sic*.) you believe my word?' (McK:157a)
(*lit.* 'Did you believe in my word?')

10.71 ***paparla-kura**=na=**la*** *pungka-nya marrkartu*
elder.brother-GEN=3SG.S=**3SG.OBL** fall-PST younger.sibling
'The older brother's younger brother died.' (FKsen68)

10.72 ***ngijakura*** *murtika* *nga=na=**ja*** *parnta-na=na=**ja***
I.GEN car(K) CAT=3SG.S=**1SG.OBL** break-PST=3SG.S=**1SG.OBL**
'My car is no good.' (G149)

10.73 *nyaltu nga=na=**rnangka*** ***pani-kura***
PROX CAT=3SG.S=**RROBL** **s/he-GEN**
'This one belongs to himself.' (PSan83)

While Mangarla prohibits the registration of two non-subject arguments in different functions, two obliques can be signalled and I would have expected the non-singular clitic in (10.70) to be *=jala* 1SG.OBL2, to register the presence of the selected locative complement as well as the possessor (unless in this case the speaker treats 'one's word'

as inalienable). A possible example of the OBL2 clitic registering the possessor from an oblique argument is expressed in the translation given for (10.74) but the clause lacks overt NPs resulting in semantic ambiguity as described below. Inconsistency in the use of OBL2 clitics is described in §6.1.1.4.

10.74 *nganarni-ju=ngarni-nga=**rnangkala** ngaja-nya*
we.all.EX-ERG=1PL.EX.S-EP=**RROBL2** cry-PST
We cried for ourselves/with each other.' (FKNgi32)
?'We cried for (the loss of) our relatives.'

OPCs are not attested when the possessive NP is the subject of a transitive verb in Mangarla. Meakins and Nordlinger (2017) show that for some Ngumpin-Yapa languages, this is possible and, as with intransitive subjects, both the larger possessive NP and the possessor within it can be registered. However, Tsunoda (1981:140) states that in Jaru dative possessors further marked for the ergative (*i.e.* in A function), are never cross referenced independently of the NP in which they occur, unlike those in other functions. This also appears to be the case for Mangarla.

In spite of the ability to register both elements of the oblique possessive NP independently as separate functions, Meakins and Nordlinger (2017:154-155) use two criteria to show that they still constitute a single NP and that the possessor has not been raised out of the possessive NP. The first of these is obligatory referential case marking on the possessor in agreement with the possessum, as head of the NP. Unfortunately, due to the constraint on OPCs in A function, most examples in Mangarla are in unmarked Si or O functions or where possessor ellipsis has occurred. However, (10.70) shows both members of a locative NP marked in agreement. The second indication concerns the preferred second position placement of the BP complex after both elements as in (10.72). Again, this is rarely attested in Mangarla due to ellipsis of one or both NP elements, or discontinuous expression where one element is given pragmatic prominence over the other and placed clause-initially (10.69, 10.71).

Meakins and Nordlinger (2017) find that culturally significant relationships such as names, kinship, and land tenure are frequently expressed as OPCs. Neighbouring Walmajarri and Wangkajunga seem to express only these relationships as OPCs and formally differentiate them from regular inalienable possession by using the dative to

mark the possessor, while employing alternative (genitive) suffixes in other types (Hudson 1978:25, Jones 2011:88).

Mangarla's OPCs are not solely associated with socio-culturally significant relationships, and can express possession of artifacts (10.69, 10.72), food and animals (10.66, 10.68) amongst other things. OPCs are particularly common as nominal-headed possessive clauses which involve identification (10.68-69, 10.73, 10.75b - see McGregor (2001) for a description of similar non-verbal possessive expressions in Nyulnyulan languages).

The optional nature of OPC use is shown in pairs of sentences which express similar concepts with and without the oblique clitic.

10.75 *a) jarni kunyarr nyuntu-kura*
where dog you.SG-GEN
'Where is your dog?' (2sen125)

*b) jarni nga=**ngka** mayaru **nyuntu-kura***
where CAT=**2SG.OBL** house **you.SG-GEN**
'Where is your house?' (2sen120)

10.76 *a) ngijakura kuwi=rna muku-narrinya kuwi*
I.GEN meat=1SG.S club.AUX-NARPST meat
'I killed my own meat.' (2J114)

*b) ningarra=nyjangu nga=rna=**ja** muku-narrinya ngayu-ngku*
true=INDEED CAT=1SG.S=**1SG.OBL** club.AUX-NARPST I-ERG
'Truely, I killed my own.' (2J115)

In Ngumpin languages, only alienable possessive relationships can be expressed as OPCs (Meakins and Nordlinger 2017:208). However, in Mangarla, inalienable possession can also be expressed in this way. In (10.77), the possessor/whole is registered as an oblique rather than as the object, as it would in an inalienable possession construction (§10.4.3), and in (10.78-79), the possessor is registered as an oblique but it is unclear which is registered as subject, as both have third person singular referents. However, (10.80) shows the possessor doubly registered clearly as both subject and oblique.

10.77 *wadyari gundidyanña gulu miligi*
*wajarri kurnti=**ja**=n-nga=kulu miliki*
NEG eat.IMP=**1SG.OBL**=2SG.S-EP-ANTIC liver
'Don't eat my liver!' (McK:76)

10.78 *yini=na=**la** **kajana** Mirrja*
name=3SG.S=**3SG.OBL** **boy** personal.name
'The boy's name was Mirrja./ Mirrja was the boy's name.' (FK34alt)

10.79 *bandanala ñajirri*
*parnta-na=**la** ngajirri*
break-PST=**3SG.OBL** collarbone
'His collar bone is broken.' (McK:71)
(*lit*. '(His) collarbone broke.')

10.80 *nimarrangka=**rna=ja** **ngijakura***
arm=**1SG.S=1SG.OBL** **I.GEN**
'(It is) my arm.' (MW:3Sen13)

The optional use of the OPC with an inalienable possession can be seen by comparing (10.84) with (10.54 - §10.4.3) where it is absent. Ironically, both of these examples are ambiguous in different ways. Another example involving an affected location is shown in (10.81-82). In the first, an oblique2 clitic indicates the presence of two oblique arguments, the possessive NP as an affected location and the possessor embedded within it as the second oblique. In (10.82), only the possessor of the inalienable head is registered as an oblique.

10.81 *pantu janga-janga piji-ngu=na**nyala** yinjil-ma-na*
MED chain-RDP neck-ABL=3SG.S>**3PL.OBL2** release-AUX-PST
'He took that chain off their necks.' (Ngi58)

10.82 *maru ngu inya gurgaina dili*
*marru-ngu=**inya** kurrka-yi-na tili*
head-ABL=**3PL.OBL** rise-AUX-PST flame
'From their head arose a flame.' (McK:RT)

Meakins and Nordlinger (2017:164-168) note the widely recognised cross-linguistic polysemy of possessive and benefactive/malefactive constructions both of which use the dative in many Australian languages, and they acknowledge the structural similarities, and ensuing semantic ambiguity of the two in Ngumpin-Yapa languages. They also point out ambiguities with causal constructions in Warlpiri (p.159, 164). However, they argue that while the benefactive construction might have enabled the development of the OPC, the two can be clearly distinguished in Ngumpin languages synchronically. This is not always so easy in Mangarla where ambiguity often remains.

Although the dative (§4.3.3), genitive (§4.3.8) and purposive (§4.3.10) each have distinct forms and primary functions in Mangarla, their use overlaps in what constitutes yet another grammatical continuum with fuzzy boundaries. While a registered argument in Mangarla is never in the purposive, both the genitive and dative mark registered oblique arguments to signal other kinds of pseudo-possessive relationships, such as recipience (§11.3.7) or benefit/deprivation (§11.4.2), and the relationship between two closely associated entities has some similarities to the purposive (§11.4.3). Oblique clitics also register other indirectly involved participants such as affected locations marked by the locative (§6.1.1.3).

Despite overlapping uses, case and speaker translations assist in distinguishing between these functions semantically. Even so, ellipsis of an NP which is registered as an oblique results in the loss of case and sometimes translations do not reveal the function of the argument, compounding semantic ambiguity. The following examples can be translated in multiple ways, although the referenced speaker translations are given in the first line.

10.83 *kuwi=**ngalingka*** *nyalara*
meat=**1DU.IN.OBL** PROX.LOC
'Here is our meat.' (*OPC*) (MC27)
'Here is meat for us.' (*benefactive*)
?'The meat is here with us.' (?*accessory*)

10.84 *dyagi ñanala* *mana* *bira nga*
jaki *nga=na=**la*** *ma-na* *pirra-ngka*
guts CAT=3SG.S=**3SG.OBL** get-PST bush-LOC
'He took out its guts in the bush.' (*OPC*) (McK:153)
'He took the guts from it in the bush.' (*affected location*)

A review of earlier examples throughout this section will reveal many with potentially alternative translations along the same lines. While an implication of benefit or misfortune results from the semantics of possession or potential possession and loss, Meakins and Nordlinger (2017) also show that benefactive and OPC constructions in Ngumpin-Yapa languages are distinct for several reasons.

Firstly, some examples are clearly possessive and cannot be interpreted as benefactives/ malefactives (also true of the reverse). This criteria applies to many of the Mangarla examples given above containing the genitive-marker, including (10.67-70), (10.73), (10.75b), (10.78) and (10.80). The Mangarla genitive can also mark a non-selected argument in a characteristic association with another argument. This is generally registered by an oblique clitic (§11.4.3) and does not carry a benefactive/malefactive reading.

10.85 *ladyurala* *ṉaba gura,* *badayi* *ṉana* *wandu*
*laju-rra=**la*** ***ngapa-kura*** *partayi* *nga=na* *wantu*
dig-IMP=**3SG.OBL** **water-GEN** clearing CAT=3SG.S be.FUT
'Dig something for water, it will be an irrigation furrow.' (McK:60)
'Dig a water (channel). It will be a clearing.'

Secondly, in some Ngumpin-Yapa languages a clause may contain both an OPC and a benefactive, indicating that the two are distinct constructions. Further investigation is needed to confirm if this is also true for Mangarla. Previous attempts to elicit a non-coreferential possessor and beneficiary failed, as if possession and benefit were inseparable, and phrases such as 'cook my meat for him' never expressed both arguments. It may be possible for a benefactive NP to contain a possessive phrase (*e.g.* 'for my child') which could trigger the use of an oblique2 clitic as it does for beneficiaries combined with affected locations, accessories, dative complements and the like (§6.1.1.4). A potential example of this is suggested in (10.74). However, the availability of such examples is limited by the fact that multiple third person obliques cannot be registered in Mangarla, as in the Ngumpin-Yapa languages.

Thirdly, OPCs can be distinguished from benefactives by their ability to take referential case. External participants such as beneficiaries and associated participants marked by the genitive only occur as oblique arguments in Mangarla, and never take further

inflection. However, the genitive marked possessors can take referential case linking them to the syntactic function of its head. This is the locative in (10.70). Possessors with overt referential case can never be interpreted as benefactives.

Unfortunately, the lack of possessive NPs in overtly marked functions which are also registered as obliques means that possessors and other types of external participant cannot be disambiguated in many of the examples described here. Finding examples is made more difficult by the restriction on OPCs in A function described above, the fact that most datives are unmarked in Mangarla and the infrequent use of significant possessors in local case-marked NPs.

It is also important to note that in Mangarla, these ambiguities only occur in sentences where the genitive is used to mark a beneficiary/maleficiary. These are most commonly expressed as datives (§11.4.2) and the use of the genitive in this function may be influenced by Karajarri where *-kura* 'genitive' appears to be more commonly used to express most of the functions performed by the dative in other languages: possessors, beneficiaries and purpose (Burgman 2005b). The greatest ambiguity in Mangarla occurs when NPs are elided such as those described above.

OPCs are relatively common in this region. However, there appears to be a number of language-specific differences and restrictions regarding its use in some languages. Further research is needed to better define this construction in Mangarla. Elicitations of OPCs with non-singular referents and in overtly marked functions, for example, would assist in comparisons with the Ngumpin-Yapa constructions. Detailed prosodic analysis of all genitive marked constructions might also provide further insight and help to distinguish these constructions from others which are morphologically identical but semantically ambiguous.

11 Simple sentences with verbal predicates

11.1 General features

Simple sentences in Mangarla consist of one clause, *i.e.* they contain a single predicate which may be either verbal or nominal. The argument structure of predicates is lexically determined. They are subcategorised for a number of obligatory and optional arguments, and the case assigned to nominals expressing these.

The grammatical function of most arguments is registered in the bound pronominal (BP) complex (§6). Registration is optional for clauses with a nominal predicate (§12.3) and generally occurs in those with a verbal predicate, although BPs are sometimes omitted when an NP or free pronoun expresses the argument (§6.2.1). After describing some general features of the verbal clause in Mangarla, the rest of this chapter describes grammatical relations in the language (§11.2), and the basic argument structure of verbs (§11.3). Optional information in the form of non-selected arguments (§11.4) and event modifiers such as adjuncts (§11.5) may also be added to simple clauses. Nominal-headed clauses and copula constructions are examined in §12.

Mangarla is typical in displaying the canonical features of non-configurationality common among many Pama-Nyungan languages, such as Warlpiri, including discontinuous elements, null anaphora, and grammatically free word order at the clause level. These criteria have been the subject of much discussion and revision over the years (*e.g.* Hale 1983, 1989, Jelinek 1984, Simpson 1991, Austin and Bresnan 1996) and good overviews of the literature and arguments are given in Austin (2001) and Nordlinger (2014:227-232). Fundamentally, it is not the order of constituents in Mangarla which determines grammatical function, but the system of nominal case and the registration of arguments in the BP complex. Extensive case agreement allows NPs to be expressed discontinuously (§9.5), although their expression is optional and they may be omitted completely. The referents of elided arguments are usually recoverable from the BP clitics which register them, although they can be left unspecified (§11.3.9.3). Few elements are subject to word order rules (see §9.2.4 for functional ordering within the NP), although pragmatics play a role in what occurs in the first few positions of the clause. Prominent (topical or focussed) elements such as interrogatives, negatives and propostional particles

mostly occur clause-initially and the BP complex generally occurs after the first element, although its position may occasionally vary (§6.4).

Many of these features are illustrated in (11.1-11). Firstly, the word order of the transitive clauses in (11.1-7) varies. However, the subject NP is always marked by ergative case and the object NP is in the unmarked absolutive. Pronominal clitics (§6.1) register the grammatical function of these arguments and agree with their person and number.

SVO:

11.1 *ngayu-ngku=rna=Ø ma-na kapi*
I-ERG=1SG.S=3SG.O get-PST fish.ABS
'I caught a fish.' (2sen159)

VSO:

11.2 *mil-ka-ngku=la=Ø ngaliyarra-ju pani*
eye-AUX-FUT=1DU.IN.S=3SG.O you&I-ERG s/he.ABS
'You and I will see him.' (G114)

SOV:

11.3 *pani-yarra-ju=pala=Ø wirli~wirli ka-ngku*
s/he-DU-ERG=3DU.S=3SG.O fishing.line~RDP.ABS carry-FUT
'Those two will take the fishing line.' (2sen152)

OVS:

11.4 *marnin-kura=pala=Ø ka-ngarrinya panartarra-ju*
woman-GEN.ABS=3DU.S=3SG.O carry-NARPST MED.DU-ERG
'Those two carried women's business.' (Nya76)

11.5 *dyurnbuly maradyala*
jurnpurl ma-rra=jala
ashes get-IMP=1SG.OBL2
'Get ashes for me!' (McK:91)

VOS:

11.6 *mil-ka-ngarrinya nga=pala=palany jipi jurru-yarra-ju*
eye-AUX-NARPST CAT=3DU.S=3DU.O man snake-DU-ERG
'The two snakes saw the two men.' (MC15)

OSV:

11.7 *wanyjirra=na=Ø* *kampaja-ju* *ka-ngarrinya* *Nininini*
other.ABS=3SG.S=3SG.O mother-ERG carry-NARPST personal.name.ABS

janturla jarna-pa
on.hip piggyback-and
'Mother carried the other one, Nininini, on her hip and on her back.' (1J19)

Discontinuous NPs, as in (11.8), are fully described and exemplified in detail in §9.1, while the intervention of the BP complex between these and elements of complex verbs (see also §7.2.3) is examined in §6.4.1.

11.8 ***pani-ngku*** *nga=na=Ø* *yinpu-nga* *mili~mili* ***kaparli-ju***
s/he-ERG CAT=3SG.S=3SG.O spear-PRES paper~RDP.ABS **sister-in-law-ERG**
'She, who is my sister-in-law, is spearing paper (writing).' (G153a)

Null anaphora allows NPs to be omitted. Thus, in natural speech, a well-formed clause may consist of simply a finite verb and the bound pronouns which register arguments. In (11.9) the subject NP is omitted, in (11.10), the object NP is missing, and (11.11) has no overt NP arguments. Null anaphors are interpreted pragmatically.

11.9 *mil-ka-ngarri=na=Ø* *kuwi*
eye-AUX-IPFV=3SG.S=3SG.O meat.ABS
'He sees game.' (PSh37)

11.10 *wirirl-tu=na=Ø* *ka-nya* *marawu-yangka*
king.brown.snake-ERG=3SG.S=3SG.O carry-PST nest-SRC
'The king brown snake took it from the nest.' (PSan92)

11.11 *ma-nku=na=Ø*
get-FUT=3SG.S=3SG.O
'He will get it.' (HTG137)

11.2 Grammatical relations

Dependent elements of a simple clause can be identified as either arguments or adjuncts. Arguments can generally be distinguished from adjuncts because they are selected by the predicate and assigned a unique grammatical relation in the clause, which, in Mangarla, has the potential to be registered in the BP complex.[39]

Adjuncts, on the other hand, provide additional non-essential information about an event or its participants. They are semantically independent from the predicate and their presence or absence does not affect its meaning or result in ungrammaticality. Adjuncts can be added freely to most clauses and cannot be registered in the BP complex. Frequently, they provide contextual information, locating the participants or event in time or space, specifying the manner in which an activity is carried out, its purpose or its cause.

Following Simpson's (1991:307) analysis of Warlpiri, I propose that all participants capable of being registered in the BP complex are arguments. However, in Mangarla, not all arguments are capable of being registered (*e.g.* secondary objects - see footnote 39) or are necessarily registered (see §6.2.1).

I classify arguments as either direct (also called 'terms' or 'core arguments') or oblique (*cf*. Kroeger 2005:57). Direct arguments are those participants necessary to the activity described by the predicate if the sentence "is to have complete sense" (Dixon 1980:294). Direct arguments recognised in Mangarla are subject and object (direct and secondary) and copula complement (§12.1). These have a much closer grammatical relationship to the verb than oblique arguments which identify important participants involved in the event directly or indirectly, but which can be semantically independent from the predicate, like adjuncts, and can often be omitted without reducing the acceptability of the utterance. However, unlike adjuncts, most occur with a restricted set of predicates providing evidence that they are selected by them (Kroeger 2005:57). Optional oblique arguments can enrich the basic meaning of a predicate, seen in different translations for the same verb in sentences with and without an oblique argument. This is particularly true

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[39] Two exceptions occur. The secondary object of ditransitive verbs (§11.3.7) which always has the semantic role of theme, is never registered. Copula complements are not generally registered (§12.1).

for intransitive/extended intransitive verbs (§11.3.3/§11.3.4). However, some oblique arguments are introduced into a clause syntactically, as described in §11.4.

As stated previously, grammatical relations are expressed by a combination of nominal case-marking and BPs which register them. Where NPs occur, case-marking usually differentiates direct from oblique arguments. Nominals representing core participants distinguish between the subject of a transitive verb (A), marked by ergative case, and the subject of an intransitive verb (Si), which is in the unmarked absolutive, as are nominals in object function: direct (O) and secondary (O_2). Oblique arguments (OBL) occur with a restricted range of case markers (Table 11.1), including the unmarked dative and others which also occur on adjuncts. In instances where ambiguity may arise, say where an NP is unmarked or elided, the identity of arguments is generally (but not always) recoverable from BPs. The constraints on registering arguments are described in §6 and Table 11.1 summarises the expression of arguments in Mangarla.

Copula complements are selected by copula verbs and take one of four cases (absolutive, locative, genitive or dative) according to semantic type. They are excluded from Table 11.1 and the discussion until their description in §12.1.

Table 11.1 Verbal arguments and their realisation

FUNCTION		NP CASE	BOUND PRONOUN
subject (S)	intransitive (Si)	ABSolutive (Ø)	**S**ubject clitic
	transitive (A)	ERGative	
(direct) object (O)		ABSolutive (Ø)	**O**bject clitic
secondary object (O_2)		ABSolutive (Ø)	not registered
oblique (OBL)		DATive GENitive LOCative ALLative ABLative	**OBL**ique clitic

All verbs select a **subject** (S) which is registered in the BP complex by a unique subject clitic, usually in the first slot of the BP complex (although some undergo a process of clitic shift in certain combinations - §6.1.2.2). Subject NPs are in absolutive or ergative

case according to the transitivity of the verb. The subject controls the reflexive/reciprocal clitic and is unrestricted in the range of semantic roles it may have.

A (**direct) object** (O) is selected by most bivalent and trivalent verbs. It is usually registered in the BP complex by an object clitic which agrees in number and person with an absolutive NP, if expressed. The object clitic normally occurs in the second clitic slot of the BP complex after the subject clitic (again subject to clitic-shift in some combinations - §6.1.2.2), unless replaced by an oblique or oblique2 clitic. Direct objects feed reflexive/reciprocal constructions. When two core absolutive (non-subject) arguments are selected, as with some ditransitive verbs, the direct object has a theta role other than theme, such as recipient or experiencer. Direct Objects otherwise have a wide range of thematic roles.

A **secondary object** (O_2) is one of two unmarked absolutive nominals selected by certain ditransitive verbs in double object constructions. With only one non-subject slot occupied by the object (or potentially an oblique) clitic, O_2 is never registered in the BP complex. Its semantic role is restricted to theme.

OBLique arguments can be selected by certain verbs and predicational nominals acting as preverbs or they can be non-selected participants introduced into the clause in other ways (§11.4). The latter have a limited range of semantic roles, primarily as beneficiaries/maleficiaries and associated participants. Some selected obliques are required, such as those which subcategorise semitransitive (§11.3.6) and certain ditransitive verbs (§11.3.8). Others are optional, selected by both intransitive and transitive verbs to produce extended intransitive (§11.3.4) and ditransitive oblique (§11.3.8) expressions.

All types of oblique arguments have identical syntactic behaviour and can be registered by oblique (§6.1.1.3) or oblique2 (§6.1.1.4) BPs which usually occur in second clitic slot displacing any potential O clitic (§6.1.1.2). However, obliques are frequently unregistered. Registration is influenced by semantic role, the degree of the referent's involvement, animacy, person and its expression or not as an NP (§6.2.1). Oblique arguments can feed oblique reflexive/reciprocal constructions (§6.1.1.5).

NPs expressing oblique arguments can be in one of five cases which are aligned to the semantic role of the argument in a given clause: spatial cases (locative (§4.3.4), allative (§4.3.5), ablative (§4.3.6)), the dative (§4.3.3), and the genitive (§4.3.8), which is only borne by non-selected participants. These sometimes alternate such that a verb may assign dative case to an oblique in one context and, in another, it may assign a different case, such as locative or allative. Often, these alternations have no perceptible change of meaning (*yunga* 'give ABS to DAT/LOC', *yajinga* 'wait for DAT/LOC'). At other times, the change of case refines or elaborates the meaning of the verb in some way, particularly when directionality is involved (*yarrkan* 'throw to DAT/ at ALL/ onto LOC', *parti* 'go to ALL', 'encounter DAT'). What appear to be alternative case frames for many verbs are probably only semantic adjustments made by speakers in varying contexts, particularly when a verb is polysemous or semantically complex, *e.g. kapan* 'come (to ALL/from ABL)' and 'stay (with DAT/at LOC')'. Examples in following sections are chosen to illustrate these variations which may possibly also result from the influence of other languages. For example, Mangarla speakers who use the genitive for benefactives may be influenced by Karajarri which uses the same form, homophonous with the Mangarla genitive, for possessives, benefactives and purposives (Burgman 2005b), and, while Walmajarri marks all accessories with the locative regardless of directionality (Hudson 1978), Nyangumarta (Sharp 2004) and Wangkajunga (Jones 2011) mark arguments in all three local cases.

Hence, selected oblique arguments have a range of semantic roles. Most refer to entities implicated in an event often as its source or target. They may or may not be affected by the action and can be chiefly characterised into five semantic groups: accessories, affected locations, goals (including recipients) and directional projections toward and away from these. Spatial cases usually have a locational or directional component which is transparent, but dative obliques embrace a wider range of semantic roles. They often encode a projected goal or target of an action (*lajun* 'dig in search of DAT', *yinpunga* 'intend to spear but miss DAT'), communication (*jangku-man* 'reply to DAT', *marran* 'say to DAT'), or emotion and perception (*numarrun* 'be jealous of DAT', *rayin-tarri* 'be afraid of DAT'). Some verbs assign dative case to a partially affected entity (*jinyan* 'trim DAT', *martanga* 'cover DAT'). Different types of verb have varying propensities to select obliques in different cases as shown in subsequent sections.

Optional oblique arguments can be difficult to distinguish from adjuncts. Firstly, neither is required for a clause to be grammatical. Secondly, while adjuncts take a broader range of cases than oblique arguments, including purposive, source, manner and comitative, certain cases, like the spatial cases, can mark both, and although adjunct NPs are never registered, the registration of obliques is inconsistent. The function of an unregistered NP can be ambiguous but the lack of a BP clitic does not necessarily signify that it is not an argument (§6.2.1). However, the ellipsis of NPs frequently leaves the burden of argument identification to the BPs which register them. Conversely, if an adjunct NP is deleted, the information it carries is completely lost.

The uniqueness constraint applies to arguments but not to adjuncts. This prevents a verb from selecting more than one of any particular type of argument (Kroeger 2005). Hence, while a clause in Mangarla may contain more than one oblique argument (evidenced by the use of the second oblique clitic - §6.1.1.4), only one can subcategorise the verb and they are semantically restricted, *i.e.* each will have a different semantic role (the second will generally be a beneficiary or associated participant - §11.4). Adjuncts, however, may recur in a clause with the same semantic role (§11.5.1), as with the two locative NPs in (11.12), which follows Table 11.2.

The main differences between adjuncts and oblique arguments are shown in Table 11.2.

Table 11.2 Contrasting features of oblique arguments and adjuncts

Feature	**OBL argument**	**adjunct**
grammatically obligatory	sometimes	never
subclassify verbs	sometimes	never
is registered by a BP	sometimes	never
can be registered by BP	yes	no
unique within a clause	yes-semantically restricted	no
can take referential case	no	yes
information recoverable if NP elided	yes from BP	no
NP cases	5 cases: dative, locative, allative, ablative, genitive	7 cases: locative, allative, ablative, source, manner comitative, purposive,

11.12 *maru nga ñana dyidadu dya ganya ñaba*
marru-ngka nga=na jitartu-ja ka-nya ngapa
head-LOC CAT=3SG.S headpad-LOC carry-PST water
'She carries water on a pad on her head.' (McK:102)

11.3 Argument structure

11.3.1 Overview

Verbal argument structure is subject to the uniqueness constraint and a limit of no more than two non-subject arguments. Argument structures arising from the binary system of nominal case-marking and argument registration by BPs are given in Table 11.3.

The first column names each verbal category and shows that a range of combinations occur outside the traditional verbal categories of intransitive and transitive. Verbs with an absolutive subject are referred to here as 'intransitive' variants although many can select non-subject arguments as semantic extensions of their basic monovalent sense. Those with an ergative subject are split into bivalent 'semitransitive' and 'transitive' variants distinguished by the function of the non-subject argument. Ditransitive types also select an ergative subject but take two non-subject arguments. An obligatory second non-subject argument can be expressed as a secondary object or as an oblique; for all other ditransitive verbs, the selection of an oblique argument is optional.

The second column gives the case of the NP registered as subject; the third and fourth columns give the case of non-subject NPs. In this Table, the cases of oblique arguments are differentiated as DATive or LOCAL, the latter encompassing one or more of the three spatial cases which might mark an oblique. The subscript gives the grammatical function of the NP. The final column gives examples of verbs from that category in the present tense.

Table 11.3 Argument structures of Mangarla verbs

INTRANSITIVE				
impersonal	unspecified subjects$_S$			*yurranyangarri* 'become morning' *palamparr-punga* 'dawn'
simple intransitive	ABS$_S$			*parnta* 'break' *karri* 'stand' *pungka* 'fall/die' inchoative-derived verbs: *lampu-yarri* 'sleep'
extended intransitive	ABS$_S$		DAT$_{OBL}$	*wanti* 'stay with' *purta* 'come upon'/ 'come involved with' inchoative-derived affective verbs: *parrarrka-arri* 'be sorry for' *rayin-tarri* 'be afraid of'
	ABS$_S$		LOCAL$_{OBL}$	*wanti* 'stay with' *karnti* 'climb on' *parti* 'go to/from/for' *nguwin* 'return from'
TRANSITIVE				
simple transitive	ERG$_S$	ABS$_O$		*kurnan* 'eat' *man* 'get' *mil-kanga* 'see' *punga* 'hit'
SEMI-TRANSITIVE	ERG$_S$		DAT$_{OBL}$	*yaji-punga* 'wait for' *yinan* 'say name of' *pirin* 'look for' conatives: *man* 'try unsuccessfully to get'
	ERG$_S$		LOCAL$_{OBL}$	*pap-pun* 'forget about' *ningarra-kan* 'believe person/in' *mil-kanga* 'look at, watch'
DITRANSITIVE				
double object	ERG$_S$	ABS$_O$	ABS$_{O2}$	*yunga* 'give' *yita-kanga* 'give' *jurrungkul-man* 'show'
oblique ditransitive	ERG$_S$	ABS$_O$	DAT$_{OBL}$	*marran* 'tell to' *yunga* 'give to' *jangku-man* 'say in reply to'
	ERG$_S$	ABS$_O$	LOCAL$_{OBL}$	*ngunyi-man* 'send to' *wirrjanga* 'put' *jakurl-man* 'report to' *kanga* 'carry to/from' *jurrungkul-man* 'show to'

Both simple and complex verbs occur in each subcategory. Some verbs occur in more than one category. Ambitransitive verbs which occur as intransitive and as transitive

verbs, such as *mininy-punga* ‘speak’, have two lexical entries, and are examined in §11.3.9.1. However, simple variations in case assigned to obliques of the same verb are not treated as separate lexical entries. For verbs such as *kapan* ‘come, sit’, multiple entries which are context-, or even speaker-, dependent for interpretation and which frequently overlap, such as those given below, would overcomplicate the lexicon.

kapa-N	[ABS] ‘sit/camp’, ‘come’
	[ABS DAT] ‘encounter’, ‘meet’, ‘join’
	[ABS ALL] ‘come back to’, ‘sit with’, ‘join’
	[ABS LOC] ‘sit with’, ‘stay at’
	[ABS ABL] ‘come back from’

Verbs like this can be better handled by lexical rules which assign the case of an oblique according to the semantic roles required in each context. Hence, the lexical entry for *kapan* would be as a simple intransitive with an optional oblique argument and speakers could freely adjust the rules linking case to the semantic role of the argument, while *yunga* ‘give’ which can select non-subject arguments in different functions, would have two entries with the second allowing the case of the oblique to vary between dative and locative (§12.3.8).

kapa-N	[ABS (OBL)] ‘sit (with/at)’, ‘come (to/from/upon)’
yu-NG	[ERG ABS ABS] ‘give’
	[ERG ABS OBL] ‘give’

A speaker’s variation of the assigned case or grammatical function of an argument might reflect its semantic/pragmatic importance to the event, or may vary to supply relevant spatial or direcional information without necessarily affecting the meaning or structure of the verb. Dialectal preference may also be an influence on the choice of expression.

Variation in the application of case marking, of both oblique, and subject NPs which can be subject to optional ergative-marking (§4.3.2.1), adds to the difficulty in determining argument structure at times. As noted earlier, and by others (*e.g.* Hale 1982, Dench 1995, Gaby 2006), other phenomena such as ellipsis in natural speech of both NPs and BPs is common and leaves gaps in the data. This can be critical, particularly when a verb has only one or two tokens or where a core argument is not expressed by either NP or BP

(§11.3.9.3). The difficulty is compounded by formal syncretism (*e.g.* of dative and absolutive cases (§4.3.3.1)) and homophony (*e.g.* in BP complexes (§6.1.2.1)), and conflicting data, along with variations in the argument structure of individual verbs (§11.3.9.1). Contrary to the belief that there is a strict division between transitive and intransitive verbs and that any change in transitivity is accompanied by an overt derivational affix (Dixon 1980:278), verbs in Mangarla exhibit great flexibility. A verb may be ambitransitive (§11.3.9.1), or have the ability to register non-subjects as O or OBL (§11.3.6), something which can even vary according to the person/number of the referent (§6.1.1.3-§6.1.1.4, §11.3.9.4).

Variations in case and/or argument structure can be by a single speaker or throughout the community. Some are associated with different speakers, potentially as a result of second language interference or simply through language decline. In the following sections, examples containing non-subject NPs unmarked for case are glossed as dative or absolutive according to the BPs which register them. For clarity, a 3SG.O clitic (=Ø) is also glossed when the NP is known to be absolutive.

11.3.2 Impersonal verbs

Impersonal verbs refer to environmental conditions such as weather or diurnal phases. They occur without a referential subject but always contain a 3SG.S clitic, the referent of which is unspecified. Only one verb (11.13) is attested to function exclusively as an impersonal, but occasionally a similar verb is derived with the inchoative suffix (11.14) or the independent inchoative/copula verb is used (11.15-16).

11.13 *wajarri=na palamparr-pu-ngarri-ma*
NEG=3SG.S dawn-AUX-IPFV-PSTIRR
'It wasn't dawn(ing).' (1J27)

11.14 *yurranyangu-arri-nya=na*
morning-INCH-PST=3SG.S
'It became morning.' (FK80)

11.15 *wilpuru=na jarri*
spring=3SG.S INCH.PRES
'It is spring.'/ 'Spring has come.' (2sen97)

11.16 *warlu=na jarri*
fire=3SG.S INCH.PRES
'It is getting hot.'/ 'Heat grows' (2sen95)

Hale (1982:231) reports that similar constructions in Warlpiri are sometimes considered by speakers to have an understood subject such as 'camp', 'sky' or 'country', which can be made overt. It is unknown if this is so for (11.13-14), which appear to incorporate the subject in the verb, but it is probably true for more typical expressions where simple transitive verbs or idioms are used. Sentences (11.17-18) have no overt subjects but potentially, an NP such as *ngulungulu* 'sun' could be expressed as it is in (11.19).

11.17 *kara=na kurnti-narri*
west=3SG.S enter-IPFV
'(The sun) is entering the west.' (2sen162)

11.18 *kara wurrp*
west go.down
'sunset'

11.19 *ṉulu~ṉulu ṉa=na gandinya*
ngulu~ngulu nga=na karnti-nya
sun~RDP CAT=3SG.S climb-PST
'The sun rises (*sic*.).' (McK:67)

A possible explanation for the independent inchoative types (11.15-16) is that the BP registers the solitary NP which is the subject of the verb, as per the second translations, rather than an ascriptive complement as it is in (11.20).

11.20 *pirriya=rna jarri*
cold=1SG.S INCH.PRES
'I am getting cold.' (G130)

11.3.3 Intransitive verbs with an absolutive subject [ABS]

An intransitive verb selects a single argument in absolutive case. This is generally registered by a subject clitic. In (11.21) the unmarked absolutive subject NP *ngapa* is registered as *=na* [3SG.S].

11.21 *ngapa=na purta-nyarri*
water=3SG.S come-IPFV
'Rain is coming.' (HTD94)

Many verbs in this subcategory relate to stance, motion, bodily functions and communication. Few refer to processes. All of the simple stative verbs used as copulas (§12.1) also act as intransitives with semantic content (11.22). Members come from all conjugation classes, but just over half of the monomorphic verbs of the Ø conjugation are intransitive together with all of the complex verbs derived by the inchoative suffix (11.23). Very few belong to the *-wa* conjugation class (11.25).

stative: *karri* 'stand', *wanti* 'stay/ be', *kapan* 'sit', *jarri* 'be, become', *waku-yarri* 'be hidden', *lampu-yarri* 'sleep'
motion: *purta* 'come', *parti* 'go', *yan* 'go', *puka* 'come', *karnti* 'climb', *kurntin* 'enter', *kartiyarri* 'run', *kurtiji-yarri* 'run', *nguwin* 'return', *kulpa* 'come back', *wurtan* 'flow', *jawun* 'swim', *kurrka-yin* 'arise', *yukurr-jun* 'crawl', *jurr-kan* 'descend', *kapat-tun* 'jump', *turrpan* 'blow (wind)'
bodily functions: *rangun* 'breathe', *rang-jun* 'pant', *nyampurr-man* 'bathe'
affective: *rayin-tarri* 'fear', *kuli-yarri* 'be angry, *numarun* 'envy', *yijin* 'laugh'
communication: *mininy-punga* 'speak', *ngurun* 'howl', *kawurt-tun* 'be quiet', *jada-yin* 'groan'
processes: *parntan* 'break', *pungka* 'fall, *paya-punga* 'burn'

11.22 *nyaltu wanyjirra kaniny nga=na wanti*
PROX other below CAT=3SG.S be.PRES
'This other one lives down below (in town).' (2J37)

11.23 *pantangkaju purlka-arri-nya ngayu*
after.that big-INCH-PST I
'So, I grew up.' (FK28)

11.24 *gunyar ñana raṉ raṉ dyun*
kunyarr nga=na rang~rang-ju-n
dog CAT=3SG.S breath~RDP-AUX-PRES
'The dog is panting.' (McK:141)

11.25 *wanyjirra=na pungka-nya*
other=3SG.S fall-PST
'The other has passed away.' (1J8)

Many intransitive verbs occur in more than one subcategory. Some are ambitransitive (§11.3.9.1), including *mininy-punga* 'speak' and many can take an optional oblique argument (§11.3.4).

11.3.4 Extended intransitive verbs with an oblique [ABS DAT/LOCAL]

The semantic role of an optional oblique argument selected by an intransitive verb varies.

11.26 *nganarni wanyjirra-ja wulu-ngka nga=ngarni karluwara-arri-nya*
we.all.EX other-LOC father-LOC CAT=1PL.EX.S born-INCH-PST
We were born of another father. (1J11)

Intransitive verbs of **stance and motion** select obliques which generally denote the locus of the event (with or without a directional component), participants who are indirectly involved or other accessories. NPs denoting physical locations are not generally registered in the BP complex, unless they are animate or significant to the discourse (§6.2.1).

11.27 *ngalyarra-Ø=yarrangka wanyju kampaja wani-nyarrinya*
s/he&I-DAT=1DU.EX.OBL one mother be-NARPST
'One mother lived with us two.' (FK22)

11.28 *marrawarn-ta ngapa-ngka=pala wani-nya*
claypan-LOC water-LOC=3DU.S be-PST
'They stopped at that claypan.' (Nya26)

11.29 *parti-nya=ni-ya=la* *pantu-karti* *kajana-karti,* *wayitpal-karti,*
go-PST=3PL.S-EP-3SG.OBL MED-ALL boy-ALL whitefella(E)-ALL
'They went up to that boy, to the whitefella.' (FKNgi63)

11.30 *gandiyala*
karnti-ya=la
climb.IMP-EP=3SG.OBL
'Ride him!' (*lit.* 'Climb on him.') (McK:163)

The oblique reflexive/reciprocal clitic indexes the coreference of the subject and oblique.

11.31 *wani-nya=pala=rnangka*
be-PST=3DU.S=RROBL
'The two stayed with each other.' (2J86)

Often the meaning of the verb is enhanced in some way when an oblique is added (*e.g.* 11.30). Verbs of motion with an accessory can be interpreted as 'encounter', 'meet', 'approach' or 'bring' *etc.* Accessories in the dative (§4.3.3.2.3) or allative (§4.3.5.2) can be the primary motivation for an event and are preferred to comitative-marked adjuncts expressing accompaniment in this context. Despite omitting all argument NPs in (11.34), the oblique2 BP indicates the presence of two accessories (§6.1.1.4), shown in the translation and interpreted contextually.

11.32 *wulu=na=ngarningka* *kapa-narrinya* *nganarni-karti*
father=3SG.S=1PL.EX.OBL sit-NARPST we.all.EX-ALL
'Father would come and sit with us.' (1J79alt)

11.33 *purta-nyinya=na=la* *marlpurlu-Ø*
come-NARPST=3SG.S=3SG.OBL baby.carrier-DAT
'He would come with the baby carrier.' (HTS21)

11.34 *kaniny nga=ni=ngarningkala* *kapa-narrinya*
below CAT=3PL.S=1PL.EX.OBL2 sit-NARPST
'They came and sat down with us below with meat.' (1J141)

Verbs signifying cognitive and affective states, mostly formed with the inchoative, can also take obliques in dative and sometimes locative cases to indicate the target toward which an emotion is directed.

11.35 *pantu mininy, wajarri=inya pararrka-arri-ma pantu-kura-arti-Ø*
MED language NEG=3PL.OBL sorry-INCH-PSTIRR MED-GEN-PL-DAT

ngarrungu-arti-Ø
person-PL-DAT
'His words showed no pity for his people.' (Ngi51)

11.36 *numaru nari balanga manin ba dyibi*
numaru-narri=palangka marnin-pa jipi-Ø
envy-IPFV=3DU.OBL woman-and man-DAT
'He is jealous of that man and woman.' (McK:160)

Intransitive verbs of communication frequently occur with oblique arguments expressing the addressee. The intransitive *mininy-punga* 'speak' can select an oblique argument in locative case. However, this verb is ambitransitive (§11.3.9.1), and ambiguous when the subject NP is elided. The case frame of other intransitive predicates which occur with an optional non-subject argument, such as *ngany-jun* 'give cheek to', *yijin* 'laugh at' and *jatayin* 'groan about', is also indeterminable without NPs.

11.37 *ñandu birri dyan idyinari*
ngantu-pirri=ja=n yiji-narri
what-PURP=1SG.OBL=2SG.S laugh-IPFV
'Why are you laughing at me?' (McK:160)

11.3.5 Transitive verbs [ERG ABS]

Transitive verbs select a subject NP in the ergative case, and a direct object in the absolutive. Subject and object are both marked in the BP complex, although a lack of overt marking in either position is usually interpreted as third person, either singular or unspecified for number (11.38-39), unless an NP (including free pronoun) is present (§6.2.1). Verbs of this category denote actions from all semantic fields including many

formed with the transitivising auxiliary verb *kan* 'do', which commonly combines with loanwords as preverbs.

> **processes and activities**: *karti-man* 'hold', *punga* 'hit, kill', *yinpunga* 'spear', *pajan* 'bite', *kurnan* 'ingest', *mukun* 'club', *jani-man* 'cook', *ngampurr-man* 'care for', *wira* 'shoot/grind', *kurtayin* 'mix', *lajun* 'dig', *man* 'get', *wuly-jun* 'wet', *yinjil-man* 'release', *jayan* 'cook/burn', *purlka-kan* 'raise (child)', *kurlmirri-kan* 'round up', *martanga/martapunga* 'construct', *pirti-man* 'create'
> **movement and transfer:** *ngunyi-man* 'send', *kanga* 'carry', *jiyan* 'follow', *wirrjanga/ wirrja-punga* 'put,' *jurran* 'pour', *yarrkan* 'throw', *wanyjan* 'leave', *kanyin* 'dance/stir/mix', *kurtiji-kan* 'chase'
> **perception:** *mil-kanga* 'see', *pina-man* 'hear/understand', *nganga-nyanga* 'forget', *parnti-man* 'smell', *yakurr-jun* 'dislike', *liyani-kan* 'like'.
> **communication**: *japirr-man* 'ask/invite', *rurrpja-kan* 'answer', *yipan* 'argue, growl at'.

11.38 *nganyjurru-ju=la=Ø* *ma-narri warlu-Ø*
we.all.IN-ERG=1PL.IN.S=3SG.O get-IPFV fire-ABS
'We are all getting firewood.' (2sen216)

11.39 *kurna-nku=yarra=Ø* *ngalyarra-ju nyalartu pulawa-Ø*
ingest-FUT=1DU.EX.S=3SG.O s/he&I-ERG PROX flour(E)-ABS
'We two (not you) will eat this damper.' (HTD65)

11.40 *ñayu-ñgu* *ñanambalany* *milganya* *nyumbala*
ngayu-ngku *nga=rna=mpalany* *mil-ka-nya* *nyumpala-Ø*
I-ERG CAT=1SG.S=3DU.O eye-AUX-PST you2-ABS
'I saw you two.' (McK:40)

The reflexive/reciprocal clitic (§6.1.1.5) registers an object which is coreferent with the ergative subject.

11.41 *nyuntu-ngku=n-nga=rna kati-pinya*
you.SG-ERG=2SG.S-EP=RR cut-AUX.PST
'You cut yourself.' (3Sen80)

11.42 *wajarri=ngarni=rna nganga-nya-wayi nganarni-ju*
NEG=1PL.EX.S=RR lose-AUX-NPIRR we.all.EX-ERG
'We can't forget who we are.' (1D85)

Many transitive verbs occur in more than one subcategory. Some also occur as intransitives (§11.3.9.1) and many can add an optional oblique argument to become ditransitive (§11.3.8), while another group can select an oblique non-subject argument in place of the absolutive object (§11.3.6).

11.3.6 Semitransitive verbs [ERG DAT/LOCAL]

Semitransitive verbs subcategorise for an ergative subject and an oblique non-subject argument. They are sometimes called 'middle verbs' (Hudson 1978, Swartz 1982). Semitransitive verbs largely describe activities in which the non-subject argument has an indirect association. The non-subject argument can take dative or locative case, and many verbs can take either (11.43). A small number mostly select the locative while one group selects the dative as an alternative to an absolutive complement, with an accompanying change of meaning. Verbs which always select an oblique complement include:

processes and activities: *ngampurr-jun* 'be careful with', *wayurr-jun* 'winnow, shake', *lakarr-jun* 'mount', *kinjirr-kan* 'dance around', *jakart-tun* 'sneak up on'
cognitive and perception: *yajinga/yaji-punga* 'wait for', *pap-pun* 'forget about', *pirin* 'search for', *ngaja* 'cry for', *kinkirr-nyanga* 'keep watch for', *ningarra-kan* 'believe (in)', *yinan* 'say name of'

11.43 *paparla-arra-Ø=ngarni=palangka yaji-ngarrinya kujarra-Ø panta-arra-Ø*
brother-DU-DAT=1PL.EX.S=3DU.OBL wait-NARPST two-DAT MED-DU-DAT
'We waited for those two two elder brothers.' (1J153)

11.44 *ngayu-ngku=rna=palangka ngijakura kaka-pa ngunyarri-Ø*
I-ERG=1SG.S=3DU.OBL I.GEN uncle-and aunt-DAT

ngaja-nyarrinya
cry-NARPST
'I was crying for my uncle and aunt.' (1M56)

11.45 *babala dya ñanala largar dyuna yawadadyu*
paparla-ja nga=na=la lakarr-ju-na yawarta-ju.
brother-LOC CAT=3SG.S=3SG.OBL mount-AUX-PST horse-ERG
'The horse ran over Brother Richard (August, 1972).' (McK:80)

11.46 *babunanala nyundu gura dya minin dya*
papu-na=rna=la nyuntu-kura-ja mininy-ja
forget.AUX-PST=1SG.S=3SG.OBL you.SG-GEN-LOC language-LOC
'I forgot your word.' (McK:158)

11.47 *wajarri=rna=la ningarra-ka-ntama ngayu-ngku pani-ngka*
NEG=1SG.S=3SG.OBL true-AUX-PST.IRR I-ERG s/he-LOC
'I did not believe him.' (3Sen61)

The next example shows a reciprocal construction, where the oblique argument is coreferent with the subject.

11.48 *pantu=pala=rnangka piri-narrinya paparla-Ø pani-ngku*
MED=3DU.S=RROBL search.for-NARPST elder.brother-DAT s/he-ERG
'My two brothers were looking for each other.' (2J85)

Typically, many examples with an oblique BP have no NP to determine the case of the argument (11.49) and often, all NPs are elided, including the subject (11.50).

11.49 *dyibingu manindu wayur junpalala*
jipi-ngku marnin-tu wayurr-ju-n=pala=la
man-ERG woman-ERG winnow-AUX-PRES=3DU.S=3SG.OBL
'The man and the woman winnow.' (McK:106)

11.50 *ngampurr-ju-narrinya=ngarni-ya=la*
careful-AUX-NARPST=1PL.EX.S-EP=3SG.OBL
'We would be careful with it, (in case it got away).' (2J15)

With no subject NP, it can be difficult to determine if a verb, such as that in (11.50), is not semitransitive but rather extended intransitive (§11.3.4) which assigns absolutive rather than ergative case to its subject. Furthermore, considerable overlap occurs between these two categories due to a tendency, possibly borrowed from Nyikina (Stokes

1982:132), to mark the subjects of intransitive verbs as ergative when an optional oblique is added (§4.3.2.1). Further research may reveal the semitransitive category to be larger than indicated, with dual classification for some verbs classified here as (extended) intransitive.

Another fuzzy area of classification involves verbs which appear to be transitive selecting an absolutive complement *i.e.* with no overt case marking and no overt BP registering them, but which occasionally occur with an overtly-marked dative argument. One such verb is *warrin* 'seek', whose cognates in related languages select dative complements but in Mangarla, most clauses containing them are formally identical to transitive clauses (11.51). The ambiguity between third person absolutive complements and unregistered unmarked dative NPs is described in §4.3.3.1. The elicitation of additional examples of such verbs, which contain an animate complement and/or one marked for number may reveal their true status.

11.51	*ngayu-ngku*	*mininy-Ø*	*nga=rna*	*warri-n*
	I-ERG	language-?ABS/?DAT	CAT=1SG.S	seek-PRES
	'I am looking for words.'			(93sen29)

In addition to verbs which always select an oblique, many others which normally select a direct object in the absolutive clearly have an alternative argument structure in which an oblique non-subject argument is selected. For Warlpiri, researchers have distinguished two subcategories which do this. The first of these 'is typically associated with "verbs of seeking"' (Hale 1982:249), *e.g.* 'dig for', 'chop for'. In what Laughren (1988) dubs 'obtain' and 'goal' uses, the semantic role of the complement of verbs of impact and perception shifts from theme to goal where an absolutive complement indicates that the action is achieved but only partially or potentially achieved when a dative complement is used.

The second subcategory of verbs which select either absolutive or dative complements involves a change of meaning between what Laughren (1988) calls 'effect' and 'conative'. This variation is used "to describe the situation in which the effect normally resulting from the action denoted by the verb is, for one reason or another, aborted or else is subordinated in importance to the action itself" (Hale 1982:249). The regular transitive construction given in (11.52a) can be compared with the conative type in (11.52b) in

which the particle *titirrp* ‘unsuccessful’ is used. This particle, and *jaly* ‘in vain’, may influence the selection of a dative complement.

11.52 *a) pulumanu-Ø nga=ni=Ø yinpinya*
bullock-ABS CAT=3PL.S=3SG.O spear.PST
‘They speared a bullock.’ (FKNgi57)

b) didirb ṉanala inbinya guwi
titirrp nga=rna=la yinpinya kuwi-Ø
unsuccessful CAT=1SG.S=3SG.OBL spear.PST meat-DAT

didirrb mananala
titirrp ma-na=rna=la
unsuccessful get-PST=1SG.S=3SG.OBL
‘In vain I speared the game. I missed it.’ (McK:125)

Mangarla does not reflect any semantic contrast between the ‘obtain-goal’ and the ‘effect-conative’ types in its morphosyntax, unlike Warlpiri in which the dative complements of the latter have double registration in the BP complex. Unlike Warlpiri which has a special 3DAT clitic, *=jinta*, for such purposes (Hale 1982, Laughren 1988, Simpson 1991), Mangarla has no such capacity. Thus, while the semantics of such constructions are identical in the two languages, in Mangarla, the dative alternatives are treated in the same way as other oblique arguments of semitransitive verbs, with local cases sometimes used in preference to the dative and both subtypes registered with a single oblique clitic.

verb	**[ERG ABS]**	**[ERG DAT]**	**[ERG LOC]**
lajun	‘dig’	‘dig for’	
mil-kanga	‘see’		‘look at’
pina-man	‘hear/understand’		‘listen to/hear about’
ningarra-kan	‘believe (thing)		‘believe of/in person’
pirti-man	‘create, make’		‘work on, decorate’
jinyan	‘make by carving’	‘trim’	
wira	‘impact, grind’	‘rub at’	
martanga	‘build for protection’	‘put cover on’	
yinpunga	‘spear’	‘attempt unsuccessfully to spear’	
kurnan	‘ingest’	‘partially eat’	

Alternative types are shown below with the a) sentences expressing regular transitive [ERG ABS] selection and the b) sentences showing the same verbs with a semitransitive [ERG OBL] case frame.

11.53 *a) mai na ladyun mungalin*
mayi=rna=Ø laju-n mungkaliny-Ø
veg.food=1SG.S=3SG.O dig-PRES bush.potatoes-ABS
'I dig the potatoes.' (McK:88)

b) ladyurala ñapa gu
laju-rra=la ngapa-ku
dig-IMP=3SG.OBL water-DAT
'Dig for water.' (McK:162)

11.54 *a) mangkaja-Ø nga=ni=Ø-ya marta-ngarrinya*
shelter-ABS CAT=3PL.S=3SG.O-EP cover-AUX-NARPST
'They used to build a bush shelter.' (1R116)

b) winy winy dyu ñandyurrunga madaññña
winy~winy-ju nga=Ø=nyjurrungka marta-nga
fog~RDP-ERG CAT=3SG.S=1PL.IN.OBL cover-PRES
'The fog covers us.' (McK:66)

11.55 *a) jurarr-Ø=rna=Ø mil-ka-nya*
sea-ABS=1SG.S=3SG.O eye-AUX-PST
'I saw the sea.' (2sen147)

b) ngapa-ngka=ni mil-ka-nga
water-LOC=3PL.S eye-AUX-PRES
'They are looking at/into the water.' (PSh105)

11.3.7 Ditransitives double object verbs [ERG ABS ABS]

Ditransitive verbs select a subject in ergative case and two non-subject arguments, only one of which is registered in the BP complex. While many transitive verbs optionally select a second non-subject argument in dative or local cases (§11.3.8), there are only a few verbs which obligatorily select three arguments. Two mean 'give': *yunga* and *yita-*

kanga. Another is *jurrungkul-man* 'show'. While they can also select an oblique with the role of recipient/goal, these are the only ones found in a double object construction with both non-subject arguments in the absolutive. In this array, the second object is an unregistered theme and the recipient is cross-referenced by the object clitic, including the reciprocal (11.58). Few examples contain all three NPs, even fewer with theme arguments other than 3SG, which makes it difficult to show that it is not expressed as *=Ø* as opposed to being ineligible for registration. However, in (11.57-58) non-singular secondary objects remain unregistered.

11.56 *wai nana idaganya nyundu mai ñunudu dyu*
wayi=na=na yita-ka-nya nyuntu-Ø mayi-Ø ngunurtu-ju
Q=3SG.S=2SG.O give-AUX-PST you.SG.ABS veg.food-ABS sister-ERG
'Did Sister give you food?' (McK:19)

11.57 *yu-wa=nya ngayu-Ø pantu-arra-Ø panjurn-Ø*
give-IMP=1SG.O I-ABS MED-DU-ABS wood-ABS
'Give me those two sticks.' (H10)

11.58 *yu-ngarrinya=pala=rna kuwi-Ø ngarlka-Ø*
give-NARPST=3DU.S=RR meat-ABS desert.walnut-ABS
'The two would give meat and nuts to each other.' (1J85)

11.59 *gui dyurungul nanya manarinya*
kuwi-Ø jurrungkul=na=nya ma-narrinya
meat-ABS show=3SG.S=1SG.O AUX-NARPST
'He showed me how to kill game.' (McK:PS14)

11.3.8 Ditransitive oblique verbs [ERG ABS DAT/LOCAL]

Oblique complements of ditransitive oblique verbs can be optional or obligatory. Optional obliques can be added to many transitive verbs (§11.3.5). The verbs described as double-object ditransitives in §11.3.7 can also express the theme as direct object and the required goal as oblique.

The case of the oblique for verbs meaning 'give' varies. In (11.60) the recipient is an unmarked dative while in (11.61) it is a locative, each registered by an oblique BP.

Referring to recipients of these verbs, McKelson (1974:9), reports 'the dative is regarded as a locative'.

11.60 *mangarri-Ø=rninya* *yu-ngarri paniyarti-Ø* *ngayu-ngku*
veg.food-ABS=1SG.S>3PL.OBL give-IPFV they-DAT I-ERG
'I am giving bread to them.' (93sen10)

11.61 *nyunduñgu n ñala* *wuluñga* *gali* *ida ganya*
nyuntu-ngku=n-nga=la *wulu-ngka* *karli* *yita-ka-nya*
you.SG-ERG=2SG.S-EP=3SG.OBL father-LOC boomerang give-AUX-PST
'Did you give the boomerang to father?' (McK:20)

In both corpora, third person recipients are almost exclusively expressed in oblique rather than double object constructions, which seems to be unavailable to them, as it is in Nyangumarta, where 3SG recipients are in the locative (Sharp 2004:341 - see also footnote 22). Some examples from Jarlmadangah even use the oblique2 clitic for 3PL referents (=*inyala* 'to them').[40] The use of an oblique recipient for all persons is possibly considered more polite in imperative constructions and indirect requests in the future tense (11.62), although this remains unconfirmed. One informant also offered the explanation that the locative was used in preference to the dative for recipients by the *panpartupanpartu* dialect.

11.62 *yala=lpiny nga=ja=n* *yu-ngku* *pantu pulawa-Ø*
DIST-first CAT=1SG.OBL=2SG.S give-FUT MED flour(E)-ABS
'You can give me that flour over there first.' (HTD54)

The two verbs meaning 'give' can also express the recipient in the genitive (11.63). This can optionally be registered in the BP complex (11.64) but is ambiguous as an oblique possessive (§10.4.4) or benefactive (§11.4.2).

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[40] The reason for this is not known but may be due to interference from Walmajarri where all locative obliques (accessories) employ an augmented clitic to differentiate them from absolutive/dative arguments (Hudson 1978). The variation in the registration of Mangarla's 3PL non-subject arguments is examined in §6.1.1.3-§6.1.1.4.

11.63 *ngayu-ngku=rna yita-ka-nya kuwi pani-kura*
I-ERG=1SG.S give-AUX-PST meat s/he-GEN
'I gave him meat.' (H11)

11.64 *Jesus dyu na inya ida ganya wibidi mai banu gurra*
Jesus-ju=na=yinya yita-ka-nya wipirti mayi panu-kura
name-ERG=3SG.S=3PL.OBL give-AUX-PST small veg.food many-GEN
'Jesus gave them the little food there was, for the lot.' (McK:RT)

The other double object verb, *jurrungkul-man* 'show', can also select a locative 'goal' in place of the absolutive in a double object construction (*cf.* 11.59).

11.65 *nga=nyurru=ja jurrungkul-ma-na ngayu-ngka*
CAT=2PL.S=1SG.OBL show-AUX-PST I-LOC
'You lot showed it to me.' (Nya85alt)

Many transitive verbs can select an optional oblique argument. A dative NP is usually selected for an argument which is the target of an activity including that selected by **verbs of communication**:

> *ngurrjan* 'talk about', *marran* 'say/tell', *rurrpja-kan* 'reply', *jangku-man* 'answer', *yinpa* 'sing', *ngarntin* 'solicit'

The next two examples are given in pairs to show the optional nature of the oblique.

11.66 *a) panataru=ni=Ø ngurrja-narri juju-Ø*
MED.ERG=3PL.S=3SG.O talk.about-IPFV song-ABS
'They are discussing the song.' (93sen50)

b) ngayu-ngku=rna=ngka ngurrja-n mininy nyuntu-Ø
I-ERG=1SG.S=2SG.OBL talk.about-PRES language you.SG-DAT
'I am telling you a story.' (93sen38)

11.67 *a) warrimpa=n=Ø nyuntu-ngku jarni-karra-rtiny marra-nku*
by&by=2SG.S=3SG.O you.SG-ERG how.MAN=ASSERT say-FUT
'Soon you will say how it is.' (2D60)

b) aa nyaltu panjurn nga=na=ja marra-na purrku-ngku nguju
aah PROX wood CAT=3SG.S=1SG.OBL say-PST old.man-ERG REC
'Oh, this is the tree that old man told me about before.' (HTS93)

Some select the locative case, as seen in (11.6711.68).

11.68 *wanyju-ngka ngarrungu-ja nga=na=la ngarnti-ninya kunyarr*
one-LOC person-LOC CAT=3SG.S=3SG.OBL solicit-NARPST dog
'He asked one man for a dog.' (Ngi20alt)

Verbs of physical transfer constitute the largest group which optionally select oblique arguments in local cases:

w*irrjanga* 'put on/in' [ERG ABS LOC], *jurran* 'pour over' [ERG ABS LOC], *ral-punga* 'pluck' [ERG ABS LOC], *paj-jun* 'strip' [ERG ABS LOC], *karrpun* 'tie on/to' [ERG ABS LOC], *parrpun* 'glue to' [ERG ABS LOC], *kanga* 'take to/from' [ERG ABS ALL/ABL], *ngunyi-man* 'send to' [ERG ABS ALL], *yarrkan* 'throw to/at' [ERG ABS ALL], *yinjil-man* 'release, remove from' [ERG ABS ABL], *man* 'take from' [ERG ABS ABL], *kitarr-man/kan* [ERG ABS ABL] 'pull from'

Inanimate targets and simple locations are mostly unregistered (11.69) in the BP complex. However, human and some other affected locations are registered as obliques. Animacy is not a requirement for registration of an affected location.

11.69 *ñura ñu nyalara ñu ganyana garbina nyaladu gadi*
ngurra-ngu nyalaru-ngu ka-nya=na=Ø karrpirna nyalartu-karti
camp-ABL PROX-ABL take-PST=3SG.S=3SG.O shield PROX-ALL
'He took the shield from the camp to here.' (McK:51)

11.70 *ganyañala wulu gadi gali*
ka-nya=n-nga=la wulu-karti karli?
take-PST=2SG.S-EP=3SG.OBL father-ALL boomerang
'Did you carry the boomerang to father?' (McK:130)

11.71 *jut~jut-pu-ngku=rna=la warlu-ngka*
sprinkle~RDP-AUX-FUT=1SG.S=3SG.OBL fire-LOC
'I will sprinkle it (flour) on the fire.' (HTD34alt)

11.72 *burany ba nga* *mulnyi* *walu nga*
purrany-pa=ngka *mulnyi* *walu-ngka*
wipe.off-AUX.IMP=2SG.OBL soil face-LOC
'Wipe the dirt from your face!' (McK:135)

11.73 *paju-rra=la* *nyalara-ja*
strip.AUX-IMP=3SG.OBL PROX.LOC-LOC
'Strip it (the bark) off this one.' (HTS109)

11.3.9 Variation

Many verbs do not fit neatly into a single syntactic category. Previous sections illustrate the ability of certain verbs to vary their basic argument structure, and vary the case they assign to an argument. I show in §11.3.4 and §11.3.8 how primarily intransitive and transitive verbs respectively can optionally select an oblique argument, increasing valency and in §11.3.6, how some simple transitive verbs have a second subcategorisation as semitransitives that select an oblique argument rather than a direct object. I also show in those sections how the case assigned to an oblique NP can vary. In this section, I focus on case-assignment to subjects which can also vary.

11.3.9.1 Ambitransitive verbs

Some verbs are ambitransitive, subcategorised in multiple categories, or at least used with different case-frames in different contexts. One verb which moves easily between the full range of transitive classifications is *mininy-punga* 'speak'. Used intransitively in (11.74), it also occurs as semitransitive (11.75), or transitive with an object, such as a language name, or type of utterance like 'story', 'lies' *etc.* (11.76). Potentially, this may take an optional oblique argument making it ditransitive, like other verbs of locution (§11.3.8).

11.74 *ngaliyarra-Ø=la* *mininy-pu-ngarri*
you&I-ABS=1DU.IN.S language-AUX-IPFV
'You and me are talking.' (2sen135)

11.75 *mininy-pu-ngku=rna* *tija-ngka* *ngayu-ngku*
language-AUX-FUT=1SG.S teacher(E)-LOC I-ERG
'I will talk to the teacher.' (93sen56)

11.76 *wakaj-kuyarra-ju nganarni-ju Mangarla nga=ngarni*
complete-all-ERG we.all.EX-ERG Mangarla CAT=1PL.EX.S

mininy-pu-nga
language-AUX-PRES
'We all speak Mangarla.' (1D31)

The labile nature of the transitivity of verbs of sound emission in Australian languages is noted by other researchers (*e.g.* Tsunoda 1981:108, Hale 1982:246, Meakins and Nordlinger 2014:368). In many languages, these verbs occur with a cognate object (Austin 1982), which in Mangarla, has been incorporated into the verb as a preverb.

Another regionally common ambitransitive verb type involves cooking or burning. In Mangarla, one verb, *paya-punga* 'burn', occurs mainly as intransitive but has been found as a transitive [ERG ABS] verb, as has the more common *yarrkal-punga* 'go hunting', which is also used both intransitively (11.77) and as a simple transitive (11.78).

11.77 *yarrkal~yarrkal-pu-ngarrinya=pala panartarra-Ø*
hunting~RDP-AUX-NARPST=3DU.S MED.DU-ABS
'Those two went hunting.' (Nya48)

11.78 *yarrkal-pu-ngarrinya=na wulu-ngku kuwi-Ø, arlipala*
hunting-AUX-NARPST=3SG.S father-ERG meat-ABS early.fella(K)
'Father would go hunting meat early.' (1J78)

Some verbs which occur mostly as semitransitive are on occasions found as intransitives. These include *ngaja* 'cry', which is semitransitive [ERG DAT] in (11.79) but intransitive [ABS] in (11.80).

11.79 *pani-ngku=palangka wulu-pa kampaja ngaja-nyarrinya*
s/he-ERG=3DU.OBL father-and mother cry-NARPST

nganiji-ju, Kinyakarrartu
whatsaname-ERG personal.name
'She was crying for her mother and father, whatsaname was, Patsy.' (1M58)

11.80 *ngantangka nga=na ngaja kartu-Ø*
what.SRC CAT=3SG.S cry.PRES child-ABS
'Why is the child crying?' (2sen114)

11.3.9.2 Optional ergativity

Some verbs are not consistent in their use as ambitransitive verbs, and the line between extended intransitive (§11.3.4) and semitransitive (§11.3.4) categories is blurred by optional ergativity (McGregor and Verstraete 2010). With optional ergativity, ergative case is sometimes omitted where expected (§9.2.3 *e.g.* from syntactically unambiguous personal pronouns - §5.1, §6.2.1) or marked where unexpected, such as on the subject of an extended intransitive verb. In Nyikina too, the equivalent of the ergative, the active suffix, can be omitted from the subject of a transitive verb when control/intent is absent and may be used on an intransitive verb if another entity is involved, such as the source/goal of an emotion, or if intention/control is present (Stokes 1982:128-135).

In Mangarla, this also occurs in a context which is higher in transitivity (McGregor 2010:1620, Hopper and Thompson 1980:284), when an extra participant is added to a simple intransitive verb, and the subject, usually human, exercises volition or an emotional response. Because the additional participant is often human as well, disambiguation of roles may also be a motivating factor in the use of the ergative in this context (McGregor 2010:1618). Without the ergative marker, the free inchoative, an archetypical intransitive in (11.81) may be incorrectly interpreted as 'I am a girl'. Copula verbs with a dative complement are described in §12.1.

11.81 *ngayu-ngku nga=rna jarri manga-Ø*
I-ERG CAT=1SG.S INCH.PRES girl-DAT
'I want a girl.' (1P55)

The case of the subject of the extended intransitive verb *kurntin* 'enter' (11.82-83) is also affected by context. In (11.84), it has a novel use as a simple transitive verb with a direct object. Again, the ergative is used not merely because the location is human, as it is in (11.83) where it is registered by an oblique clitic, but because of the greater agency of the subject and its more serious effect on the object.

11.82 *wilga ñana gundinari bidi nga*
wirlka-Ø nga=na kurnti-narri pirti-ngka
goanna-ABS CAT=3SG.S enter-PRES hole -LOC
'The sand goanna goes into the hole.' (McK:62)

11.83 *mil da nadya gundina dyirmil*
mil-ta=na=ja kurnti-na jirrmil
eye-LOC=3SG.S=1SG.OBL enter-PST sweat
'The sweat gets (*sic*.) in my eye.' (McK:143)

11.84 *ñaba ŋgu gundinanagulu*
ngapa-ngku kurnti=na=na=kulu
water-ERG enter.IMP=3SG.S=2SG.O=ANTIC
'The water can go into you (*i.e.* you might drown).' (McK:163)

In (11.85), the ergative may also have a discourse function to focus attention on the first mention of any interaction with the law.

11.85 *pulijiman-tu=ngarningka purta-nya, panara-ja, yalinja-ngu wurna*
policeman-ERG=1PLEX.OBL come-PST MED-LOC north-ABL move.off
'A policeman approached us there walking from the north.' (1P30)

The optional use of the ergative is the probable origin of the semitransitive category, the members of which are often ambitransitive, (*e.g*. *ngaja* 'cry' (11.79) and *mininy-punga* 'speak' (11.75)). These always mark their subjects ergative when selecting a non-subject argument.

However, other verbs are less consistent case-assigners. *Yaji-punga* 'wait' is exclusively given in the Jarlmadangah corpus as semitransitive but is found in McKelson (1974) with an absolutive subject at times, both without and with an oblique argument as an extended intransitive [ABS DAT/LOC], as it is in related languages such as Warlpiri (Hale 1982:227). The increasing use of the ergative in this intermediate category may also be influenced by the loss of overt dative-marking in Mangarla (§4.3.3.1).

Case assignment in Mangarla is shown to not be purely lexical, and is influenced by pragmatics and syntax as well as semantics, allowing speakers to alter the case frame of

a verb when the context requires it, as in the ability to use any of the three spatial cases on obliques according to the context. This option is not available to Walmajarri speakers who only use the locative ('accessory case') and interpret any directional component pragmatically (Hudson 1978:22). In Mangarla, many verbs appear to move freely between categories of transitivity and, within semantic constraints, take additional arguments or occur without an expected object (§11.3.9.3). This is in stark contrast to previous analyses which claim that verbs in Australian languages are relatively fixed in their transitivity (Dixon 1980:278). The repercussions include an expanded lexicon, open to potentially novel uses of verbs that have a semantic scope broad enough to allow new context dependent meanings.

11.3.9.3 Object suppression

As explained in §11.1, null anaphora is common in Mangarla and person and number features encoded in BPs enable the proper interpretation of most missing arguments. However, the degree of recoverability of third person referents varies considerably, particularly those in object function registered by *=Ø*. Those referring to entities established in previous discourse are relatively easy to identify pragmatically. However, many verbs which assign ergative case to their subjects often appear to lack non-subject arguments completely.

The pairs of examples below contrast the use of null anaphora with object suppression as they apply to transitive (11.86) and ditransitive (with optional oblique (11.87) and double object (11.88)) verbs. The referents of the null anaphors in the a) clauses, which come mostly from narrative texts, are translated as definite (specified in brackets) and easily recovered from prior events. However, the b) clauses are independent utterances or given early in texts before a referent is established and are translated with no referential non-subject argument.

11.86 *a) nga=na=Ø* *kurna-n* *wanyju-ngku*
CAT=3SG.S=3SG.O ingest-PRES one-ERG
'One of them is eating it (*fish*).' (PSh131)

b) pani-ngku=lpirtiny *nga=na* *kurna-nku*
s/he-ERG=first CAT=3SG.S ingest-FUT
'She will eat first.' (PSh127)

11.87 *a) ngijakura-aru marra-ninya=ni=ja pantu-Ø*
I.GEN-PL.ERG say-NARPST=3PL.S=1SG.OBL MED-ABS
'My relations told me that (*story*).' (FKNgi46)

b) marra-nku=la=rnangka ngaliyarra-ju
say-FUT=1PL.IN.S=RROBL you&I-ERG
'Let's talk to each other.' (G50)

11.88 *a) ngayu-ngku=rna=Ø mininy yu-nga*
I-ERG=1SG.S=3SG.O language give-PRES
'I am giving her (*sister-in-law*) language.' (G153b)

b) milginya yuñarina
mil-ki=nya yu-ngarri=rna
eye-AUX.IMP=1SG.O give-IPFV=1SG.S
'Look at me. Watch me I am giving it now.' (McK:127)

Like the English implicit object verbs, such as 'eat', 'drink', 'tell' *etc*., the verbs in sentences of this type contain implicit or unspecified complements, which may or may not be indefinite (*cf.* Fillmore 1986). The missing arguments are often constant, implied by the semantics of the verb. Verbs of locution, performance, cooking and ingestion and those describing bodily functions, among others, often select complements from semantically restricted sets of lexemes (Hale 1982:237-240, Austin 1982). These can be expressed by generic nouns (*e.g.* 'say *words'*, 'sing *songs/ceremonies*', 'eat or cook *meat/vegetables'*, 'hear *sounds/speech*'). In Warlpiri, speakers prefer to use such terms rather than omit them (Hale 1982:238). However, in Mangarla, they generally remain implicit, although a speaker will sometimes add a generic noun as an afterthought (11.89-90), which is broken off from the clause (shown by a comma) and which expands or repeats the utterance. In (11.90), the speaker describes two pictures in a sequence, more precisely defining the referent of the object NP as she goes. In a later clause not given here, she identifies the 'meats' in the second illustration as crocodiles and even later, decides that they are goannas.

11.89 *kawurtu nyaltu=rna marran, mininy*
finish PROX=1SG.S say-PRES language
'That's all I am saying, this story.' (1M99)

11.90 *ngayi, nyalartu jani-ma-n ngurra-ngka marnin-tu wanyju,*
yes PROX cook-AUX-PRES camp-LOC woman-ERG one

wanyju-ngku marnin, jani-ma-narri=yinyala,
one-ERG woman cook-AUX-IPFV=3PL.OBL2

nyalartu kuwi-yarti, kuwi=na jani-ma-n
PROX meat-PL meat=3SG.S cook-AUX-PRES
'Yes, here, one woman is cooking in camp. One woman, she's cooking for them. Here are animals. She's cooking meat.' (PSh148-150)

Not all verbs which suppress a non-subject argument select it from a semantically limited range. Many are simply left unspecified (11.91-94) or inferred contextually (11.88b).

11.91 *warrimba na waringu*
warrimpa=rna warri-nku
by&by=1SG.S seek-FUT
'Bye and bye (*sic*) I will look around (*for something/someone)*.' (McK:142)

11.92 *panataru nga=ni-ya yajinga*
MED.PL.ERG CAT=3PL.S-EP wait-PRES
'That lot are waiting (*for something/someone)*.' (G5)

Some may refer to the general environment.

11.93 *gui ngu na milganya*
kuwi-ngku=na mil-ka-nya
meat-ERG=3SG.S eye-AUX-PST
'The game looks *(at the environment/for something)*.' (McK:153)

11.94 *ñulu ñulu dyu ñana inbuña*
ngulu~ngulu-ju nga=na yinpunga
sun~RDP-ERG CAT=3SG.S spear-AUX-PRES
'The sun is shining.' (McK:118)
(*lit.* 'The sun spears (*everyone/the camp/the earth*).')

Glass (2014) proposes that, for English, the degree of recoverability of implicit objects varies greatly and is influenced by social factors, particularly the goals of the interlocutors and their routine usage of a particular verb in a defined context. An object is more likely to be elided when the referent is highly predictable, or paradoxically, not pragmatically significant. High predictability occurs when the referent is topical, as in (11.86a-87a), and in iterations of an event, or when semantic information is provided by the verb (11.86b-87b). The regular or specialised use of a verb can make its complement predictable in one community but not in others. One such example from Mangarla may be 'spear' when used in relation to the sun (11.94) or the verb *kanyin*, which appears to convey repetitive movements translated as 'knead' when cooking damper, 'deflect' when dodging weapons but means 'dance' with an implicit object.

11.95 *dyibiyaru* *ñaniyi* *ganyinari*
jipi-yaru *nga=ni-ya* *kanyi-narri*
man-PL.ERG CAT=3PL.S-EP dance-IPFV
'The men are dancing (*ceremony*).' (McK:146)

When it is not pragmatically significant or its expression is not required to achieve the interlocutors' purpose, a referent may be unspecified. Low need can arise in narratives where an incidental event is relayed, as in (11.93) which serves to build suspense around whether or not the hunter in the narrative will be successful, or when pictures containing little detail are guiding the storyline (11.90), and when an activity is being emphasised, participants can be backgrounded, as in elicitations of verbal paradigms (11.91-92).

11.3.9.4 Effects of person and number on argument structure

It is not uncommon for person/number to impact on the syntactic treatment of of non-subject arguments. In §6.1.1.3, I describe how many 3PL non-subject arguments are registered by clitics from a different series to those which register other persons, and in §11.3.8, how third person recipients selected by the verbs meaning 'give' are treated differently from those of other persons.

The verb *wanyjan* 'leave' also consistently registers a 3PL unmarked (?dative) argument with the oblique clitic, but uses an object clitic for the unmarked (absolutive) argument of all other persons/numbers.

11.96 *wanyja-na kartu-Ø nga=na=**nya** wanyja-na*
leave-PST child-ABS CAT=3SG.S=**1SG.O** leave-PST
'He left me when I was a child, left.' (1R89)

11.97 *wandyanana inya wandyirardi murungurardi*
*wanyja-na=rna=**inya** wanyjirrarti murungkurr-arti-Ø*
leave-PST=1SG.S=**3PL.OBL** other.PL spirit.child-PL-?DAT
'I left all the other spirit children.' (McK:96)

The lack of overt case marking on the NPs in these circumstances makes it uncertain if this phenomenon is related to the argument structure of individual verbs or to changes occurring in the use of the 3PL non-subject clitics (§6.1.1.3).

11.4 Non-selected arguments

11.4.1 Introduction

This section examines oblique arguments which can be optionally added to many clauses regardless of the underlying subcategorisation of the verb, increasing the number of arguments in a clause by one, thus allowing as many as four to occur in a clause. When expressed as NPs, these additional arguments are in the dative or genitive and are registered by oblique or oblique2 BPs.

Cross-linguistically, non-selected participants are entities which are external to the event described by the verb. Non-selected datives function like subcategorising datives in signalling an indirect relation between the marked entity and either the event, or a core participant, denoting entities that are indirectly, partially, or potentially affected. Their thematic roles commonly include beneficiary, maleficiary, possessor, recipient, affected experiencer, target of an action, attitude holder, *etc*. (Pylkkänen 2008, Boneh and Nash 2012, Bosse *et al.* 2012).

Because they can be added to almost any clause, with a wide variety of predicates, they are generally considered not semantically selected. In Australian languages, they are variously analysed as adjuncts (Hale 1982, Meakins and Nordlinger 2014) or as

arguments (Tsunoda 1981, Sharp 2004).[41] Simpson (1991:396-400) shows how, in Warlpiri, some subcategorise verbs or preverbs, while most have the status of 'external objects', a term used to reflect their argument-like characteristics while acknowledging their semantic independence from the predicate.

In the absence of syntactic tests such as passivisation, valency changing constructions, controlled subordination or word order constraints, determining the grammatical function of dative NPs is not easy (also noted by Gaby (2006:443) for Kuuk Thaayorre). Like adjuncts, they can occur with a wide range of predicates with a predictable meaning. However, dative NPs do not function as adjuncts in Mangarla, which employs an expanded repertoire of cases for roles commonly performed by dative adjuncts in related languages, such as purpose or cause. There are several reasons to consider the types under discussion as arguments in Mangarla. They are treated syntactically as arguments, in the same way as subcategorising oblique arguments; they are registered in the BP complex, displacing other potential candidates for the non-subject slot and feeding reflexive/reciprocal constructions when coreferent with the subject of the clause.

Determining how they are introduced into the clause is beyond the scope of this work and accounts vary widely. Constructivist approaches propose the introduction of a functional head, such as an applicative or affectee, that licenses the additional argument (*e.g.* Pylkkänen 2008, Boneh and Nash 2012, Bosse *et al*. 2012). In Warlpiri, Simpson (1991:383) proposes that for non-subcategorising external objects, the dative case functions as an argument-taking predicate, introducing the new 'object' and taking the main event (or one of its participants) as its subject.

In Mangarla, non-selected NP arguments occur in the genitive as well as the dative. Three types occur. Oblique possessive constructions (OPC) mark possessors in the genitive, indirectly involved in the event through their relationship to a main participant. They are examined in detail in §10.4.4 and only referred to in this section in a general way and only where relevant. Maleficiaries and beneficiaries are primarily in the dative (§11.4.2), while associated entities (§11.4.3) can be in either case. These are entities in a

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[41] In Martuthunira, which lacks a dative, benefactives/malefactives are accusative arguments (Dench 1995:68-69).

characteristic association with a core participant, frequently relating to its future use or the purpose of the event.

These three constructions overlap in both form and semantics making them often difficult to differentiate. With the non-selected argument NP commonly elided, the external participant is generally only indexed by a BP, often *=la,* the third person singular or number-unspecified form. This makes interpreting a sentence such as (11.98), without context, a difficult tasks for the researcher. The intended interpretation is a simple ditransitive clause of transfer as given in the first translation. Other possible translations are given below, although speakers would could add NPs to disambiguate these as required.

11.98 *kuwi=na=la* *ma-n*
meat=3SG.S=3SG.OBL get-PRES
'She gets fish off her.' /(?also 'from it (*e.g.* fire/hole).' (*source*) (PSh126)
'She gets meat for him.' (*beneficiary*)
'She gets his meat.' (*oblique possessive*)
'She gets meat for doing something.' (*purpose/association*)

Even with a genitive NP, the final three interpretations would remain available. Possessive NPs frequently have a benefactive/malefactive implicature and at least one speaker employs the genitive to express benefactives. However, in §10.4.4 I showed that a benefactive reading is not appropriate for all oblique possessive constructions, which can, unlike benefactives, occur as an element within a subject NP. Similarly, not every benefactive construction involves (potential) possession, even though possession quite often entails benefit or loss. Associated entities are semantically distinct from both beneficiaries and possessors.

It appears that no single semantic or syntactic rule in isolation can account for the assignment of a participant role to external participants, and perhaps more than one criterion is required to determine the argument structures which include them. They can be added in isolation or as part of a complex argument of the main clause. This is most clearly seen with oblique possessive constructions where both elements are registered by separate clitics (§10.4.4), or where an external argument itself is complex, and would be

registered by an oblique2 clitic. This might involve an associated entity intended to benefit someone (*e.g.* 'do X [to obtain Y for Z]', 'bring X [for Y to use on Z]')

11.4.2 Adding a beneficiary/maleficiary

The next examples show transitive verbs with beneficiaries in the dative. In (11.101) the 1SG.OBL clitic identifies the beneficiary as coreferent with the subject.

11.99 *nga=yinyala kartiyarti-Ø muku-narru*
CAT=3PL.OBL child.PL-DAT club.AUX-FUTIPFV
'He will kill (meat) for the children.' (HTG177)

11.100 *marala bani gu*
ma-rra=la pani-ku
get-IMP=3SG.OBL s/he-DAT
'Get it for him. (McK:21)

11.101 *ngayu-ngku=rna=ja ka-ngarrinya ngapa*
I-ERG=1SG.S=1SG.OBL carry-NARPST water
'I carried water for myself.' (1J113)

A maleficiary occurs in (11.102). The surface form of the malefactive in (11.103) is identical with one of affected location (§11.3.8), although a case marked NP might dispel any ambiguity, with the dative expected in the former and a locative in the latter. Either way, the referent of the oblique clitic is adversely affected.

11.102 *rawal du ñandyurrunga gui wira*
rawal-tu nga=nyjurrungka kuwi wira
blowfly-ERG CAT=1PL.IN.OBL meat shoot.PRES
'The blowfly struck the meat.' (McK:79)
(*lit.* 'The blowfly strikes the meat to our detriment.')

11.103 *panjurn nga=na=ja pungka-nya*
wood CAT=3SG.S=1SG.OBL fall-PST
'Unfortunately for me, the thing fell down.' (*malefactive*) (H33)
'My thing fell down.' (*OPC*)
'The tree fell on me.' (*affected location*) (McK:18)

In (11.104-106), two oblique arguments are signalled in the BP complex by the OBL2 clitic which registers the person and number of the beneficiary and the presence of another oblique argument (§6.1.1.4); in (11.104) this is the dative accessory *kuwi*; in (11.105) it is the optional oblique location *kajungka* alternatively *jamayinaja*, both meaning 'on the axe' and in (11.106) it is the selected dative oblique *pantarti panjurnarti*.

11.104 *nga=na=rnangkala kapa-nku kuwi-Ø*
CAT=3SG.S=RROBL2 sit-FUT meat-DAT
'He will come and sit down with meat for himself.' (HTG175alt)

11.105 *buna wirdyabadyala gadyunga (damayinadya)*
purna wirrja-pa=jala kaju-ngka /(jamayina-ja)
handle put-AUX.IMP=1SG.OBL2 steel.axe-LOC /(axe-LOC)
'Put the handle on the axe for me.' (McK:105)

11.106 *yina-nku=rna=ngkala pantu-arti-Ø panjurn-arti-Ø*
say.name-FUT=1SG.S=2SG.OBL2 MED-PL-DAT wood-PL-DAT
'I will say the name of those trees for you.' (HTS46)

As an alternative to the dative, some speakers use the genitive with a benefactive/malefactive interpretation. Sentence (11.107) was elicited from two different speakers; only one included the genitive pronoun while the other took the more common course and elided the beneficiary NP, present in most of the previous examples.

11.107 *jani-ma-nku=ja=n-nga (ngijakura) mangarri*
cook-AUX-FUT=1SG.OBL=2SG.S-EP (I.GEN) veg.food
'Will you cook damper for me.' (A6/(G9))

Other clauses containing a genitive NP have an implied benefactive/malefactive meaning. A genitive NP can mark the recipient of ditransitive verbs meaning 'give', also with a benefactive sense (§11.3.7) and many oblique possessive clauses convey an implied benefactive/malefactive sense (§10.4.4). As benefit and adversity frequently come about through possession or potential possession, and loss, it can be difficult to differentiate benefactives/malefactives from oblique possesssives. This is shown in (11.108-110) and is examined in detail in §10.4.4. Any attempts to elicit both a possessive and a benefactive with different referents failed, as if separating the two was inconsistent (11.110).

11.108 *warrkam-pu-ninya* *nga=ni-ya=la* *wayitpal-kura*
work(K)-AUX-NARPST CAT=3PL.S-EP=3SG.OBL whitefella(E)-GEN
'They were working for whitefellas.' (*benefactive*) (Ngi6alt)
'They were doing whitefellas' work.' (*oblique possessive*)

11.109 *ṉundu nala* *yagur dyarinya*
nguntu=na=la *yakurr-jarrinya*
urine=3SG.S=3SG.OBL no.good-INCH-PST
'He has stopped urinating.' (McK:151)
'The piss has become bad on him.' (*malefactive*)
'His piss has gone bad.' (*oblique possessive*)

11.110 *jani-ma-nku=rna=la* *pantu kuwi pani-kura*
cook-AUX-FUT=1SG.S=3SG.OBL MED meat s/he-GEN
'Can I cook <u>your</u> meat for him.' (attempted elicitation) (2sen43)
(*lit.* 'Can I cook <u>that</u> meat of his/for him.')

In neighbouring Karajarri, a suffix homophonous with the Mangarla genitive is used for possessive, benefactive and purposive constructions (Burgman 2005b). This may influence bilingual Mangarla speakers who also use the genitive suffix to mark beneficiaries and participants characteristically associated with another (§9.5.2).

11.4.3 Associated participants

A non-selected participant in dative or genitive case, which is associated with the intended use of another selected entity, can be registered as an oblique argument. A characteristic relationship between two NPs within a simple clause indicates that the action is performed with an intention to use one in connection with the other. These non-selected arguments have a similar function to nominals carrying the purposive suffix. However, purposives are adjuncts and are not registered in the BP complex. Like beneficiaries, associated participants are indirectly involved in the event as an intended target for a main clause participant and registered by an oblique BP.

11.111 *ngulartu laju-na=rna=la* *pirti-Ø* *panartu-Ø*
finish dig-PST=1SG.S=3SG.OBL hole-ABS MED-DAT
'Alright. I dug a hole for (cooking) that one.' (HTD80)

In the next two examples, the OBL2 clitic is used to signal the presence of two oblique arguments; (11.112) contains a beneficiary and the associated participant *warlu*, while in (11.113), an accessory and the intended target have the same reference. This can be compared to (11.114) which simply registers an accessory in an extended intransitive clause (§11.3.4).

11.112 *muri muri kawanidyala walu*
muri~muri-Ø ka-wa=rni=jala warlu-Ø
log~RDP-ABS carry-IMP=toward=1SG.OBL2 fire-DAT
'Bring me some logs of wood.' (McK:91)
(*lit.* 'Bring logs here to me for the fire.')

11.113 *nga=ni=ngarningkala nganarni-Ø nguwi-na.*
CAT=3PL.S=1PL.EX.OBL2 we.all.EX-DAT return-PST
'They came back for us.' (1M80alt)
(*lit*. 'They came back to us to pick us up.')

11.114 *nguwi-narrinya=ngarningka*
return-NARPST=1PL.EX.OBL
'He came back to us.' (2J122)

Registration by a BP allows the dative NP to be elided. As explained in the introduction to §11.4, the semantic role of an oblique argument is ambiguous when the NP is elided and only a clitic indicates its presence, as in (11.115). However, the subject's intention to spear prey as it approached the water was explained later in English, making clear that the oblique BP registered a target rather than an accessory or affected location *etc*..

11.115 *ngapa nga=na=la karri-nyarrinya*
water CAT=3SG.S=3SG.OBL stand-NARPST
'He used to stand by water (waiting) for it.' (1P17)

The genitive is also used to signal characteristic associations or functions between entities. Sentences such as (11.116-117) from McKelson (1974) were initially thought to be influenced by Karajarri where *-kura* marks purposives and benefactives in addition to possessives. However, the sentence elicited in Karajarri identical to (11.116) employs the dative rather than the genitive (Burgman 2005b:41).

11.116 *wuŋgu ŋanala bidimangu ganaŋandyagura*
wungku nga=rna=la pirti-ma-nku karnanganyja-kura
shelter CAT=1SG.S=3SG.OBL make-AUX-FUT emu-GEN
'I will make a trap for an emu.' (McK:105)
'I will make an emu trap.'

11.117 *ladyurala ŋaba gura, badayi ŋana wandu*
laju-rra=la ngapa-kura partayi nga=na wantu
dig-IMP=3SG.OBL water-GEN clearing CAT=3SG.S be.FUT
'Dig something for water, it will be an irrigation furrow.' (McK:60)
'Dig a water (channel).'

Unlike those with the dative where registration is required, characteristic relationships which employ the genitive behave like possessives constructions. The registration of the associated entity is optional. Sentence (11.118) contrasts with the previous two in not registering the 'possessor'. Optional registration also occurs with true possessives, where OPCs that register the possessor are optional alternatives to regular inalienable possessive constructions in which the possessor is not registered. In both types, the possessor remains a modifier within the possessive NP.

11.118 motor car *gura ŋani milganya margur*
murtika-kura=ngarni mil-ka-nya makurr
car(K)-GEN=1PL.EX.S eye-AUX-PST path
'We saw the road.' (McK:PS55)
'We saw the car track (as opposed to *e.g.* a walking track).'

Mangarla has a dedicated purposive suffix *-pirri* (§4.3.10) which is used in similar contexts. Generally, it tends to focus on the referent as a participant in an unspecified future activity not described by the main verb, while the genitive focusses more on the relationship between the two entities. While the dative-marked entity is always registered and the genitive-marked entity is optionally registered, the purposive-marked entity is not registered.

11.5 Adding further information to simple clauses

Further information about an event can be given in the clause with optional elements. Adjuncts are optional additions to a simple clause to provide information about accessories, instruments or location of the event in time or space or its purpose.

Other optional additions to simple clauses are discussed in other sections. Spatial and temporal locators (§3.2.2), and manner and action nominals (§3.2.3) can provide adverbial information, such as about the manner, purpose or timing of an event. Those functioning as secondary predicates are examined in §12.2. Adjoined relative clauses and reduced subordinate clauses link main clause actions and entities to prior, contemporaneous and subsequent events. They are examined in §13.3.

Particles, clitics and sentence modifiers can provide information about a speaker's attitude or give adverbial and modal information, such as clause negation (§8.6), interrogative (§8.4) and dubitive mood (§8.5).

11.5.1 Adjuncts

Simple NP adjuncts provide contextual information about the main event. They are marked by a range of non-grammatical case suffixes and are never cross-referenced in the BP complex. A few of the more common types are shown here and the reader is referred to §4 for more examples. Adjuncts are commonly located at clause peripheries.

Temporal, locational and directional information (see also §3.2.2, §4.3.4)

11.119 *wulu-ngku ngijakura-ju=na kanti-na panara jurru yalinyja-kurna*
father-ERG I.GEN-ERG=3SG.S hit-PST MED.LOC snake north-wards
'My father killed a snake there towards the north.' (1P60)

11.120 *nyampurr-ju-nku-rna nganiji, kirtily-ja ngapa-ngka*
bathe-AUX-FUT=1SG.S whatsaname cool-LOC water-LOC
'I will bathe in the cool water.' (FK84)

11.121 *wanyjirra-ja yurranyangu purta-nya=ni, kakurtu*
other-LOC morning come-PST=3PL.S finish
'Next morning they came. Alright.' (FKNgi75)

The source of an entity or cause of an event is encoded by the source suffix (§4.3.7).

11.122 *dyaly ñana bayibuña ñaba anga*
jaly nga=na paya-pu-nga ngapa-angka
in.vain CAT=3SG.S burn-AUX-PRES water-SRC
'It splutters ... it can't burn because of water.' (McK:161)

11.123 *ngantu-n ma-na tuwa-yangka*
what=2SG.S get-PST store(E)-SRC
What did you get from the store? (2sen116)

Accessories bearing the comitative suffix (§4.3.9) can be added as adjuncts. Unlike accessories in the dative or locative in extended intransitive constructions (§9.4.3.3), these are never registered as arguments.

11.124 *kampaja-na kapa-narrinya ngarlka-artu*
mother=3SG.S sit-NARPST desert.walnut-COM
'Mother would sit with the nuts.' (1J84)

11.125 *pantarra=pala purta ngayu-yartu* Derby-*karti*
MED.DU=3DU.S come.FUT I-COM placename(E)-ALL
'Those two will come with me to Derby.' (A2)

Instruments and materials used can be added to transitive clauses and marked by a suffix homophonous with the ergative (§4.3.2.2). This can be added directly to the nominal or be preceded by the comitative.

11.126 *yardyunarina ñagarl du*
yarr-ju-narri=rna ngakarl-tu
rub-AUX-IPFV=1SG.S fat-ERG
'I rub myself with fat.' (McK:155)

11.127 *wira-nya=na kurlpirli karli-yartu-ju*
shoot-PST=3SG.S shoulder boomerang-COM-ERG
'He hit him in the shoulder with a boomerang.' (Ngi26)

12 Copula clauses and nominal predicates

Copula verbs are semantically bleached, acting simply as a link to relate information in the nominal predicate to the subject of the clause (§12.1). In most cases, copulas are optional and can be omitted, leaving verbless, or nominal-headed, clauses (§12.2). However, in one copula construction the verb links a dative complement which denotes an object of desire to the subject. In these, the verb is obligatory.

Nominal predicates can occur in copula and verbless clauses (§12.3). They are nominal predicates which themselves select a complement in addition to an absolutive subject.

Nominals can also function as secondary predicates (§12.4). These are are predicated of a core argument attributing to it a property or secondary activity.

12.1 Copula constructions

Most copula constructions contain a copula subject and a copula complement (CC), linked by a copula verb (Dixon 2002b). The subject of the copula clause is identical in all ways to the subject of an intransitive verb taking absolutive case and generally registered by a subject clitic. The CC is a core argument in absolutive, dative, genitive or locative case. Dixon (2002b:7) notes that, cross-linguistically, this is seldom, if ever, cross-referenced by pronominal clitics. However, as will be seen, Mangarla does allow the registration of some of these. Semantically bleached, the verb is optional but allows the expression of a full range of tense and aspect marking not expressed on nominals. It is a linking device relating information provided by the complement to the subject.

Predominantly, two intransitive verbs are used as copulas: *wanti* 'stay/be/reside' and the independent inchoative, *jarri* 'become, transition'. Stance verbs are also common as copulas. In Mangarla, *kapa* 'sit down/come home' and *karri* 'stand' occur as copulas,[42] and a few verbs of motion are also found in some contexts. Often, the choice of one over another often relates to aspectual distinctions or the type of construction. For example,

[42] No verb with a unique meaning 'lie' has been identified in Mangarla. In elicitation, the action/manner nominal *lampu* 'lie/sleep' is given with a copula or verbal derivation using inchoative suffix. McKelson (1974:150) gives a range of action nominals indicating posture, also used with the copula *wanti* and translated as 'lying' or 'sitting' *e.g.* on side/back/elbow, with legs crossed over/ stretched out *etc*.

wanti is the default copula, found in all types of clause, but a motion verb may be used for ongoing states, and temporary states may employ *jarri* or *karri*. The first of these is common with emotional states, while the latter is used more often to describe location and stance. The absence of stance and motion verbs in some contexts may mean that they do not function as copulas, but rather as simple intransitive verbs (Dixon 2002b:21).

Dixon (2002b:5-6) identifies six types of information provided by a CC about the subject: identity/equation, attribution, location, possession, wanting/benefaction and existence. The defining criterion for a copula verb is that it must be able to take two core arguments (p. 7), and relate identity/equative and attributive meanings to the subject, although Mangarla is not unusual in expressing a relation of existence with a 'reduced' copula construction that has no CC, just the subject and copula verb.

The six types of copula construction are illustrated below with the two main copula verbs. Other types considered to be used as a copula are given later. A copula complement may be a single nominal, or multi-element NP.

Identity/equative clauses with *wanti*:

12.1 *ngayu=rna wani-nya yangka-karti wupa manga*
I=1SG.S be-PST behind-ALL small girl
'I was the youngest little girl.' (1M19)

12.2 *nyalartu=pa=na wanti pantu wirli*
PROX=ASSERT=3SG.S be.PRES MED feather
'This is probably a feather from that one.' (PSh21)

12.3 *Pirnikarrartu kampaja=na wani-nyarri*
personal.name mother=3SG.S be-IPFV
'Pirnikarrartu is (my last) mother.' (1R36)

These types are more commonly expressed without the copula (§12..2), but occasionally employ the inchoative, *jarri*. One example with *karri* (12.5) may be interpreted alternatively as an existential, as only one NP is expressed and this may be the subject rather than the complement whose subject is elided. The speaker is comparing a type of grass in the environment with the one used in the activity she has been describing.

12.4 *kuwi-marta=rna jarri-nya*
meat-CPR=1SG.S INCH-PST
'I was the hunting type.' (2J21)

12.5 *nyaltu-waliny nga=na karri*
PROX-SEMB CAT=3SG.S stand.PRES
'(The grass) is this kind.'/ (1J98)
?'This kind is (here).'

Attributive complements may be unsuffixed or derived stems (12.8) and include NPs which signify a (?temporary) lack of something (12.7). 'Having' clauses, formed with the same suffix, always seem to omit the copula (see (12.56-57) in §12.2.1).

12.6 *kunyarr marranyan nga=na wani-nyarri*
dog hungry CAT=3SG.S be-IPFV
'The dog is hungry.' (PSan11)

12.7 *nyumpala=mpala wanti-nyarri warnjarl wajarri-artu*
you.two=2DU.S be-IPFV leaf NEG-COM
'You two have no tea.' (2sen134)

12.8 *ñudin garadyi na wandi*
ngurtin-karraji=na wanti
alone-PERT=3SG.S be.PRES
'He sits down alone.' (McK:117)

An action/manner nominal as the complement of a copula clause frequently denotes a physical position or state or acts like a participle.

12.9 *mirti-jurrurn~jurrurn nga=na wani-nyarri.*
knee-?~RDP CAT=3SG.S be-IPFV
'She's kneeling down.' (PSh67)

12.10 *lampu=na wanti*
sleep=3SG.S be.PRES
'He is asleep.' (PSan36)

12.11 *wajarri=rna nila wantayi*
NEG=1SG.S clever be.NPIRR
'I don't know.' (PSh56)

The verb *kapa* 'sit/come' is used with an attribute in (12.12). Both attributes and states occur with *karri* (12.13-14) and *jarri* (12.15-16). The inchoative verb in these constructions may be analysed as an auxiliary in a 'loose' compound (§7.2.3) or as a copula. It usually denotes transient or evolving states, often cognitive or emotional.

12.12 *wipirti ningarra=nyjangu=rna kapa-na yakarni-marta nyaltu-waliny*
small true=INDEED=1SG.S sit-PST thus-CPR PROX-SEMB
'I was only small like this kid here.' (1J40)

12.13 *nyalarta=na mampat karri-nyarri*
PROX=3SG.S fat stand-IPFV
'This is a fat one'. (MC30)

12.14 *karri-ngka=na karri*
standing-LOC=3SG.S stand.PRES
It is standing. (PSan4)

12.15 *ngijakura nimarrangka parra~parra=rna jarri*
I.GEN arm heat~RDP=1SG.S INCH.PRES
'My arm is sore.' (3Sen17)

12.16 *rayin nga=napala jarri-nya*
fear CAT=3DU.S INCH-PST
'Those two were frightened!' (1P62)

Some action/manner nominals function as predicates that can select a complement (§12.3), even when the clause contains a copula. This may be in the purposive, or may be an oblique argument which can be registered by an oblique BP (12.18)

12.17 *rayin nga=ni-ya jarri-nyarrinya wayitpal-ta*
fear CAT=3PL.S-EP INCH-NARPST whitefella(E)-LOC
'They were afraid of the whitefella.' (Ngi16)

12.18 *ñidya gura wulu ñanala waninya bunda*
ngijakura wulu nga=na=la wani-nya punta
I.GEN father CAT=3SG.S=3SG.OBL be-PST promised
'In marriage she was promised (*bunda*) for my father.' (McK:160)

12.19 *nila=rna wanti Mangarla-pirri wupartijina-pirri*
clever=1SG.S be.PRES Mangarla-PURP little.bit-PURP
'I know (how to speak) a little bit of Mangarla.' (G91)

Location is expressed by complements that are unmarked spatial temporal locators or NPs in locative case including demonstratives and the locative interrogative pronoun.

12.20 *wirirl nga=na wanti warnku-ngka*
king.brown.snake CAT=3SG.S be.PRES stone-LOC
'The king brown is on the rock.' (PSan46)

12.21 *wani-nya=ngarni jartarrangka*
be-PST=1PL.EX.S long.time
'We stayed there for a long time.' (1M54)

12.22 *jarni-ngka=ni wanti*
where-LOC=3PL.S be.PRES
'Where are they?' (1M36)

12.23 *turuk-arti=ni wanti panara-ja*
butte-PL=3PL.S be.PRES MED-LOC
'Those buttes are all there.' (Nya49alt)

A few examples use *jarri*. Just as verbs of stance with locative complements are ambiguous as copulas or intransitive verbs, the free inchoative in a loose compound can be interpreted as a copula or verbaliser with scope over the preceding NP (§7.3).

12.24 *pantu wakaj-kuyarra kaniny martuwarra-ja=na jarri-nya Nyikina-ja*
MED complete-all below river-LOC=3SG.S INCH-PST Nyikina-LOC
'Everybody arrived down by the river in Nyikina country.' (1D26)

In (12.25), an oblique BP registers the elided complement, which is assumed to be a locative accessory that is registered in the same way as those with intransitive verbs. However, *karri* here bears no sense of stance and meets the criteria for classification as a copula.

12.25 *wulu ngu ñandyurruñga* *gududu dyu* *garinyari*
wulu-ngku=nganyjurrungka *kurturtu-ju* *karri-nyarri*
father-ERG=1PL.IN.OBL stomach-ERG stand-IPFV
'The Father loves us.' (McK:RT)
(*lit*. 'Father's feeling is with us.')

Possession is only expressed with *wanti* or no verb, and employs a genitive complement. These are usually oblique possessives (§10.4.4) in which the possessor is registered by an oblique clitic allowing it to be elided. These can have a benefactive sense (§10.4.4).

12.26 *murta=palangka* *ngapa* *wanti* *jurru-yarra-kura*
nothing=3DU.OBL water be.PRES snake-DU-GEN
'The water only belongs to the two snakes.'/ (MC8)
'The water is only for the two snakes.'

12.27 *ngapa=na=la* *wanti*
water=3SG.S=3SG.OBL be.PRES
'It is his water.'/'The water is his/for him.' (3Sen28)

12.28 *wayitpal-kura* *ruwut* *nga=na* *wani-nyarrinya*
whitefella(E)-GEN road(E) CAT=3SG.S be-NARPST
'The road belonged to the whitefella.'/ (1R18)
'It was a whitefella's road.'

Copula constructions which select a dative complement convey a sense of **desire, longing, or need**. The dative argument in these is never registered in the BP complex unlike a dative NP that denotes an accessory when used with the same verbs as intransitives. A purposive complement (§13.4.2) can replace the dative NP when the complement describes an activity. Three of the verbs listed in the introduction are found with this interpretation: *karri* 'stand', *jarri* 'inchoative', and *wanti* 'be'.

12.29 *nyuntu nga=n karri-nyarri yalparra warnjarl-ku*
you.SG CAT=2SG.S stand-IPFV again tea-DAT
'Do you want more tea?' (2sen138)

12.30 *ngayu-ngku nga=rna jarri manga*
I-ERG CAT=1SG.S INCH girl.DAT
'I want a girl.' (1P55)

12.31 *ngayu=rna kapa-nu-pirri wani-nyarri*
I=1SG.S sit-INF-PURP be-IPFV
'I want to sit down.' (2sen176)

The ergative subject in (12.30) is unexpected. Dixon (2002b:10-11) notes the use of an ergative subject in other languages for particular types of copula construction. However, it is unusual in Mangarla and this instance, and that in (12.25), are both considered examples of optional ergativity (McGregor and Verstraete 2010), probably to reflect a greater degree of agency or will in the subject (§11.3.9.2).

The final type of copula construction describes the **existence** of an entity. This type omits the complement. Copula clauses, including existence types, can be negated (12.35).

12.32 *turuk-kuyarra=pala wanti, kujarra warnku-yarra*
butte-DU=3DU.S be.PRES two stone-DU
'There are two little tank shaped buttes, two hills.' (Nya31)

12.33 *winmil yulpurru-artu=na wani-nyarrinya*
windmill(E) early-COM=3SG.S be-NARPST
'There used to be a windmill from the early days there.' (93sen77)

12.34 *murrkun pirntirri=na wanti*
three plain=3SG.S be.PRES
'There are three plains.' (Nya81)

12.35 *wajarri nga=na panartu wanti-ma*
NEG CAT=3SG.S MED be-PSTIRR
'That one wasn't (there with us)!' (1J166)

As noted above, examples are often ambiguous with regards to both the status of the verb as a copula or (extended) intransitive verb and to the type of construction if interpreted as a copula. This is particularly true when location or posture complements are used with verbs of stance (12.36), or when human subjects are used with *wanti* 'be/stay' (12.37). When only one third person singular NP is expressed, deciding if it is subject or complement can also be difficult (12.37).

12.36 *pirra=ni karri karnti-ngka panjurn-ta*
bush=3PL.S stand.PRES climb-LOC wood-LOC
'They are in the bush high up in a tree.' (PSh168)
'They are standing up high in a tree in the bush.'

12.37 *wanyjirra=na wanti*
other=3SG.S be.PRES
'The other one lives there.' (*Vi 'reside'*)
'The other one is there.' (*location*)
'There is another one.' (*existential*)
'It is another/different one.' (*ascriptive*) (PSh123)

A few verbs of motion also occur in the McKelson (1974) corpus as copulas indicating an ongoing state. They are not used to express location (except as extended intransitives), identity, possession, wanting, or existence.

12.38 *ñayu na walga badinyari*
ngayu=rna walka parti-nyarri
I=1SG.S dry go.IPFV
'I am thirsty.' (McK:122)

12.39 *bani na maṉuny garadyi wuda*
pani=na manguny-karraji wurta-n.
s/he=3SG.S Dreamtime-PERT flow-PRES
'He is always quiet.' (McK:124)
(?'He is eternal.' *lit*. 'He goes along without interruption as one from the Dreamtime.')

12.40 *ñaña badina*
nganga parti=rna
lost go-PST=1SG.S
'I am lost.' (McK:113)

12.2 Verbless sentences

A verbless sentence has a nominal predicate. Most are simply copula constructions from which the verb is deleted. Hence, they are unmarked for TAM and this information is inferred from the surrounding text or shared knowledge. However, certain moods can be signalled by a range of particles and clitics (§3.5), as for verbal clauses. When a speaker feels TAM information is needed, a copula is used making all verbal inflectional categories available (§12.1).

As for other clauses, the subject NP can be expressed or elided and the clause may consist just of the predicate. When it is expressed, it is in absolutive case. The BP complex is optional in most verbless sentences, and often omitted. Neither animacy nor person of the referent, or its expression as an NP affects the inclusion of a BP complex, which may or may not contain the catalyst.

As when a copula is present, a nominal predicate provides information about the subject which refers to identity/equation, attribution, location, possession/benefaction and existence. Each of these has an expanded range of predicate types not found with copula constructions. These often involve an increased range of adnominal suffixes, such as the comitative in 'having' clauses, or other constructions indicative of the relation between subject and predicate. The 'wanting' construction expressed by a copula cannot be expressed by a verbless clause. Action/manner nominals which rarely occur with a copula were described as attributive constructions in §12.1. However, as specialised nominal predicates they combine with nouns in spatial cases and others to form a much broader category of non-verbal predicate describing activities and events (§12.2.3).

12.2.1 Identity, attribute, location, possession and existence

Identity/equative clauses often have a demonstrative subject which indicates an entity in the environment or discourse that is identified by the predicate. These often have a presentational function, introducing a participant into the discourse.

12.41 *kurrita nyaltu*
dingo PROX
'This is a dingo.' (PSan2alt)

12.42 *nyalartu Talyu-karraji marrkartu ngijakura, ngalyarra-kura*
PROX personal.name-PERT young.sibling I.GEN s/he&I-GEN
'This was Talyu, my, our younger sister.' (2J60)

12.43 *ngayu purlka marnin*
I big woman
'I am a mature woman.' (3Sen53)

A specific entity can be identified as a member of the general class. Either superset (bolded) or subset can function as predicate. As the relationship between the two elements is encoded in the semantics of the construction, this type never occurs with a copula.

12.44 *wirrpan* ***mangarri***
bush.onion **veg.food**
'Bush onions are food. (2R33a)

12.45 *walu* ***Mangarla***
forehead **Mangarla**
'The word *walu* is Mangarla.' (2R38)

12.46 *mulnyi* ***yini*** *Langaljali*
soil **name** placename
'The name of the place is Langaljali.' (Ngi36b)

Subject ellipsis is common when the subject is already known. Hence, a verbless clause may consist of just the predicate (12.47-48).

12.47 *jarntu-yarti*
relative-PL
'(They were his) relatives.' (Ngi67)

12.48 *kajalu-yangka*
ahead-SRC
'(It is) from before/ an earlier one.' (HTG97)

The negative particle can be used to negate a proposition (12.49, 12.53).

12.49 *ngayu wajarri Mangarla-artu mininy*
I NEG Mangarla-COM language
'I am not a Mangarla speaker.' (2D35)

Attributive predicates ascribe a property or state to the subject. Like those with copula verbs, they may be unsuffixed stems (12.50) or employ derivational suffixes (12.51-52). A comparative clause employing the semblative suffix is shown in (12.53) where the inclusion of a BP allows the subject NP to be elided.

12.50 *walaja wulyu*
sugarbag good
'Honey tastes good.' (nbkA:62)

12.51 *gui ñana wiru gudyi*
kuwi nga=na wiru-kurrji
meat CAT=3SG.S maggot-BEL
'This meat has maggots.' (McK:78)

12.52 *Bidyadanga kunurru-karra*
placename(KJ) white.gum-MAN
'Bidyadanga is white gum country.' (2sen142)

12.53 *wajarri=rna wanyjirra-arti-waliny*
NEG=1SG.S other-PL-SEMB
'I'm not the same as these others.' (2J116)

12.54 *giridya gura anga ñanala wulu*
kirija-kura-angka nga=na=la wulu
single.man-GEN-SRC CAT=3SG.S=3SG.OBL father
'His father is a single man.' (McK:100)
(*lit.* '(His) father is from the single men's (camp).')

12.55 *pirra-ngu=na kilu, pirra-martaji*
bush-ABL=3SG.S mouse bush-ASS
'This mouse is from the bush, a bush dweller.' (PSan81)

Attributive predicates can also be inflected in a wide range of adnominal cases, or even more than one (12.54), such as the source (12.54), ablative (12.55) or comitative which is used in **having/lacking** clauses. As there is no privative suffix in Mangarla, the lack of something is expressed by adding the comitative to the negative particle, *wajarri*.

12.56 *ngijakura wulu, wulu ngijakura kujarra-artu wangu*
I.GEN father father I.GEN two-COM wife
'My father had two wives.' (1P63)

12.57 *wajarri-artu ngulyku ngayu*
NEG-COM beard I
'I have no beard.' (3Sen55)

Non-finite or nominalised verbs (§8.3.11) hosting complementiser/derivational suffixes can also function as nominal predicates to attribute purpose or describe the nature of the content of a story. A purposive clausal predicate, complete with object, is shown in (12.58), while the nominal predicate in (12.59) is a conjoined NP containing a nominalised clause with the perfect complementiser.

12.58 *dyudyu inba nu biri yura*
juju yinpa-nu-pirri yurra
song sing-INF-PURP night
'The night is for singing cobbacobbas.' (McK:109)

12.59 *wajarri yarrkal~yarrkal-pu-ngu-angka-pa ngantu-pa*
NEG hunting~RDP-AUX-INF-SRC-and what-and
'It isn't about having gone hunting and whatever.' (1D95)

Location clauses locate an entity in time or space, with general nouns in locative case or spatial and temporal locator (STL) nominals which do not require overt case-marking.

12.60 *pirti-ngka nga=pala kujarra kuwi wipirti-marta*
hole-LOC CAT=3DU.S two meat small-CPR
There are two littlish animals in a hole.' (1J136)

12.61 *warnku=na panpara-ja*
stone=3SG.S MED-LOC
'There are hills there.' (FKNgi8)

12.62 *ngayu=rna kaniny ngayu*
I=1SG.S below I
'I was down below.' (2J98)

12.63 *kajalu wanyjirra yulpurru-rra*
ahead other early-?
'The others got there before us.' (FKNgi18)

Possessive clauses employ a possessor or possessive phrase as the predicate, and non-verbal types are more common than those with a copula. All three types of possession (§10.4) can be expressed by non-verbal clauses which generally employ the genitive, although this is optional with inalienable possessors.

12.64 *ṉidyagura marulu, nyundugura marulu*
ngijakura marulu nyuntukura marulu
I.GEN belongings you.SG-GEN belongings
'My things are your things.' (McK:114)

12.65 *yagabiri dyina gura*
yakapiri jina-kura
bush.sandal foot-GEN
'shoe material' (McK:89)
'Bush sandals belong to feet.'

Neither possessor or possessum are registered in nominal headed clauses expressing regular alienable possession (12.64-65). With inalienable possessions (§10.4.3),

registration of the possessor is optional (12.66-68) and in oblique possessive constructions (§10.4.4) it is obligatory (12.69-70). An inalienable possessor is registered as the subject, even when the genitive marker is used (12.67), while in oblique possessive constructions it is always registered as an oblique. Its registration, allows a possessor NP to be elided (12.68, 12.70).

12.66 *mil rabu rabu ñayu*
mil rapu~rapu ngayu
eye lump~RDP I
I have a bung eye.'/ (McK:69)
'My eye is inflamed.'

12.67 *marru=n nyuntu-kura*
head=2SG.S you.SG-GEN
'It's your head.' (3Sen15)

12.68 *walu-n gidirn*
walu=n kitirn
forehead=2SG.S wrinkles
'You have wrinkles.'/ (McK:70)
'Your forehead is wrinkled.'

12.69 *nyaltu=na=ja kuwi ngijakura*
PROX=3SG.S=1SG.OBL meat I.GEN
'This is my meat.' (2sen54)

12.70 *kuwi=lpa=na=la*
meat=ASSERT=3SG.S=3SG.OBL
'He thinks the meat is his/ it's his meat.' (PSan17alt)

Existential sentences assert the existence of an entity. Without the copula, they consist of a single NP.

12.71 *kuwi=nyjangu wulala*
meat=INDEED a.lot
'There is a lot of real (good) fish.' (PSh103)

12.72 *walu wadyaradu*
warlu wajarri-artu
fire NEG-COM
'There is no wood.' (McK:91)

12.2.2 Non-verbal questions

Non-verbal clauses are used to question a greater range of information than those with copulas and have several different expressions. Firstly, as for verbal clauses, a rising intonation, rather then the usual downward inflection of declaratives, may be the only indication that a question is being asked (12.73-74). The interrogative particle *wayi* may be used (12.75) for polar questions or an interrogative pronoun which indicates the type of information being sought.

12.73 *Walangkarr nga=na warnku-yartu?*
placename CAT=3SG.S stone-COM
'Are there hills at Edgar Range?' (H35)

12.74 *paarni?? paarni-ya=wu!*
perentie(K) perentie(K)-EP=EMPH
'Is that a goanna? It is a goanna!' (PSh153-4)

12.75 *wayi=lpa kunyarr panartu*
Q=ASSERT dog MED
'Is that the dog?' (PSh40)

12.76 *ngantu mangarri*
what veg.food
'What food is it?' (2sen15)

12.77 *dyani nyundu gura*
jarni nyuntu-kura
where you.SG-GEN
'Which is yours?' (McK:48)

12.2.3 Activities

Nominal predicates can describe activities. Action/manner nominals are more commonly found as secondary predications (§12.4), but can also function as underived primary predicates (bolded below). As with referential and ascriptive verbless clauses, the subject is often already established and elided.

12.78 ***nguru*** *nga=na, nguuuuru*
howl CAT=3SG.S howl
'It howls, "Awuuu."' (PSan5)

12.79 ***kurtiji***
swift
'(He's) running.' (HTG25)

Action nominals can occur together with STLs or nominals in ablative or allative cases, which denote destinations, starting points and purpose of an activity.

12.80 *kakarra-ngu* ***wurna*** *kara*
east-ABL **move.off** west
'From the east (we moved) west.' (1P40)

12.81 ***wurna*** ***yarrkal,*** ***wurna*** *kaniny-jurra,*
move.off **hunting** **move.off** below-down

wurna *kuwi-karti nyarra-kurna*
move.off meat-ALL away-wards
'(We went) on excursions hunting, moving down from the hills, trips away to hunting sites.' (1J173)

Without an action/manner nominal to specify the activity, an STL or general nominal in allative and ablative case can function as a predicate on its own. These are analogous to locational verbless clauses which employ the locative (§12.1.2) but their directional component conveys a sense of movement to or from the marked nominal.

12.82 *pani* ***kankara-ngu***
s/he **above-ABL**
'She came from above.' (MC60)

12.83 *pantangkaju* ***ngurra-karti*** ***purnkurr-karti***
after.that **camp-ALL** **shade-ALL**
'After that, (he goes) to camp, to the shade.' (HTG36)

12.84 *wirli~wirli-yartu* ***kuwi-karti***
fishing.line~RDP-COM **meat-ALL**
'(She is going) fishing with a fishing line.' (2sen13)

Finally, reduplicated general nominals can be used without a verb to indicate activities.

12.85 *yarliti* *murta* ***makurr~makurr*** *yakarnu-karra*
holiday(E) nothing **path~RDP** thus-MAN
'In the holidays, there was no work. We beat a path to and fro, like that.' (1P69)

12.86 *panarungangkaju* ***ngurra~ngurra***
after.that **camp~RDP**
'After that, (we would make) camp.' (2J128)

12.3 Nominal predicates with non-subject arguments

Some nominal predicates optionally select a non-subject argument or clausal complement (§13.4.2) in addition to an absolutive subject. They often occur in verbless clauses, but their ability to introduce an additional argument is also manifest when they occur with a copula verb (§12.1) or are verbalised with the inchoative (§7.3). Most involve cognition or emotions.

As in related languages, nominals signifying knowledge and ignorance can optionally take a non-subject argument. Two such nominals are shown in (12.87) as simple ascriptive predicates and in (12.88-91) with unmarked complements. A copula is used in (12.91). Registration of arguments is optional with these predicates; (12.87-88) have no BPs, while (12.89-91) register subjects.

12.87 *wadyari nila ṉayu, ṉurba na*
wajarri nila ngayu ngurrpa=rna
NEG clever I ignorant=1SG.S
'I don't know - I am ignorant.' (McK:158)

12.88 *wajarri nila wayitpal*
NEG clever whitefella(E)
'They did not know the whitefella's ways.' (Ngi8)

12.89 *ngurrpa=ngarni-ya Yingkilij nganarni*
ignorant=1PL.EX.S-EP English(E) we.all.EX
'We didn't know English.' (1M52)

12.90 *nindi la ṉaruṉu banbudu*
ninti=la ngarrungu panpartu
knowing=1PL.IN.S person MED
'We know that man.' (McK:158)

12.91 *ngurrpa=ngarni-ya wani-nya* any kind *nyaltu mayaru*
ignorant=1PL.EX.S-EP be-PST PROX house
'We were ignorant about stuff like these 'houses'.' (1M92)

With no clitic registering it, the case of the non-subject argument is impossible to determine, and these predicates exhibit great variation. In most related languages (*e.g.* Warlpiri (Simpson 1991:333-334), Wangkajunga (Jones 2011:247), Nyangumarta (Sharp 2004:326), Walmajarri (Hudson 1978:26), and Jaru (Tsunoda 1981:112)), similar predicates select dative complements which are registered. In Warlpiri, they tend to be cross-referenced only when the clause contains a copula (Simpson 1991:333-334). Nash (1986:208) suggests that registration may relate to the definiteness of the argument.

As the Mangarla dative is unmarked, and often unregistered when an NP is expressed with a third person referent, NP objects in (12.88-91) are formally identical to absolutive objects. For at least one Jarlmadangah speaker, *ngurrpa* 'ignorant' can select a dative argument. In (12.92), the unmarked *panartarra* is registered by an oblique BP.

12.92 *ngayu ngurrpa=rna=palangka panartarra*
I ignorant=1SG.S=3DU.OBL MED.DU.DAT
'I didn't know anything about those two.' (1J21alt)

However, although there is no overt NP in (12.93), the argument is recoverable from the clitic which registers it. This is the object BP *=iny* rather than the oblique *=inya(la)* which would register a dative.

12.93 *ñayu nain ñurba*
ngayu=rna=yiny ngurrpa
I=1SG.S=3PL.O ignorant
'I don't know them.' (McK:122)

In Bilinarra, the same types of nominal predicates can take an (accusative) object or indirect (dative) object which reflects a difference in meaning 'know (*e.g.* person, language)' and 'know about/how to (topic)' (Meakins and Nordlinger 2014:359-360). It seems that this distinction may potentially exist in Mangarla, although a purposive complement is used for 'know about', particularly when the complement refers to an activity. Purposives NPs are rarely if ever registered.

12.94 *ñayu nila gali birri, garbina birri, darugu birri*
ngayu nila karli-pirri, karrpina-pirri, tarruku-pirri.
I clever boomerang-PURP shield-PURP law-PURP
'I know about boomerangs, shields, and business (native law).' (McK:158)
('I know (how to make/use/look after) boomerangs, shields and business.')

12.95 *nyumpala=mpala nila jani-ma-nu-pirri mayi-pirri*
you.two=2DU.S clever cook-AUX-INF-PURP veg.food-PURP
'You two know how to cook bread.' (2sen151)

Purposive case also marks the nominalised clausal complements of the nominal *yumpaly* 'don't want' and *manyula* 'weary/tired' which can both be used to indicate a lack of desire (12.96-97). Non-finite clausal complements are examined in §13.4.2.

12.96 *yumpaly nga=rna wurna-purru*
don't.want CAT=1SG.S move.off-PURP
'I don't want to go for a walk.' (2sen193)

12.97 *imbaly ñana milgañu birri*
yumpaly nga=rna mil-ka-ngu-pirri
don't.want CAT=1SG.S eye-AUX-INF-PURP
'I don't like to see him.' (McK:142)

Some general nominals can also take non-subject arguments. In (12.98), *wulyu* indicates a state of mind. Without an NP, it is impossible to identify the case of the non-subject arguments registered by oblique BPs but they too are likely to be dative, although a locative accessory, would be registered in the same way.

12.98 *nyurra wulyu nyurru dya? Yu wulyu naniyañga*
nyurra wulyu=nyurru=ja. Yu wulyu=ngarni-ya=ngka
you.all good=2PL.S=1SG.OBL yes good=1PL.EX.S-EP=2SG.OBL
'Do you agree [with me?] Yes, we agree [with you].' (McK:157)

Other examples with copulas add an NP denoting the target of an emotional state.

12.99 *gududu wandina manin gu murgu yadu gu*
kurturtu wanti=rna marnin-ku muku-yartu-ku
stomach be.PRES=1SG.S woman-DAT sickness-COM-DAT
'I feel sorry for that sick woman.' (McK:72)
(*lit*. 'I am feeling for the woman with sickness.')

12.100 *maranyan ñana dyari gui birri*
maranyan nga=na jarri kuwi-pirri
hunger CAT=3SG.S INCH.PRES meat-PURP
'He is hungry for meat.' (McK:103)

12.4 Secondary predication

Secondary predicates in Mangarla are a general adjunct construction (Schultze-Berndt and Himmelmann 2004, Himmelmann and Schultze-Berndt 2005), which convey depictive (participant-focussed) content such as physical or psychological states of main

clause participants as well as adverbial (event-focussed) content (Schultze-Berndt and Himmelmann 2004:78). Depictive secondary predicates can be predicated of a participant in subject, object or oblique function. Event-oriented information specifies the type of event or the manner in which a participant performs or is involved in the activity described by the main predicate. Secondary predicates are neither arguments nor main predicates. Nor do they form a complex predicate in combination with the main predicate, which can be verbal or nominal. The occur as separate constituents, often on the peripheries of the clause.

Like attributives in copula and verbless clauses, **depictives** ascribe a characteristic to a participant, true at the time of the proposition. Typical attributes expressed by second predicates are stages of life, emotional and physical states. In examples given in this section, secondary predicates are bolded and the arguments on which they are predicated, where they occur, are underlined.

12.101 *kurna-narrinya=ngarni-ya panartu <u>nganarni-ju</u> ngapa* ***kartu-yaru***
ingest-NARPST=1PL.EX.S-EP MED <u>we.all.EX-ERG</u> water **child-PL.ERG**
We used to drink that water, when we were kids.' (1J39)

12.102 ***pararrka****=rna ngaja-nyarri*
sorry=1SG.S cry-IPFV
'I'm crying in sorrow.' (Rnbk4:69)

12.103 *ngujartu warlu nga=ni-ya=rnangka jaya-narrinya* ***pirriya***
REC fire CAT=3PL.S-EP-RROBL burn-NARPST **cold**
'They lit that fire for themselves because they were cold.' (FKNgi89)

Depictives generally agree in case with the argument on which they are predicated, although number agreement as in (12.101) is rare. Ergative case marks the secondary predicate in agreement with an NP in A function in (12.101), while unmarked attributives are predicated on the intransitive subject (12.102, 12.108) and non-subject arguments in (12.106-107). Referential case markers are almost always omitted from certain nominals, particularly if non-referential or abstract and those which may be interpreted adverbially (12.103). They are also often absent from secondary predicates in reflexive clauses (12.103-104) where subject and object are coreferential, although not always (12.105).

12.104 ***marrpun*** *nga=ni-ya=rna pina-ma-na*
hungry CAT=3PL.S-EP-RR hear-AUX-PST
'They felt themselves hungry.' (FKNgi62)

12.105 *pani-ngku nga=na=rnangka jani-ma-na=rnangka* ***ngurtin-tu***
s/he-ERG CAT=3SG.S=RROBL cook-AUX-PST=RROBL **alone-ERG**
'He cooked for himself on his own.' (G105)

12.106 *kaka ngijakura=rna wanyja-na* ***ruru-karra****, kaniny Mantikarrakapu*
uncle I.GEN=1SG.S leave-PST **crippled-MAN** below placename
'I left my uncle who was crippled down at Dampier Downs.' (2J26)

12.107 *wandyana ṉaniyinya nyalu*
wanyja-na nga=ni=inya ***nyarlu***
leave-PST CAT=3PL.S=3PL.OBL **dead**
'They left them dead.'[43] (McK:96)

Secondary predications can also occur in non-verbal clauses. In (12.108) *kartu* is predicated of the subject *ngayu* in a non-verbal main clause where *jitany* is the predicate.

12.108 *ngayu jitany* ***kartu*** *mil~mil-ka-ngu-karra*
I seated **child** eye~RDP-AUX-INF-MAN
'As a child, I would sit watching.' (HTS12)

Certain characteristics of non-configurational languages mean that some ascriptive secondary predicates might have other interpretations. Some may be viewed as discontinuous NPs and given a merged reading (§9.5). For example, (12.106) may be translated as 'I left my crippled uncle'. In others, the ascriptive may be interpreted as referential and therefore as the argument or as the modifier of an elided head. For example, the attributive in (12.107) could also be interpreted as as the object 'They left the dead'. However, a secondary predicate reading is supported by criteria set out by Schultze-Berndt and Simard (2012). These NPs, which tend to occur later in the clause,

[43] This verb selects an absolutive object (registered by =Ø 3SG.O in (12.106)) for all but third person plural (see §6.1.1.3, §11.3.9.4).

do not establish reference or add to the description of the referent, as discontinuous modifiers would, but they 'predicate a state of affairs which holds within the time frame of the state of affairs expressed by the main predicate' (p. 1029-1030).

12.109 *paniyarra=pala kurta-na* ***wajarrartu ngapa***
they2=3DU.S perish-PST **NEG.COM** **water**
'The two perished having no water.' (H12)

The lack of referential marking in (12.103) may be because *pirriya* is open to an adverbial interpretation, 'for the cold'. Adverbial types often occur without referential case. The more event-oriented **adverbial secondary predicates** are most commonly action or manner nominals.

12.110 *muda ṉana widi ṉgu mindyi gana*
murta nga=rna ***witi-ngku*** *minji-ka-na*
nothing CAT=1SG.S **play-ERG** deceit-AUX-PST
'I only play with you.' (McK:158)
'I only tricked you in play.'

12.111 *kurrka-yi-nku=na* ***kurtiji, kurtiji*** *panjurn nga=na karntu*
rise-AUX-FUT=3SG.S **swift** **swift** wood CAT=3SG.S climb.FUT
'He'll get up running. He will climb the tree running.' (HTG11-12)

12.112 ***jitany*** *nga=rna mil-ka-nya*
seated CAT=1SG.S eye-AUX-PST
'I saw him seated.' (G20)

These are extremely variable in agreement marking. The next two examples are clearly predicated of an argument in A function, but bear no referential case, unlike the third.

12.113 ***ngampurr*** *nga=na wira=wu, jilamana-artu-ju*
care CAT=3SG.S shoot.PRES=EMPH rifle-COM-ERG
'He shoots it carefully with the rifle.' (PSh47)

12.114 *babar binyanana.*
paparr *pinya=rna=na*
mistake hit.PST=1SG.S=2SG.O
'I hit you by mistake.' (McK:113)

12.115 *babar babar dyu ñanana gadibinya bulyar*
paparr~paparr-ju *nga=na=rna kati-pinya pulyarr*
mistake~RDP-ERG CAT=3SG.S=RR cut-AUX.PST sinew
'By mistake he cut his sinew.' (McK:77)

In the Jarlmadanga corpus, manner nominals very rarely show referential agreement on uninflected stems, although it is more common in McKelson's (1974) corpus, shown in (12.110) and (12.115). Perhaps Mangarla has relaxed the requirement for agreement with manner nominals because they tend to be subject-oriented, something observed for Warlpiri (Hale 1982:280, Simpson 1991:123-125) and Wangkajunga (Jones 2011:261) where referential case marking is obligatory. However, in Mangarla this may not always be the case. Despite the use of an adverb in the translations for the next two examples, and apparent inconsistency in marking agreement, it is possible that in (12.117) *junga* is predicated of the object (?'I took my woman who was straight'), and therefore is unmarked in agreement with the absolutive.

12.116 *dyibañu dyu ñana ñungu gan mañurl dadu dyu*
jipangu-ju *nga=na ngungku-ka-n mangurl-tartu-ju*
true-ERG CAT=3SG.S correct-AUX-PRES spear-COM-ERG
'He aimed straight with a spear.' (McK:153)
(*lit*. 'He does it correctly with the spear and is true.')

12.117 *dyuña na ñidya gura manin ganya*
junga*=rna ngijakura marnin ka-nya.*
straight=1SG.S I.GEN woman take-PST
'I took my woman straight (I married her according to the correct section).'
(McK:152)

Many manner nominals can have ascriptive or adverbial interpretations (and sometimes also refer to actions) (*e.g*. *punyja* 'slow/slowly', *kuli* 'angry/angrily/fighting', *kurtiji* 'swift/quickly/running') and an ascriptive reading is more likely to show agreement.

In descriptions of some Ngumpin languages (Jaru (Tsunoda 1981:185), Bilinarra (Meakins and Nordlinger 2014:310-339), and Walmajarri (Hudson 1978:46)), similar expressions are analysed as preverbs/coverbs. As such, they do not agree with nominal arguments. In Mangarla, certain manner nominals, such as those describing emotional reactions or postures, never show ergative or number agreement (12.118-19), just like their coverb cousins.

12.118 *ñayu ngu ñana rain nyaña*
ngayu-ngku nga=rna ***rayin*** *nya-nga*
I-ERG CAT=1SG.S **fear** see-PRES
'I am frightened.' (McK:119)
(*lit.* 'I see it with/sense fear.')

12.119 *wanyjirra=na kampaja-ju ka-ngarrinya Nininini* ***janturla,***
other=3SG.S mother-ERG carry-NARPST personal.name **on.hip**

jarna-pa
piggyback-and
'Our mother carried the other one, Nininini, in her arms and on her back.'
(1J19)

However, in §7.2.3, I describe their relative independence from the verbs, their ability to take nominal inflections and perform different functions, and conclude that in Mangarla they do not form complex verbs as they do in the aforementioned languages. Mangarla seems to fall between these two extremes of Warlpiri and Bilinarra, allowing agreement but not always applying it. Action/manner nominals may also be divided into separate subcategories which require differential treatment, as in Nyikina (see below).

Action nominals are more readily predicated of non-subject arguments than manner nominals and so might be expected to be more consistent in agreement marking when predicated on an agent as in (12.110); however, agreement can be just as unpredictable on these as on those describing manner.

12.120 ***wurna*** *ngalyarra-ju ka-ngarrinya*
move.off s/he&I-ERG carry-NARPST
'We both carried her as we went along.' (1J150)

Many action/manner nominals, particularly action types, often employ adnominal case markers when used as secondary predicates. Like nominalised verbs (§8.3.11), action nominals can be marked by one of the three complementisers which specify a temporal or logical relation between an activity depicted by the complementised nominal and that described by the main predicate (§13.3). Most, but not all, examples are predicated on NPs in unmarked functions. However, only the temporal anteriority types can take referential case; predicates with the purposive (12.121) and temporal coincidence (12.122) complementisers are never marked in agreement with a main clause agent.

12.121 *gududu ṉaninyiya gadimana widi birri*
kurturtu nga=ni=nyiya karti-ma-na ***witi-pirri***
stomach CAT=3PL.S=1SG.O.EP hold-AUX-PST **play-PURP**
'They touch my belly during the cobba cobba.' (McK:72)
(*lit*. 'They hold my belly for play (the dance).')

12.122 *dyudyu ṉaniyi inbanari galiyadudyu dyirbilgara*
juju nga=ni yinpa-narri karli-yartu-ju ***jirrpil-karra***
song CAT=3PL.S sing-IPFV boomerang-COM-ERG **tap-MAN**
'They are singing a cobba cobba accompanied by striking boomerangs together in rhythm.' (McK:132)

In addition to these case-markers used as complementisers (§13.3), adnominal case is used on action/manner nominals to derive ascriptive states. Referential case is then more readily received on these, but is still apparently optional (12.126). Postural types are found with the comitative (*janturla-artu* [on.hip-COM] 'with something carried on hip', *kurntu-ng-karra-artu* [on.shoulder-EP-MAN-COM] 'with something carried on shoulders'). Unfortunately, no examples of these occur with a transitive verb which would require overt marking, but others use spatial case markers in the same way as numbers and STLs: *wanyju-ngka/wanyju-karti* [one.LOC/one.ALL] 'united'/'uniting', *yangka-karti* [behind-ALL] 'last', *kulu-ngka* [together-LOC] 'together', *punta-ngka* [promised-LOC] 'betrothed', *ngurtin-ta* [self-LOC] 'alone', *karnti-ngka* [climb-LOC] 'up high' *etc*..

12.123 ***karri-ngka*** *nga=rna mil-ka-nya, jitany nga=na kapa-na=na*
standing-LOC CAT=1SG.S eye-AUX-PST seated CAT=3SG.S sit-PST=3SG.S
'I saw him standing (then) he sat down.' (G21)

12.124 *minin binyanala* *wulu nga* *garinga dyu*
minin-pinya=rna=la *wulu-ngka* ***karri-ngka-ju***
language-AUX.PST=1SG.S=3SG.OBL father-LOC **standing-LOC-ERG**
'While standing, I spoke to father.' (McK:50)

12.125 *dyidan ṉu dyu* *mai* *ṉaniya* *gunanyari*
jitany-ngu-ju *mayi* *nga=ni-ya* *kurna-nyarri*
seated-ABL-ERG veg.food CAT=3PL.S-EP ingest-IPFV
'While sitting down, they eat the food.' (McK:51)

12.126 *panartu-arra-ju=pala* *jinya-ninya* *panjurn* ***wurna-ngu~wurnangu***
MED-DU-ERG=3DU.S trim-NARPST wood **move.off-ABL~RDP**
'They were sharpening the stick as they walked along.' (G16)

12.127 ***wurna-ngka****=wun=ni=nya* *purlka-ka-narrinya*
move.off-LOC=WELL=3PL.S=1SG.O big-AUX-NARPST
'That's how they raised me, on the move.' (1R10)

The semantic link of such expresssions to simple spatial adjuncts is clear. In many Pama-Nyungan languages including Mangarla and Warlpiri (Hale 1982:267, Simpson 1988), NPs in spatial cases can be used predicatively (*e.g.* §12.1.3) and bear referential case (§4.3.2.3). In many, forms homophonous with the locative are also used in participial constructions to indicate a temporal relationship of simultaneity or succession between the subordinate and main activities usually performed by the same subjects (*e.g.* non-finite subordinate clauses in Ngumpin-Yapa (Hale 1982:302-305, Simpson 1988, Tsunoda 1981:172, Meakins and Nordlinger 2014:427-428 (where the only examples given involve coverbs rather than non-finite verbs)). In Mangarla, predicational use of the locative is restricted to nominals, including action/manner subtypes, and is never found on verbs, even when nominalised. This pattern is also found in the non-Pama-Nyungan Yawuru (Hosokawa 2011:259), where locative-marked coverbs describe continuous activities and Nyikina (Stokes 1982:355-359), where all spatial cases can be used on coverbs, to signal simultaneous states or activities. The choice between them is complex and dependent on the interaction between the transitivity of both the verbal-nominal and the inflecting verb and on function of the entity on which the predication is made. These impact the use of referential marking with an argument in A function, admitting multiple

variations; it is optional if an NP expresses the argument, and only 'intransitive verbal-nominals' can receive it, with the 'stative' type requiring ablative suffixing first.

In spite of some similarities, variations in the use of both spatial and referential case in Mangarla do not follow the Nyikina system, which illustrates an agreement process which is not as simple as 'add referential ergative when predicated of A function'. A range of features and the complex interactions between them may play a part in what otherwise looks like an *ad hoc* arrangement in Mangarla.

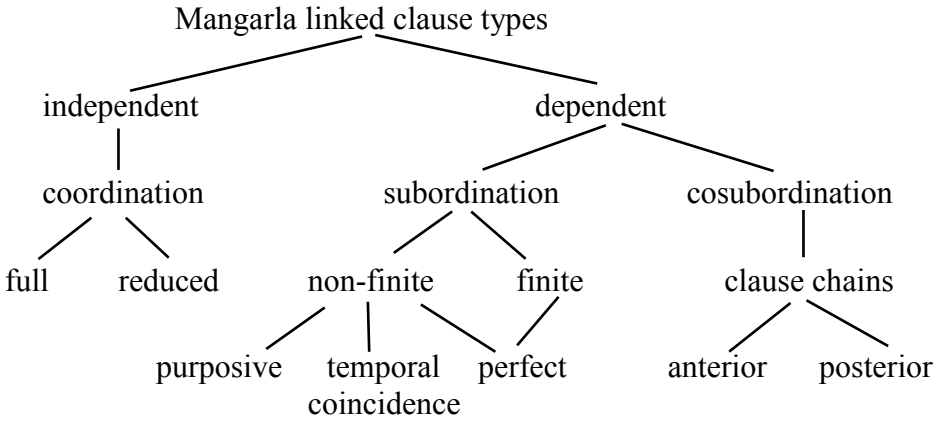
The choice between locative and ablative case on secondary states is syntactically determined in Nyikina, while in Mangarla, it seems to be lexically determined. Those describing upright stances select the locative, while those which do not describe upright stances usually take the ablative. However, derivation in this way seems to be a lexical pre-requisite if referential case is to be used on some secondary predicates, and while referential case can be added to both the locative and the ablative, it seems to be optional (12.126 - perhaps, as in Nyikina, this is due to the presence of an case-marked subject NP).

The great variation in the suffixing of secondary predicates creates problems in analysis and potentially indicates that, as with the use of the oblique2 clitic (§6.1.1.4), different speakers apply different rules, possibly under the influence of dominant languages in the area and also that this grammatical feature may be changing, as with other aspects of case marking (§9.2.3). Additionally, the complex semantics and multifunctionality of members of the action/manner nominal subclass blur the boundaries between nominal and verbal categories.

13 Clause combining

Complex events in Mangarla can be expressed by a range of strategies including the complex verb formed from a nominalised verb and the *-kan* auxiliary verb (§7.2.2.2) and the use of nominals as secondary predicates (§12.4). This chapter is concerned with multi-clause sentences containing more than one predicate in a range of constructions involving coordination, cosubordination and subordination. Linked clause types, excluding clausal complements, are outlined in Figure 13.1.

Figure 13.1 Linked clauses in Mangarla complex sentences



Coordination (§13.1) involves the symmetric linking of units of equal syntactic status, *i.e.* [-dependent, -embedded]. In Mangarla, coordination is asyndetic, achieved through the juxtaposition of two fully independent clauses linked only by sentence prosody (§13.1.1). One clause, usually the second, expands the other or one of its constituents by providing additional information. When the subject of both coordinands is the same, the BP complex and coreferent NPs can be deleted in one to form a reduced clause coordination (§13.1.2).

Cosubordinate constructions (§13.2), are asyndetic clause chain constructions (CCCs) which describe a series of sequential or simultaneous activities performed by the same subject. Only one clause in the chain is syntactically independent; those linked to it contain non-finite verbs and are unable to stand alone, but do not function as arguments or modifiers of the independent clause. They are distributionally dependent as well as grammatically dependent for the specification of of tense, aspect and modality (TAM), as well as the registration of arguments, *i.e.* [+dependent, -embedded] (Foley and Van Valin 1984, Foley and Olsen 1985, Haspelmath 1995, Kroeger 2004).

A distinction is made between anterior CCCs which express the dependent clause before the finite clause (§13.2.1) and posterior CCCs (§13.2.2) where it is expressed in sentence-final position.

As 'general modifying subordinate clauses' (Nordlinger 2006), subordinate clauses function as both relative and adverbial clauses, *i.e.* [+dependent, +embedded]. As these functions are sometimes difficult to distinguish, they will be discussed together (§13.3).

Subordinate clauses are defined according to verbal inflection. Most contain a verb which employs the same non-finite morphology as CCCs, but differ from them by adding a case-complementiser that indicates its temporal or rational link to the superordinate clause or one of its participants. Three types are distinguished: purposive (§13.3.1), temporal coincidence (§13.3.2) and temporal anteriority or perfect (§13.3.3). Perfect clauses also occur with finite verbs marked by the same complementiser (§13.3.3.2).

The same types of subordinate clause also function as ascriptive predicates (§12.2.2) and as clausal complements selected by predicates of information transfer, cognition, and perception, when they can be conjoined using the nominal conjunction *-pa* (§13.4.2). The use of complementisers can, however, be slightly more relaxed in this function. The same predicates can also select independent clauses as complements containing finite verbs (§13.4.1).

Table 13.1 shows eight different constructions examined in this chaper and the degree to which each shares features with the others. As most types generally occur in one prosodic sentence and contain at least one independent clause, only the features of the additional 'linked' clause(s) are shown in this Table. Dark-shaded cells indicate a defining characteristic of the construction, while features which do not occur are unshaded. Lighter shaded cells indicate that a BP complex is not required or not typical of the construction but has been found to occur in some contexts. As noted in §6.2.2 speakers sometimes use multiple BP complexes where they are not required.

Table 13.1 Complex sentence types

	construction	linked clause contains:			
		BP complex	**finite verb**	**non-finite verb**	**morphol. link to main clause**
cosubordination	clause chains				
subordination	purposive				
	co-temporal				
	perfect				
	perfect- finite				
	finite clausal complements				
coordination	full clauses				
	reduced clauses				

13.1 Coordination

Coordinated clauses describe complex events or expand clauses and their constituents. With no formal means to express clausal conjunction or disjunction, coordination in Mangarla is effected by the juxtaposition of syntactically and semantically independent clauses, containing a finite verb and a BP complex registering arguments (§13.1.1). However, when each coordinand has the same subject, the BP complex (and coreferent NPs) can be omitted from one, creating a reduced coordinate clause (§13.1.2).

13.1.1 Full clause parataxis

Coordinated sentences are differentiated from multiple simple sentences by their prosody. Intonation patterns in Mangarla are similar to those described for English (Chafe 1988). Independent clauses are generally marked by a clear final downward inflection often followed by a relatively long pause. This 'period intonation' signals the end of an utterance/idea and also characterises the end of a complex sentence. In contrast, internal clause boundaries in complex sentences mostly involve 'comma intonation', which consists of a range of pitch contours such as 'a rise, a rise-fall, a level continuation or even a partial fall' (p. 9). In Mangarla, this may or may not be followed by a brief pause, and all non-falling contours may be accompanied by a considerable lengthening of the final vowel, often indicating temporal duration.

Sentences are often framed by particles such as *pantangkaju* 'then'/'after that' or *an* 'and then' at the start of an utterance, and *kakurtu* 'finish' or a loan such as *yurayit* 'alright' at either end. Examples from Jarlmadangah in this section contain no pauses separating the clauses, but comma intonation is used. The final clause in each series concludes with 'period intonation' and the sentence particles which embrace (13.1) reinforce its status as one sentence.

13.1 *yurayit, [pantangkaju wani-nyinya=ngarni]*
alright(K) [after.that be-NARPST=1PL.EX.S]

[pirra=ngarni ya-ninya kartiyarti] ningarra=wun
[bush=1PL.EX.S go-NARPST child.PL] true=WELL
'So, we used to stop there and as children we would go round in the bush, true.' (1M9)

13.2 *[wurna=ni ya-ninya] [warlu=ni murni-ninya]*
[move.off=3PL.S go-NARPST] [fire=3PL.S gather-NARPST]
'They went off and gathered firewood.' (Ngi59)

Nominal-headed clauses, which require no BP complex, can also be coordinated by juxtaposition, such as the comparative in (13.3). Although their intonation pattern is a matter of conjecture, examples from McKelson (1974) are included because the translations given indicate their complex nature and the symmetry of expression in examples such as (13.3) also implies conjunction. Sentence (13.4) shows a nominal-headed clause conjoined with a verbal clause.

13.3 *wandyira yirdany, wandyira gungu*
[wanyjirra yirtany] [wanyjirra kunku]
[other long] [other short]
'This thing is more long than that thing.'
(*lit.* 'Another is long, another is short.') (McK:47)

13.4 *[pantu warlu parra~parra] [kampa=nyjurruny=kulu]*
[MED fire heat~RDP] [burn.IMP=1PL.IN.O=ANTIC]
'That fire is hot and might burn us.' (G131)

There is no requirement for juxtaposed clauses to carry the same verbal inflection or have coreferent participants. Each verb in (13.5-6) has the same time reference but is in a different mood and has a different subject. Most are adversative (Haspelmath 2004) or contrastive (Longacre 1985) types, translating as 'but', as when one counterfactual clause is juxtaposed with an indicative clause (13.5) but can can include 'frustration' (Longacre 1985) where an expectation is reversed (13.7).

13.5 *[wajarri=rna=ngka marra-nta wurna-pirri-ya] [nyuntu=n ya-na]*
[NEG=1SG.S=2SG.OBL say-PSTIRR move.off-PURP-EP] [you.SG=2SG.S go-PST]
'I didn't tell you to go, but you went.' (G30)

13.6 *[ngarnti-na=ni-ya=la] [rajin nga=inya yu-ngkama]*
[solicit-PST=3PL.S-EP=3SG.OBL] [ration(E) CAT=3PL.OBL give-PSTIRR]
'They asked him for them (but) he didn't give them rations.' (FKNgi64-5)

13.7 *guli yanga bungamana, wardili binyanidyi yi*
[kuli-yangka pu-ngkama=rna] [wartili-pi-nya=niji]
[anger-SRC hit-PSTIRR=1SG.S] [prevent-AUX-PST=3PL.S>1SG.OBL]
'Because of the swearing, I was going to hit him, but they stopped me.'
(McK:52)

Disjunctions ('or') are not a separate type. Those which propose alternative possibilities and are translated as disjunctions are simply coordinations involving two negated clauses (13.8), or both containing the particle *kamurra* 'uncertain' (13.9).

13.8 *[wajarri mil-ka=n=kulu], [wajarri karti-ma-rra=n=kulu]*
[NEG eye-AUX.IMP=2SG.S=ANTIC] [NEG hold-AUX-IMP=2SG.S=ANTIC]
'Don't you look at it or (/and don't) touch it.' (2sen51)

13.9 *[kamurra ngarrungu=na paja-nku] [kamurra kuwi=na paja-nku]*
[uncertain person=3SG.S bite-FUT] [uncertain meat=3SG.S bite-FUT]
'Maybe it will bite a man or (/and) maybe it will bite an animal.' (PSan55-57)

McGregor (1988b) outlines the functions of parataxis in Kuniyanti (Gooniyandi) and makes some generalisations about the order in which the clauses are expressed. Under **clause expansion**, types include extension, elaboration, and enhancement. In contexts where events have a clear temporal order, the clause order is generally iconic (*i.e.* reflects

that temporal order with the action described by the first verb being performed prior to the commencement of the other(s), *e.g.* 13.2). Clauses which add information generally occur after that which establishes the context, although exceptions to this do occur, and sometimes functions are ambiguous.

Extension involves the addition of something new to the first clause (13.1-2, 13.4), or an alternative to replace a non-occurring situation (13.3, 13.8-9). A replacement action is expressed after the non-occurring one.

Elaboration of an event is made by providing further description or specification such as restating (13.10), filling in details (13.11) or clarifying (13.12). In this type, the elaborating clause follows the one being expanded. The second clause may or may not contain a gain or loss of information.

13.10 *[wajarri mininy-pa=n=kulu]* *[kawurtu-rra=la]*
[NEG language-AUX.IMP=2SG.S=ANTIC] [finish-IMP=1PL.IN.S]
'Don't talk, we have to keep quiet.' (G59-60)

13.11 *[pantu kuwi marntu=na jarri-nya]* *[ngarlu-pu-n nga=na]*
[MED meat rotten=3SG.S INCH-PST] [stink-AUX-PRES CAT=3SG.S]
'That meat has gone off, it stinks.' (G139)

13.12 *[kuwi=na kurna-nangka nga=na yaly-ju-n]*
[meat=3SG.S ingest-PST.SRC CAT=3SG.S lick-AUX-PRES]

[lakapa=na kurna-n]
[fat=3SG.S ingest-PRES]
'Having eaten meat, she is licking her finger, eating the fat.' (PSh19-20)

Enhancement of a clause involves the addition of circumstantial information such as temporal setting (13.13), purpose (13.14), manner (13.15), and anticipation (13.16-18). Again, the order of the two clauses is either iconic (13.13) or additional information follows the event in focus (13.14).

13.13 *[wanyjirra-ja=rna parti-nya Derby-karti]* *[ngayu=rna warrkam*
[other-LOC=1SG.S go-PST placename(E)-ALL] [I=1SG.S work(K)

marrja]
powerful]
'When I went to Derby the other day, I worked hard.' (A63)

13.14 *[kartu=ni-ya purrku pantu yita-ka-nya]*
[child=3PL.S-EP old.man MED give-AUX-PST]

[purlka-ka-nku=rtiny nga=na]
[big-AUX-FUT=EXPECT CAT=3SG.S]
'They gave the child to the old man so he would raise it.' (H6)

13.15 *[wani-nya=ni jitany] [jata=wun janga~janga-artu panjurn-ta*
[be-PST=3PL.S seated] [still=WELL chain~RDP-COM wood-LOC

nga=ni wanti-nya]
CAT=3PL.S be-PST]
'They were sitting down still chained to a tree.' (Ngi56)

Negative imperatives (admonitives) and aversive constructions both employ the anticipatory clitic and can occur as independent utterances (§8.7). However, they are commonly linked intonationally with clauses in a different mood (13.4, 13.8) or the same (13.16-17), when they can be expressed in either order.

13.16 *[wajarri kurnti=n-nga=kulu] [muku-yarri=n=kulu]*
[NEG eat.IMP=2SG.S-EP=ANTIC] [sick-INCH.IMP=2SG.S=ANTIC]
'Don't eat it or you might get sick.' (G72)

13.17 *[pungki=n=kulu] [wajarri karnti=n=kulu panara-ja*
[fall.IMP=2SG.S=ANTIC] [NEG climb.IMP=2SG.S=ANTIC MED-LOC

panjurn-ta]
wood-LOC]
'You might fall so don't climb up that tree.' (G62)

Enhancement can have other functions, which fall under the semantic category of 'implication' (Longacre 1985). In (13.18) the asymmetrical use of *kamurra* expresses conditionality, while consequence is expressed by clauses in iconic order in (13.19), and

in (13.20), causality is expressed in the final clause. Causality is primarily conveyed by the source suffix as in (13.7) which can occur in any position (see also §13.3.3), so (13.20) might also be analysed as elaboration (clarification), rather than enhancement.

13.18 *baduna gamura Broome gadi, milganguna*
[partu=rna kamurra Broome-*karti] [mil-ka-ngku=rna*
[go.FUT=1SG.S uncertain placename(E)-ALL] [eye-AUX-FUT=1SG.S

Brumby
Brumby]
personal.name]
'If I go to Broome, I will see Brumby.' (McK:50)

13.19 *banarudyu ñana gunanya, ñalag gunñana*
[panaru-ju nga=na kurna-nya] [ngalak-kun nga=na]
[MED-ERG CAT=3SG.S ingest-PST] [headache-AUX-PRES CAT=3SG.S]
'He drank so much he got dizzy.' (McK:53a)
(*lit.* 'He drank (and so) has a headache.')

13.20 *[nga=ni wani-nyinya panartarti ngarrungarti rantangka]*
[CAT=3PL.S be-NARPST MED.PL person.PL outside]

[rayin nga=ni-ya jarri-nyinya wayitpal-ta]
[fear CAT=3PL.S-EP INCH-NARPST whitefella(E)-LOC]
'Those Aboriginal people stayed away (because) they were afraid of the whitefella.' (Ngi16)

In **constituent expansion**, one clause expands an NP constituent of the first clause (McGregor 1988b). These can often be translated as relative clauses, even though they contain no signs of subordination such as a complementiser. This expansion might be in the form of extension or elaboration. Constituent **extensions** add new information about an entity such as description, expanding on what is known about the referent in a non-identifying manner (13.21). The clauses occur in iconic order (13.21, 13.24).

13.21 *[yita-ka-nya=na]* *[ngurra-ngka-ka-na=na=la* *purrku-ngku]*
[give-AUX-PST=3SG.S] [camp-LOC-AUX-PST=3SG.S=3SG.OBL old.man-ERG]
'He gave her to the old man who married her.' (H5)
(*lit.* 'He gave her to him (and) the old man did in camp with her.')

Constituent **elaboration** involves the characterisation or identification of an entity introduced in another clause. According to McGregor (1988b), identification occurs in the initial clause, to establish the identity of a participant in the following clause. However, in (13.23), the identifying information occurs in the second clause. An expanding clause is always contiguous with the NP it identifies (13.22-23) and the second clause often commences with an anaphoric demonstrative. This may be either the main (13.22) or identifying clause (13.23).

13.22 *[wanyju wayitpal,* *[yini pantu-kura George Wye]],* *[pantu*
[one whitefella(E) [name MED-GEN personal.name]] [MED

wayitpal *nga=na* *wanti-nyarrinya Ngiyingiyi-ja* *mayaru-ja]*
whitefella(E) CAT=3SG.S be-NARPST placename-LOC house-LOC]
'One whitefella, whose name was George Wye, was living in a house at Mowla Bluff.' (Ngi15)

13.23 *[wanyjirra-arti* *nga=ni* *nyalartu* *ngarrungu]* *[nyalartu*
[other-PL CAT=3PL.S PROX person] [PROX

nga=liny *mil-ka-nga* *janyja]*
CAT=1DU.IN.S>3PL.O eye-AUX-PRES today]
'This lot is different, these people we see today.' (2J18)

Example (13.24) could be characterised as either descriptive (extension) or identifying (elaboration). Like (13.22), the NP referring to the common participant is a clause-initial topic, and the non-identifying clause occurs last.

13.24 *[pantu* *ngayu-ngku* *nga=rna* *wirrja-nya]* *[kati-pinya=ni]*
[MED I-ERG CAT=1SG.S put-PST] [cut-AUX.PST=3PL.S]
'They cut down the one I planted.' (G145)
(*lit.* 'That one I planted it, they cut it.')

The second type of constituent elaboration involves characterisation of an entity by giving a more detailed description of it. Clauses which characterise occur as the second of two clauses. Mangarla employs clauses in this function infrequently. More often, apposed NPs are used as afterthoughts (§9.6). This can also be combined with code-switching.

13.25 *[yalparra kunyarr-ju=na paja-narrinya], **[big one dog]**, [kunyarr*
[again dog-ERG=3SG.S bite-NARPST] [dog

*nga=ngarni waji-ma-narrinya] **[purlka, purlka kunyarr nganarni-kura,***
CAT=1PL.EX.S keep-AUX-NARPST] **[big big dog we.all.EX-GEN**

kampaja-kura-pa wulu-kura, kampaja-kura-pa wulu], [purlka kunyarr]
mother-GEN-and father-GEN mother-GEN -and father] [big dog]
Later the dog would get it in its mouth, a big dog. We kept a big dog, our big dog, mother's and fathers, mother's and father's. It was a big dog.
(1P19-20)

Paratactically coordinated clauses occur frequently in Mangarla narratives, where speakers will list a series of related activities (13.26), or repeat the same one without pauses (13.27). Both types have the same rising tone and lengthened clause-final syllable on all but the final clause showing duration or repetition of the event.

13.26 *[parti-nyarrinya=rna] [kapa-narrinya=rna] [wani-nyarrinya=rna=awu]*
[go-NARPST=1SG.S] [sit-NARPST=1SG.S] [be-NARPST=1SG.S=EMPH]

[wanyjirra-ja ngapa nga=ngarni kapa-narrinya]
[other-LOC water CAT=1PL.EX.S sit-NARPST]
'I used to travel, and then sit down and stop for a while, and then we'd camp at the next water.' (1J115-118)

13.27 *[yaji-pinya=ngarni=jinya] [yaji-pinya=ngarni=jinya]*
[wait-AUX.PST=1PL.EX.S=3PL.OBL] [wait-AUX.PST=1PL.EX.S=3PL.OBL]

[yaji-pinya=ngarni=jinya jurturru]
[wait-AUX.PST=1PL.EX.S=3PL.OBL ongoing]
'We waited and waited and waited for them, day after day.' (1M77)

A single clause may also be repeated in rapid succession, each instance decreasing in volume until the speaker is out of breath (13.28). These techniques describe successive events (13.26) or a single activity that is repetitive, or ongoing (13.27-28).

13.28 *[wani-nyarrinya=ngarni] [wani-nyarrinya=ngarni]*
[be-NARPST=1PL.EX.S] [be-NARPST=1PL.EX.S]

[wani-nyarrinya=ngarni-ya]
[be-NARPST=1PL.EX.S-EP]
'We stayed there for a long while.' (2J137)

13.1.2 Reduced clause coordination

A reduced coordinate clause is created when the BP complex and coreferent arguments are omitted from one coordinand in a sentence expressing two events performed by the same subject.[44] Generally, the first clause is fully independent and contains a BP complex and any subject NP (13.29, 13.31).

13.29 *gundana wilga ŋgu malgaru*
[kurnta=na wirlka-ngku] [marlka-arru]
[ingest.PRES/FUT=3SG.S sand.goanna-ERG] [sated-INCH.FUT]
'The goanna eats them till it is full.' (McK:81)

13.30 *[kajalu=rni partu=ngarni-ya] [kurna-nku=rtiny malarri]*
[ahead=towards go.FUT=1PL.EX.S-EP] [ingest-FUT=EXPECT loaf]
'We will go ahead and eat the loaf.' (HTK39)

13.31 *[ngayu-ngku=rna parrpaly-pu-ngku kuwi], [kati-pu-ngku]*
[I-ERG=1SG.S gut-AUX-FUT meat] [cut-AUX-FUT]
'I will gut the fish, cutting it open.' (2sen153)

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[44] Potentially, sentences formed in this way might contain more than two events as they do in related languages where similar constructions are far more common: Pintupi (Hansen and Hansen 1978:219), Ngaanyatjarra (Blake 1987:132, Pyle 2017:197), Warnman (Burgman 2010:115), Kukatja and Wangkajunga (Jones 2011:213-224). However, Mangarla speakers prefer to express a series of more than two activities in non-finite CCCs (§13.2.1) or fully independent clauses.

The predicate in each coordinand is morphologically independent and may optionally select its own non-subject arguments and/or adjuncts. In (13.30), the object *malarri* is selected only by the verb *kurnanku* 'will eat' while in (13.31) both verbs have coreferent objects as well as subjects. Simple or complex verbs may be linked in this way. The verb *kurrkayinungkarrakangku* in (13.32) itself conveys a complex activity (§7.2.2.2).

13.32 *[partu=la]* *[kurrka-yi-nu-ng-karra-ka-ngku]*
[go.FUT=1PL.IN.S] [rise-AUX-INF-EP-MAN-AUX-FUT]
'Let's go (and) pack up and move on.' (HTG184)

Very rarely, the BP complex occurs in the second clause. In (13.33), it is understood that this change in order is for dramatic effect, combining with a strong rise-fall intonation pattern to emphasise the brevity of the stay.

13.33 *[karri-nya], [murl wurta-na=pala]*
[stand-PST] [almost flow-AUX-PST=3DU.S]
'The two stood there briefly, almost continuing straight on.' (Nya20)

The temporal order of the two events is occasionally anti-iconic. A comparison of (13.29) and (13.34) shows that a change in temporal order has no semantic or grammatical effect but may have a pragmatic one of backgrounding the second event which paraphrases or elaborate on the first (13.35), as in some full clause coordinations (§13.1) and CCCs (§13.2.1).

13.34 *[marlka-arru=rna]* *[kurna-nku]*
[sated-INCH.FUT=1SG.S] [ingest-FUT]
'I'll eat till I become full.' (HTD73)

13.35 *[wanyju wanyjirra=na wani-nyinya], [parti-nyinya yulpurru-karra]*
[one other=3SG.S be-NARPST] [go-NARPST early-MAN]
'The other one was here, coming in earlier.' (FK19)

In the same way as juxtaposed independent clauses with their own BP complex (13.27-28), one verb in a reduced clause can be repeated three or four times to indicate iterative or durative aspect.

13.36 *[panara nga=ni wani-nya], [wani-nya] [wani-nya] [wani-nya]*
[MED.LOC CAT=3PL.S be-PST] [be-PST] [be-PST] [be-PST]
'They stayed there for a while.' (2J88)

13.37 *[wuly~wuly-ju-na nga=yarra=rna ngapa-artu-ju]*
[wet~RDP-AUX-PST CAT=1DU.EX.S=RR water-COM-ERG]

[wuly~wuly-ju-na] [wuly~wuly-ju-na] [wuly~wuly-ju-na kakurtu]
[wet~RDP-AUX-PST] [wet~RDP-AUX-PST] [wet~RDP-AUX-PST finish]
'We splashed ourselves with water and kept on splashing each other.'
(2J53-54)

In Mangarla, inflectional categories on each verb in reduced coordinations are always identical, although further research may reveal that differences are possible, as they are in Western Desert languages which allow different aspect marking. Jones (2011:213-224) distinguishes 'same tense' from 'different aspect' types in Wangkajunga, analysing both as a type of serial verb construction (SVC).

In SVCs, multiple verbs act together as a single predicate, in what is conceptualised as a single event; 'they are monoclausal; their intonation properties are the same as those of a monoverbal clause, and they have just one tense, aspect and polarity value' (Aikhenvald 2006:1). Prototypical SVCs share at least one argument, lack intonation breaks and verbs are contiguous. They more frequently describe events and processes than states, and sequential events occur in temporally iconic order.

In Mangarla, the verbs in these sentences do not constitute a single clause; each event is intonationally and morphologically separable, even if overall the activity is viewed as a single complex event. Neither is there syntactic evidence that they comprise a single constituent, such as the combination preceding the second position BP complex, or their separation signalling a change in meaning, as in Wangkajunga (Jones 2011:214-224). In Mangarla, one verb does not semantically enhance the other and the omission of one does not alter the meaning of the other. Verbs are rarely contiguous. Commonly, the BP complex separates them (13.30, 13.32, 13.34) or elements such as NPs (13.29, 13.31) or particles (13.33) can intervene and modify each verb independently. Although intonation varies, they do not have the intonational properties of monoverbal clauses. Most predicates occur in separate intonation units, even if contiguous.

The atypical variations described above would not be expected in SVCs; nor would the use of synonymous or near synonymous verbs to paraphrase or elaborate. Whether or not a SVC can involve the repetition of the same or synonymous verbs to convey aspectual information is disputed, but some claim it occurs in stylised forms in only 'a few productively serialising languages' (Aikhenvald 2006:21, 30). This is one of the more common functions of these constructions in Mangarla (13.36-37).

Unlike cosubordinate clause chains, the predicates in reduced clause coordinands show no syntactic dependence. Their subject and the BP complex which registers it are simply deleted under identity with those of the other coordinand.

13.2 Cosubordination - clause chains

Clause chains are cosubordinate constructions which combine multiple clauses, one of which bears the bulk of the grammatical burden in the sentence, and at least one other depends on it for certain grammatical information, which in Mangarla, is argument registration and/or the specification of TAM. Despite their grammatical dependence, these clauses show no signs of embedding or relational marking; they have no complementiser, conjunction, switch reference nor serial verb markers.

Used in the context of long narratives, clauses linked in this way may have simple or complex verbs, with the same or different transitivity values. The independent clause may also contain a non-verbal predicate. In such instances, both clauses may lack TAM and/or BPs and the missing grammatical information is interpreted pragmatically. A subject coreference constraint applies to all clauses in the series but non-subject arguments and adjuncts need not be shared. NPs expressing participants are generally elided but any subject NP usually occurs in the independent clause with the BP complex. Where relevant, the order of events described is generally iconic.

Verbs in clause chains usually occur in separate intonation units. Boundaries between clauses are usually clearly marked by the rise-fall intonation pattern described in §13.1.1, by interclausal pauses, shown by commas, and/or other elements.

Anterior (§13.2.1) and posterior (§13.2.2) clause chaining occurs (Haspelmath 1995:22). In anterior CCCs, the independent verb occurs clause-finally, while in posterior CCCs, it precedes dependent clauses.

(13.38) shows an anterior and (13.39) shows a posterior CCC. In examples in this section, dependent verbs are bolded and the finite clause is bracketed.

13.38 ***laju-nu muku-nu*** *panara=wun,* *[paru=Ø* *muku-na]*
dig-INF club.AUX-INF MED.LOC=WELL [lower.back=3SG.S club.AUX-PST]
'He dug it out and bashed it right there, he bashed its lower back.' (HTG75-6)

13.39 *[wani-nyarrinya=ngarni* *panara* *kakurtu]* *jitany* *nganarni*
[be-NARPST=1PL.EX.S MED.LOC finish] sit.down we.all.EX

wani-nyu ***wani-nyu*** ***wani-nyu*** ***wani-nyu*** ***wani-nyu*** *kakurtu*
be-INF **be-INF** **be-INF** **be-INF** **be-INF** finish
'We stopped there, okay; settled there for a long while.' (2J80-81)

Anterior CCCs may have a tight or loose syntactic bond. The key differences between the two are presented in Table 13.2.

Table 13.2 Features of dependent clauses in cosubordinate constructions

dependent clause			***shared elements***				***position***		***timing***	***mono-clausal***
			subject	***BP***	***TAM***	***O/OBL/ adjunct***	***first***	***last***	***iconic***	
non-finite	**anterior CCCs**	**tight**								?
		loose		*						
	posterior CCCs			*						

* Occasionally a second, redundant, BP complex occurs in a dependent clause.

? The uncertain status of these constructions is discussed in §13.2.1.

Dark shading indicates a characteristic feature while lighter shading indicates an optional variation. An unshaded cell indicates a feature which is not attested. Shared elements are generally expressed in the independent clause.

Variations in the bond between the two clauses may be explained by semantic/pragmatic factors and differences in the level of of clause linkage. In Role and Reference Grammar, the clause is divided into layers, the primary ones shown in Figure 13.2. Each layer is

modified by a set of operators given in Table 13.3 (Foley and Van Valin 1984, Foley and Olsen 1985, Van Valin and LaPolla 1997, Van Valin 2005).

Figure 13.2 The layered structure of the clause

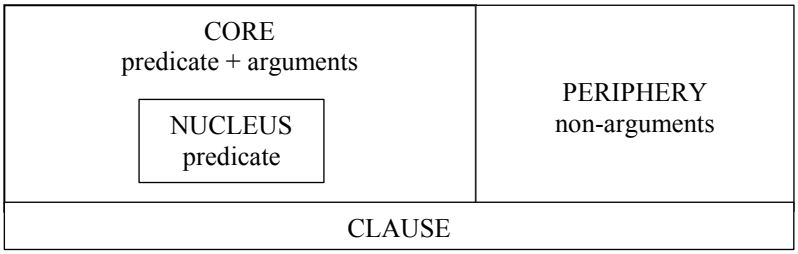

Table 13.3 Operators in the layered structure of the clause (after Van Valin 2005:9)

Nuclear operators (modify the action without reference to participants)

aspect

negation

directionals (modifying orientation of the action)

Core operators (modify the relation between a core argument and the action)

directionals (orientation/motion of participants)

event quantification

modality (root modals e.g. ability, permission, obligation)

internal negation

Clausal operators (modify the clause as a whole)

status (epistemic modals, external negation)

tense

evidentials

illocutionary force (specifies the type of speech act)

The linking of units, or 'juncture', can occur at any level: nuclear junctures are the most tightly bound with two or more predicates combining to share one set of arguments; in core level junctures, multiple predicates each select their own arguments; clausal junctures combine full clauses and are the most loosely linked. All operators above the level of juncture are shared and cannot be independently specified. 'In a cosubordinate linkage at a given level of juncture, the linked units are dependent upon the matrix unit for expression of one or more of the operators for that level' (Van Valin 2005:201).

Mangarla's cosubordinate constructions have junctures at all three levels, although some examples are not easy to categorise due to a limited data set and the pervasiveness of zero anaphora. For example, few or no tokens occur which test the scope of negation, modality, or non-declarative illocutionary force. Others are ambiguous or contradictory. Those referred to as 'tight' in Table 13.2 exhibit a nuclear juncture, whole those referred to as 'loose' generally have a core juncture. However, further data is needed to confidently distinguish between CCCs with core and peripheral junctures. Semantic and pragmatic factors also influence these constructions. For example, those with nuclear junctures invariably contain an intransitive verb of motion, and some variations can be attributed to a paraphrasing or clarifying function.

13.2.1 Anterior clause chains

Anterior CCCs express dependent verbs at the start or middle of the series (hence the term 'medial' verbs), while finite verbs are referred to as 'final' verbs due to their position at the end of the chain (*e.g.* Thurman 1975, Longacre 1985, Haspelmath 1995, Kroeger 2004, Sarvasy 2015). The final clause also contains the BP complex.

13.40 ***parti-nyu*** *[kaniny nga=yarra kapa-na]*
go-INF [below CAT=2DU.EX.S sit-PST]
'We two went and stayed down below.' (2J107-8)

Sentences formed in this way may consist of as few as two clauses or up to a dozen, some with repeated verbs. CCCs have the potential to form long chains when describing the stages of a narrative which might occur over a lengthy period of time, in a kind of episodic paragraph. Commas show pauses which frequently separate clauses in the chain. However, this is not always the case and other elements can also intervene between the clauses, such as an argument of one/both verbs (13.41-42) or adverbial information such as the directional NP *kaniny* in (13.40).

13.41 *yurayit yalparra-ngu* ***kurrka-yi-nu-ng-karra-ka-ngu*** *ngurra-karti*
alright(K) again-ABL **rise-AUX-INF-EP-MAN-AUX-INF** camp-ALL

nganiji-karti kuwi-karti, ***parti-nyu,*** ***kapa-nu,*** *yala-ngka=wun*
whatsaname-ALL meat-ALL **go-INF** **sit-INF** DIST-LOC=WELL

nguwi-nu *juka ti* ***ka-ngu****, pirikpat-tangka-ju kuwi-karti-ju*
return-INF sugar(E) tea(E) **carry-INF** breakfast(E)-SRC-ERG meat-ALL-ERG

yarrkal-pu-ngu yarrkal-pu-ngu yarrkal-pu-ngu *[panarta*
hunting-AUX-INF hunting-AUX-INF hunting-AUX-INF [MED

kuwi-n=ngarni-ya yarrkal-pu-ngarrinya nganarni-ji-ya]
meat-EP=1PL.EX.S-EP hunting-AUX-NARPST we.all.EX-ERG-EP]
'Later on, we'd shift camp to whatsaname, to a hunting ground, (we'd) go and stay far away, returning, (we'd) take sugar and tea, and after we had breakfast we would go, on a long hunt for meat and we would kill that meat.'
(HTG213-219)

NPs, when present, appear to be assigned case by the verb which heads the clause in which they occur. In (13.41), the NPs [*juka, ti*] and [*panarta kuwi*] are unmarked absolutive objects of *kangu* and *yarrkal-pungu* respectively. In examples with only intransitive verbs, such as (13.40), any subject NP would be in the absolutive, but with verbs of mixed transitivity, the subject NP is typically expressed in a clause containing a transitive verb and assigned ergative case. In (13.41), the shared subject NP is expressed once, in the final clause, where it is assigned ergative case by the finite verb *yarrkal-pungarrinya*. The secondary predications (*pirikpatangkaju, kuwikartiju*) in the preceding non-finite clause also receive ergative marking from their transitive head, *yarrkal-pungu*.

At times, the use of the BP complex varies. It can be omitted for different reasons. For example, when the catalyst is absent and *=Ø* represents third person singular (13.38) rather than the alternative *=na* (13.45). Similarly, when the controlling clause is non-verbal, it requires no BP complex as in (13.42) where the subject coreference requirement is met by the inclusive pronoun in the non-verbal clause. Occasionally, a second BP complex occurs in the dependent clause (13.43). This is not common, but speakers sometimes add BPs in discourse where they are not grammatically required (see §6.2.2).

13.42 ***jiya-nu*** *nyuntu [ngaliyarra kulu-ngka]*
follow-INF you.SG [you&I together-LOC]
'(Me) following you, we'll go together.' (HTS56)

13.43 *purnkurr-ja=ngarni* ***waji-ma-nu****,* *[yarrkal=ngarni parti]*
shade-LOC=1PL.EX.S **keep-AUX-INF** [hunting=1PL.EX.S go.PRES]
'We keep it in the shade when we go hunting.' (2R14a)

Anterior CCCs are mostly used to progress a narrative adding new actions, but they sometimes provide background information to amplify the main event (13.38, 13.42) or give contextual information (13.43), functions more often expressed in posterior CCCs (§13.2.2).

A complete analysis of CCCs cannot be made without demonstrating the scope of overtly marked clausal operators such as negation, evidentiality and mood. Although these are commonly found in coordinations, their absence in CCCs implies a core juncture. The independent modification of a clause by oblique constituents, such as locational, temporal and action/manner NPs (13.40-41, 13.43) which occur in the periphery of a core (Van Valin 2005), also indicates that the juncture in most examples is at the core level or above. However, a handful of examples seem to have a tighter juncture.

Unlike previous examples, (13.44-45) lack clearly defined clause boundaries. Like SVCs with nuclear junctures in Western Desert languages, their verbs are contiguous, they have the same prosodic properties as a mono-verbal clause and they appear to place restrictions on the expression of nominal arguments (Goddard 1988, Pyle 2017). In contrast to (13.41-42), where object NPs are expressed in the same clause as the verbs which select them, the placement of the non-subject NP after the intransitive verb in (13.44) indicates that the argument structure of the two verbs has merged in a nuclear juncture.[45]

13.44 ***ma-nu-****nga* *[kulpa-nya=pala* *mangarri],* *mayi*
get-INF-EP [come.back-PST=3DU.S veg.food] veg.food
'They two fetched food.'
'They two got it and returned with food. (2J93)

[45] Alternatively, the NP may be the dative (also unmarked) accessory of *kulpanya* (shown in the alternative translation) rather than the absolutive object of a complex predicate. If so, the 3SG.OBL clitic, *=la*, has been omitted, not uncommon with inanimates. In (13.45), the clitic has not been omitted but, as both verbs can select a dative argument, it is ambiguous as registering a combined argument or only that of one verb.

13.45 ***yapi-nu*** *[nguwi-narrinya=na=la]*
winnow-INF [return-NARPST=3SG.S=3SG.OBL]
'She would shake the dirt out and then come back with it.' (HTK34)
'?She would come back with it clean.'

Potentially, these few examples represent a distinct subtype in Mangarla. Similar constructions in Nyangumarta (Sharp 2004:237) and Warlpiri (Nash 1986:45) are classified as verbal compounds with the nominalised verb acting as a preverb/participle (Simpson 2001). The boundary between the two words is weakening in these languages and argument structures are merging. In certain cases in Warlpiri, the combinations have become lexicalised with specialised rather than compositional meanings. Importantly, the inflecting verb is restricted in both languages to a few semantic classes, including motion.

Simpson (2001), and others cited therein, outline a pathway of grammaticalisation that starts with a bi-clausal participal-verb combination where non-subject arguments occur in the clause containing the verb that selects them. Free word order gives way to a preference for placing the participial phrase before the verb and the development of a periphrastic construction, in which the sequential meaning is lost. In the fourth stage, the combination becomes a monoclausal complex predicate which jointly assigns case to the subject, before becoming a morphological word, incorporating non-subject arguments of both roots allowing them the freedom to occur anywhere. Participle-verb combinations in Warlpiri mostly occur in the latter stages of this pathway.

However, in Mangarla, examples like (13.44-45) which are not split by other elements are the exception. Very few occur, all from one speaker and a bi-clausal interpretation where consecutive events have equal focus always seems possible. Therefore, rather than propose a separate construction for a few ambiguous examples, I suggest that the tight juncture indicated is a natural consequence of frequently occurring event-pairings expressed by CCCs and topic chains (§13.2.2), such as those involving movement.

They may represent a transitional type on the path toward lexicalisation but it seems that Mangarla has not travelled as far along this path as Warlpiri, with most examples located in the first two stages, and only these are perhaps a little further along.

Mangarla speakers prefer to convey associated motion with the complex verb described in §7.2.2.2, where the finite verb *kanga* 'carry' is used as an auxilary verb to re-verbalise nominalised verbs, optionally inflected with the manner suffix, *-karra*. This construction may have been borrowed from Walmajarri, where the process is more productive. That language employs two other auxiliary verbs in similar constructions, *-karr* 'place' and *-kuji* 'cause' (Hudson 1978:49), semantic types also common in Western Desert SVCs but not found in Mangarla (although the verbalising auxiliary verb is cognate with Walmajarri's *-karr*). These verbs appear to have completed a similar process to that outlined by Simpson (2001) for Warlpiri.

Subordination is also used to express consecutive actions. These mark the non-finite subordinate verb with a complementiser. In both Walmajarri and Warlpiri, this complementiser is homophonous with the locative. It marks the prior event and indicates subject control. In Mangarla, where the locative performs this function only with action/manner nominals, particularly as secondary predicates (§12.4), the source suffix has become specialised in signalling temporal anteriority with no control restrictions (§13.3.3).

In Walmajarri, when the complementiser is omitted, the infinitive 'functions like a main verb in dependent clauses in discourses' and the event is not necessarily completed before the event in the finite clause (Hudson 1978:112). These constructions strongly resemble Mangarla's CCCs, particularly posterior chaining types.

13.2.2 Posterior clause chain constructions

In posterior CCCs, the independent clause is not the final clause in the sentence. In Nungon, a Papuan language, these 'non-canonical' CCCs can 'either end in a medial clause instead of a final clause, or include one or more medial clauses postposed after a final clause' (Sarvasy 2015:669). This type often has a pragmatic function such as adding information to elaborate (13.46) or clarify (13.47), and to restate or summarise (13.48). As with coordinations which do the same (§13.1.1), this can be accompanied by code switching.

13.46 *[wuly-ju-narrinya=ngarni-ya=rna nimarrangka-ju]* ***wuly-ju-nu***
[wet-AUX-NARPST=1PL.EX.S-EP=RR hand-ERG] **wet-AUX-INF**

parrily-pu-ngu
alert-AUX-INF
'We would wet ourselves, splashing with our hands, to wake up'. (2R6)

13.47 *[wajarri=ngarniny wayitpal-tu letim-ka-narrima*
[NEG=1PL.EX.O whitefella(E)-ERG allow(K)-AUX-IPFVPSTIRR

wulu-karti-pa kampaja-karti-pa] near to them nothing,
father-ALL-and mother-ALL-and]

wajarri you know, *marnpa-marta* ***wani-nyu***
NEG close-CPR **be-INF**
'The whitefella wouldn't let us go to our father and mother, you know, to stay closer to them.' (1M50)

In (13.48), the speaker uses non-finite verbs to summarise or restate the initial complex sentence containing a subordinate purposive clause.

13.48 *[ya-nku=na, kuwi-karti muku-nu-pirri],* ***parti-nyu,***
[go-FUT=3SG.S meat-ALL club.AUX-INF-PURP] **go-INF**

kuwi-karti ma-nu
meat-ALL get-INF
'He will go to kill meat, go and get meat.' (HTG3)

This clause expanding and/or paraphrasing characteristic suggests that they comprise separate clauses, a notion reinforced by the repetition of the negative particle in (13.47) which may indicate that its scope is restricted and the juncture is at clause level.

A repeated medial verb can signify duration (13.39) or iteration (13.49). Unlike those which occur earlier in a sentence, sentence-final 'medial' clauses are expressed with the falling tone of period intonation and/or end with sentence particle meaning 'finish'.

13.49 *nyalartu pirra-ngka, nyaltu witi-ju-nu, witi-ju-nu, witi-ju-nu,*
PROX bush-LOC PROX **dig-AUX-INF** **dig-AUX-INF** **dig-AUX-INF**

witi-ju-nu *mayi wanyjirra panta,* ***witi-ju-nu,*** ***witi-ju-nu***
dig-AUX-INF veg.food other MED **dig-AUX-INF** **dig-AUX-INF**

witi-ju-nu, ***witi-ju-nu,*** ***witi-ju-nu,*** ***ma-nu, ma-nu, purl-purl***
dig-AUX-INF **dig-AUX-INF** **dig-AUX-INF** **get-INF** **get-INF** **scratch~RDP**

ma-nu, ngit-tu-nu ***ngit-tu-nu*** *wirrpan, wirrpan*
get-INF **pick.up-AUX-INF** **pick.up-AUX-INF** bush.onion bush.onion

mangarri, wirrpan mangarri, wirrpan mulnyi-yangka,
veg.food bush.onion veg.food bush.onion soil-SRC

[mulnyi-yangka=ngarni-ya witi-ju-narrinya], ***lurrpu-nu*** ***lurrpu-nu***
[soil-SRC=1PL.EX.S-EP dig-AUX-NARPST] **beat-INF** **beat-INF**

mulnyi ***witi-ju-nu*** *pirrparl pirrparl, pirrparl-karra* ***ngit-tu-nu***
soil **dig-AUX-INF** brush brush brush-MAN **pick.up-AUX-INF**
'This one is in the bush, this one we dig, keep digging; that's another bush tucker; keep digging, get it one by one, scratch, get it, pick up one after another: piece by piece, food, bush onions are tucker from the soil; we used to dig them from the ground, beat the ground (to make it loose), dig, clear away the sand, and pick them up brushing away the sand.' (2R32-33)

Only three speakers regularly chain non-finite verbs. Long sequences occur most commonly when describing processes and habitual activities in longer narrations, particularly when hypothetical. In Mangarla, these sequences can have frequent pauses and the intonation pattern can be indistinguishable from narratives consisting of all independent clauses.

The interspersal of dependent and independent clauses in (13.49-50) is fairly typical and as with anterior CCCs, a BP complex is occasionally found in a dependent clause in posterior chaining types (13.50). Most appear to be informal in register and they can always be rephrased as a final clause. In later glossing sessions, informants, third parties, as well as the original speaker, often wish to alter non-finite verbs and make them finite. It was suggested for example that the final verb in both (13.50-51) should be changed to future and present tense respectively.

13.50 *panaru-ngu* ***ngarrji-ma-nu*** *[kanti-nku=na]*
MED-ABL **remove-AUX-INF** [hit-FUT=3SG.S]

ma-nu-ng-karra-ka-ngu*,* *wurna=na*
get-INF-EP-MAN-carry-INF move.off=3SG.S
'He will take it (prey) off that (dog), kill it, and take it with him when he goes off walking.' (HTG134-135)

13.51 *[lul-pu-nga=na]* ***jani-ma-nu***
[pluck-AUX-PRES=3SG.S] **cook-AUX-INF**
'She plucks and cooks it.' (PSh22)
?'She plucks it for cooking.'

As Haspelmath (1995:26) notes, the distinction between subordinate and cosubordinate constructions is sometimes blurred. Both use the same non-finite inflection in Mangarla, and CCCs differ from subordinate clauses only in their lack of a complementiser. For example, the addition of a purposive complementiser to the non-finite verb in (13.51) would result in the alternative translation and the first clause in (13.50) differs from a temporal anteriority adverbial clause only by the omission of the source suffix as a complementiser on *ngarrji-manu* (§13.3.3.1).

When participants are well established, non-finite clauses sometimes occur in a distinct prosodic unit, and in some long sequences, non-finite verbs are difficult to link to an independent clause. Tsunoda (1981:177) also notes that, in Jaru, nominalised verbs are occasionally used participially without the presence of a finite verb. Example (13.52) has all the features of an independent clause, commencing with the sentence particle *pantangkaju* and ending with period intonation. It comes after a digression from the main narrative lasting several clauses and has a resumptive function, reiterating the situation before the interruption. It precedes the excerpt given in (13.41) with the next finite verb occurring in separate prosodic unit, nine clauses away.

13.52 *pantangkaju* ***kapa-nu*** *kankarni, ngurra-ngka.*
after.that **sit-INF** up.top camp-LOC
'After that, (we) sit up top in camp.' (HTG212)

13.3 Adverbial and relative subordinate clauses

Subordinate clauses in Mangarla consist of a verb with a complementising suffix which specifies the relation between the subordinate clause and the main clause or its participants. Three types occur: purposive (§13.3.1), temporal coincidence (§13.3.2) and temporal anteriority (perfect) subordinate clauses (§13.3.3). Each complementiser is identical in form to a nominal case suffix.

All three semantic types occur with nominalised verbs, lacking independent tense, aspect or mood. They consist of the structure: verb-INF-COMP. Only perfect (/causative) clauses can be expressed in a balanced or finite subordinate construction in Mangarla (§13.3.3.1), not unusual for causative constructions (Diessel and Hatterle 2011:26). These have all the features of an independent clause, except that the subordinate verbs carry the same source case/ complementiser as their non-finite counterparts, consisting of the structure: verb-TAM-SRC.

These subordinate clause types primarily function as general modifying subordinate clauses (Nordlinger 2006), performing both relative clause and adverbial functions. As relative clauses, they 'make more determinate or ... supply additional information about an argument in the main clause' while adverbial clauses 'specify the temporal setting of the event depicted in the main clause, or ... make a subsidiary comment holding at the time specified in the main clause' (Hale 1976:79). In Mangarla, this can imply other types of adverbial information or inter-sentential relation, such as conditionality, causality, motivation or intention. While the relative clause interpretation is only available when the two clauses share a participant (and most do), the two functions cannot always be differentiated and often sentences are open to both interpretations.

Temporal coincidence (TC) and finite perfect clauses have no coreference requirements, allowing main and subordinate clauses to select coreferent or disjoint arguments. Purposive and non-finite perfect clauses always have at least one argument in common with the main clause, the function of which is unrestricted in either clause. As with any NP, shared participants can be elided, and when expressed, tend to occur only once, usually in the main clause but this varies according to type. They can also be preposed, and are sometimes repeated.

Elided subordinate subjects, obligatory in purposives but possible in all types, can be freely construed with any semantically compatible main clause argument, have disjoint reference or simply be interpreted as unspecified. Statistically, in all types, the preferred syntactic pivot is an absolutive or other non-ergative main clause argument, but no system of obligatory control or switch reference exists, as in related languages to the south such as Warlpiri (Hale 1976, 1982), Yankunytjatjara (Goddard 1985), and Wangkajunga (Jones 2011).

Subordinate arguments, usually with disjoint reference, can be expressed by NPs, typically adjacent to the subordinate verb. These may be in any function except purposive subject. Core arguments in purposives and most non-finite perfect clauses remain unmarked for case, but are inflected with the relevant complementiser in concord with the verb, the only types which permit complete concord. In TC and finite perfect clauses, core subordinate arguments are assigned case in the same way as main clauses, as are oblique arguments and adjuncts in all four types.

Clitic pronouns do not generally occur in nominalised subordinate clauses, but can optionally register subordinate participants in TC and finite perfect clauses, particularly when the subject is new or in a new function. Homophony of many finite and non-finite perfect verbs makes the analysis of some perfect clauses problematic. The use of BPs is then diagnostic to distinguish finite perfect clauses from their non-finite counterparts, which never have a BP complex.

The position of the subordinate clause is influenced by its function and semantics but the preferred position is at the peripheries of the sentence in temporally iconic order. Purposive and TC clauses prefer to follow the main clause. Perfect clauses show the most flexibility appearing as often before the main clause as after it, although the non-finite type most frequently occurs in sentence-initial position. TC clauses are the only ones not found embedded in the main clause and all types can be preposed for emphasis or foregrounding.

The paucity of unambiguous relative clauses is due to a preference for employing simple case-marked nominals to perform this function. Hale (1982:286) argues that these are a kind of reduced subordinate clause or ‘vague predicational’ ‘in which the complementized nominal would correspond to the argument position associated with the

absolutive and in which the verb is left unspecified, to range over the total set of meanings of verbs which could select the nominal.'

Table 13.4 summarises subordinate clause types and their general features.

Table 13.4 Main features of subordinate clause types in Mangarla

		finite	**non-finite**			
		temporal anteriority	**temporal anteriority**		**purposive**	**temporal coincidence**
	complementiser	*-(y)angka* SRC	*-(y)angka* SRC		*-pirri/-purru* PURP	*-karra* MAN
	oblig. coreference					
	can express subject					
	ergative case on subordinate subjects		McK	Jarlm		
agreement	complete concord		McK	Jarlm		
	with main clause argument (C-comp)					
	indep. BP complex					
function	relative clause					
	adverbial clause	perfect causation conditional	perfect causation conditional		purpose	co-temporal
	clausal complement					
	main clause NP					

As in previous tables, a dark shading indicates a characteristic feature, pale shading indicates a feature which is variable or optional, and no shading indicates a feature which does not occur.

Temporal anteriority or perfect clauses appear to be in a state of flux. Finite perfect clauses only occur in the Jarlmadangah corpus, and ambiguities and overlapping features with the non-finite/nominalised construction are discussed in §13.3.3.2. Nominalised perfect clauses also show variation between the corpora, with McKelson's earlier data more consistent with purposive clauses.

13.3.1 The Purposive

Purposive clauses functioning adverbially provide a motivational link to the main clause event (§13.3.1.1). While most subordinate events potentially occur after that depicted in the matrix clause, purpose clauses do not function primarily to specify temporal conditions on the subordinate clause. In relative clause function, they describe the purpose to which one of the main clause participants can be put (§13.3.1.2). Purposive clausal complements selected by predicates share the features of those in adverbial and relative clause function (§13.4.2).

The purposive suffix, *-pirri* or *-purru* acts as a complementiser almost always marking the nominalised verb,[46] and optionally spreading to additional elements of the purpose clause.

13.3.1.1 Purposive adverbial clauses

The tendency to mark all elements of the subordinate clause (13.54) indicates that the purposive may have once been a construction of complete concord but as with other nominal cases, has become free/head marking (§9.2.3). Clausal particles which typically occur in initial position (*e.g.* the negative *wajarri* in 13.53), never carry the complementiser.

13.53 *yap* *nga=rna* *parti-nya* *warlipartu* *[wajarri* *mil-ka-ngu-purru*
leave.behind CAT=1SG.S go-PST direct [NEG eye-AUX-INF-PURP

pantu jaya]
MED crowd]
'I took off quick smart, so I wouldn't have to see that big mob.' (FK39)

13.54 *manin* *ñana* *inya* *wangu* *mai* *birri* *manu birri*
marnin *nga=na* *yinya* *warnku* *[mayi-pirri* *ma-nu-pirri]*
woman CAT=3SG.S give.PST stone [veg.food-PURP get-INF-PURP]
'He gave his wife money to get food.' (McK:49)

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[46] Purposive clauses functioning as clausal complements (§13.4.2) are more variable in marking the nominalised verb than the relative and adverbial clauses described here.

While it is conceivable that they could occur with no coreferent arguments,[47] all purposive clauses in the corpora, have at least one argument in common with the main clause, often more (13.55-56).

13.55 *bandanga idaganya in Jesus gaṉu birri*
pantangka yita-ka-nya-y=iny Jesus [ka-ngu-pirri]
after.that give-AUX-PST-EP=3PL.O personal.name [take-INF-PURP]
'Then he gave them Jesus to take away.' (McK:RT)

13.56 *[warrimpa=nyjangu=na kari-ka-nu-pirri]*[48] *pat-pu-ngarri=na*
[by&by=INDEED=3SG.S rouse-INF-PURP] bury.in.ash-AUX-IPFV=3SG.S
'He'll bury it in the ashes so he can take it out much later' (HTG98alt)

A purposive clause whose subject is coreferent with the main clause agent usually also has a coreferent non-subject argument (13.56). When a main clause agent is the only coreferent participant, speakers typically omit the subordinate verb and employ a purposive-marked nominal (13.57). No purposive is ever overtly marked in case agreement with a coreferent main clause argument. For example, there is no ergative agreement in (13.56-57). This may be due to free construal of the subject of a purposive clause in Mangarla, as it possibly is in Warlpiri, within semantic limitations (Hale 1982:283), but is also equally likely to be omitted as redundant if subject coreference is a requirement (see footnote 47).

13.57 *nyaltu=ni-ya kankarni-ya wirrja-nga panjurn [wurna-purru]*
PROX=3PL.S-EP up.top-EP put-PRES wood [move.off-PURP]
'In this one, they are putting their things up high in the tree in order to go for a walk.' (PSh182)

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47 Hale (1982:283) gives an example in which all participants are disjoint ('I have brought a blanket in order for the child to sleep.'), but also notes that some Warlpiri speakers reject the nominalised purposive, preferrring a finite subordinate construction. As no examples such as this occur in Mangarla, it is likely that subject coreference is a requirement.

48 The bound pronoun in the subordinate clause is unusual and is probably a consequence of expressing the purposive clause in first position. The majority of purposive clauses do not contain a BP complex.

Any coreferent NP is expressed only once, in the first, usually the main clause (13.54-55, 13.58). In (13.59), the shared NP is extraposed.

13.58 *ñayu ñgu ñanala wira mai uba uba*
ngayu-ngku nga=rna=la wira mayi wupa~wupa
I-ERG CAT=1SG.S=3SG.OBL grind.PRES veg.food bush.onion~RDP

gunanyu birri
[kurna-nyu-pirri]
[eat-INF-PURP]
'I rub the onions to make them edible.' (McK:88)

13.59 *wanyju ngarrungu, panaru purlka-ngku maaja-ngku=na*
one person MED.ERG big-ERG master(K)-ERG=3SG.S

ngunyi-ma-na kaniny-jurra [ma-nu-pirri limpa]
send-AUX-PST below-down [get-INF-PURP police]
'The big boss sent one person down to get the police.' (Ngi31alt)

Purposive clauses never express an overt subject and non-subject arguments are marked in the same way as regular finite clauses, before the optional purposive complementiser is added to mark them as part of the subordinate clause, according to the concentric scoping principle that applies to case marking (§4.1). Hence, in (13.60), the purposive, which has scope over the whole clause, is placed after the locative on the subordinate oblique *jinarlta*.

13.60 *lintij-ju-narrinya=na ngapaliny-pa lintij-pa warnku*
flake.stone-AUX-NARPST=3SG.S spear.thrower-and quartz-and stone

[jinarl-ta-pirri wirrja-ngu-pirri ngapaliny-pa]
[spear-LOC-PURP put-INF-PURP spear.thrower-and]
'He used to make flaked stone spearheads and spear thrower (pegs), to put on spears and spear throwers.' (HTS27)

The most common position for the adverbial purposive clause is after the main clause, as illustrated by the majority of examples in this section. However, as shown in (13.56) which is unusual in a number of ways, it is occasionally preposed.

One example from McKelson (1974) shows a purposive clause apparently embedded within the main clause. In (13.61), the purposive clause occurs between the matrix verb and its allative-marked locational goal *pirtikarti*.

13.61 *gana mara ladyunu burru bidi gadi*
kana ma-rra [laju-nu-purru] pirti-karti
digging.stick get-IMP [dig-INF-PURP] hole-ALL
'Take the digging stick to the hole.' (McK:106)

On occasions, speakers initially use the allative to indicate purpose in a clause containing an un-complementised non-finite verb and later replace it with the purposive. Compare the original allative version in (13.62) with the purposive construction given later in (13.59). Allative marking is also replaced by the purposive in (13.63). The subordinate verb here remains without a complementiser but some speakers mark only the first element of a clause, and the subordinate verb is not always complementised, particularly in clausal complements (§13.4.2).

13.62 *wanyju ngarrungu, panaru purlka-ngku maaja-ngku=na*
one person MED.ERG big-ERG master(K)-ERG=3SG.S

ngunyi-ma-na kaniny-jurra [ma-nu pulijiman limpa-karti]
send-AUX-PST below-down [get-INF policeman(E) police-ALL]
'The big boss sent one person down to get the police.' (Ngi31)

13.63 *wajarri=awu, yinpinya=ni pantu=ni purta-nya nyalara-ja,*
NEG=EMPH spear.PST=3PL.S MED=3PL.S come-PST PROX-LOC

ngarrungu-arti pantarti, [rajin-karti/ -purru japirr-ma-nu]
person-PL MED.PL [ration(K)-ALL/ -PURP ask-AUX-INF]
'"Oh dear me, that lot speared him, those people who came here to ask for rations."' (FKNgi96)

13.3.1.2 Purposive relative clauses

As all purposive clauses share a participant, their interpretation as adverbial or relative is often ambiguous, (*e.g.* 13.54, 13.60). Most purposives which modify NPs are

'autonomous' (Hale 1982:285) purposive marked nominals, as in the next example which occurs in a locative adjunct.

13.64 *mininy-pu-ngarri=na mininy mapu [panjurn mininy-pirri]-ja*
language-AUX-IMPF=3SG.S language good [wood language-PURP]-LOC
'He was speaking good words into the thing for (?speaking/recording) language.' (3Sen3)

In (13.65) the purposive clause is centrally located within the main clause, as one item in a list. It is uncertain if the proximal demonstrative is functioning as the head of the NP or as a determiner in a headless relative clause.

13.65 *pantu panjurn nga=n-nga ya-nku, karrpirna, [nyaltu [laju-nu-pirri,*
MED wood CAT=2SG.S-EP go-FUT shield [PROX [dig-INF-PURP

pirti-pirri]], nganiji, kana
hole-PURP]] whatsaname digging.stick
'You will go (for) that wood, (for) a shield, and this one for digging holes, whatsaname, digging stick.' (HTS52)

The next example shows a 'headless' purposive relative clause which functions as the secondary object of the verb *jurrungkul-man* 'show'. Its NP status is shown by the number marking added after the complementiser. This verb can select a purposive complement (§13.4.2), and without the number marking, the purposive would translate as 'show me how to make things'.

13.66 *kamurra ngayu=nya=n kalpi-ma-nku, purrku, ngujartu panjurn-arti*
uncertain I=1SG.O=2SG.S call.on-AUX-FUT old.man REC wood-PL

*nga=nya=n jurrungkul-ma-nku [[pirti-ma-nu-pirri]-**arti***
CAT=1SG.O=2SG.S show-AUX-FUT [[create-AUX-INF-PURP]-**PL**

*[panjurn-pirri]-**arti]***
[wood-PURP]-**PL**
'Maybe you will come back to ask me, "Old man, remember those trees, will you show me the trees for making things?"' (HTS53)

Examples (13.64) and (13.66) are the only tokens where further nominal morphology occurs after the purposive suffix; since most purposive clauses function adverbially or as ascriptive predicates in non-verbal clauses which do not exhibit agreement. Those in unambiguous relative clause function are rare, and mostly modify singular absolutive NPs (13.65).

Further research is needed to elicit more examples which require agreement or function as obliques or adjuncts. Such research might also reveal whether relative purposive clauses can be discontinuous from their head, as in Warlpiri (Hale 1976:96). This could lead to a revised analysis of (13.66), in which the NP *ngujartu panjurnarti* is the discontinuous head of the relative clause.

13.3.2 Temporal coincidence

The manner suffix *-karra*, which derives adverbials and nominal predicates (§4.3.11) acts as a complementiser on nominalised verbs to indicate that a second event coincides temporally with that depicted in the main or finite clause (§13.3.2.1). When functioning as relative clauses (§13.3.2.2), this clause type describes the state or condition of a main clause participant.

Nominalised verbs suffixed with *-karra*, can be re-verbalised with the transitive verb deriving *kan* auxiliary. These are described as complex verbs in §7.2.2.2.

13.3.2.1 Adverbial temporal coincidence clauses

Adverbial TC clauses are given in (13.67-68). They are head-marking with the complementiser attached only to the verb.

13.67 *panartu-arra=pala ya-na [juju yinpa-nu-karra]*
MED-DU=3DU.S go-PST [song sing-INF-MAN]
'Those two went along singing a song.' (G15)

13.68 *nyuntu-ngku nga=n nya-nya [jitany wani-nyu-karra]*
you.SG-ERG CAT=2SG.S see-PST [seated be-INF-MAN]
'You saw him while he was seated.' (A12)

Mostly, the subject of the TC clause is coreferent with a non-ergative argument in the main clause, such as Si in (13.67), O (13.68) or OBL (13.69). However, occasionally it is coreferent with an argument in matrix A function (13.70). As with purposives, the subordinate TC clause is never marked in agreement with coreferent main clause arguments.[49] For example, there is no agreement on the subordinate verb whose subject is coreferent with the main clause agent in (13.70) or with the oblique in (13.69).

13.69 *nga=rna=la* *wulu-ngka* *mil-mil-ka-ngarrinya*
CAT=1SG.S=3SG.OBL father-LOC eye~RDP-AUX-NARPST

[pirti-ma-nu-karra]
[create-AUX-INF-MAN]
'I watched my father chiselling.' (HTS5)

13.70 *pat-paya-pu-ngku=na* *panarta* *warrimpa-pirri,* *[kuwi* *panartu*
bury.in.ash-burn-AUX-FUT=3SG.S MED by&by-PURP [meat MED

kurna-nu-karra *wanyjirra,* *kajalu-yangka]*
ingest-INF-MAN other ahead-SRC]
'He will bury that one in the ashes (to have) later, while he eats that other meat, from before.' (HTG95-97)

Subordinate subjects can also be unspecified or disjoint in reference from the main clause arguments. In (13.71), the subject of the two subordinate clauses has no coreference with the main clause, while the object of the second TC clause is coreferent with the main clause agent.

13.71 *pirti-ma-narrinya=na=la* *marlpurlu-ja*
create-AUX-NARPST=3SG.S=3SG.OBL baby.carrier-LOC

---

[49] This is in stark contrast to related languages. Warlpiri has a comprehensive system of switch reference, where the *-karra* complementiser indicates that the main clause and the subordinate clause have the same subject. This is also optionally and redundantly marked in agreement with an ergative subject. However, Hale (1982:292) notes that for at least one Warlpiri speaker *-karra* may be construed with either main clause subject or object, and then the infinitival must agree with the controlling main-clause argument. Agreement is also found with a similar construction in Walmajarri (Hudson 1978:36) which also allows multiple controllers.

[ngayu jitany wani-nyu-karra] [nya-ngu-karra]
[I.ABS seated be-INF-MAN] [see-INF-MAN]
'He would work on the coolamon while I would sit watching.' (HTS23)

Disjoint subordinate arguments, including subjects, can be expressed as an NP or free pronoun, assigned case by the subordinate verb, *-Ø* absolutive in (13.71) and ergative in (13.72). Subordinate objects are unmarked (13.67, 13.70), but unlike those in the other two types of non-finite subordinate clause, they cannot be marked by the complementiser in concordance with the verb. Clitic pronouns can also register subordinate participants which are new or whose function changes (13.72). However, these are optional and generally omitted where there is no ambiguity or, as in simple clauses, if expressed in an NP.

13.72 *paju-rra=la nyalara-ja [jitany-ngu-ju* ***ngayu-ngku****=rna=ngka*
strip.AUX-IMP=3SG.OBL PROX-LOC [seated-ABL-ERG **I-ERG**=1SG.S=2SG.OBL

mil~mil-ka-ngu-karra [[ningarra=nyjangu pantu] [nyuntu=nyjangu=n,
eye~RDP-AUX-INF-MAN [[true=INDEED MED [you.SG=INDEED=2SG.S

nila pantu pirti~pirti-ma-nu-pirri panjurn-pirri]]]
clever MED create~RDP-AUX-INF-PURP wood-PURP]]]
'Remove the bark from it while I sit here to see that it is correct and you really know how to carve that wood.' (HTS109)

Most examples given above demonstrate the tendency for subordinate clauses to occur sentence-finally. However, occasionally, the subordinate clause is preposed for emphasis, foregrounding the secondary activity (13.73). No examples occur in which TC clauses are centrally located.

13.73 *[jani-ma-nu-karra] nyaltu=na wani-nyarri*
[cook-AUX-INF-MAN] PROX=3SG.S be-IPFV
'This one is staying here cooking.' (PSh166)

TC clauses are often complex. Two TC clauses are linked by parataxis in (13.71), and in (13.74), the nominal conjunction is used. In (13.72), the subordinate TC clause is headed

by a verb, *mil-ka-*, which selects a clausal complement, itself complex, containing one coordinand with a nominal predicate *nila* that selects a purposive complement.

13.74 *mil-mil-ka-ngku=rna=ngka* *[pirti~pirti-ma-nu-karra]*
eye~RDP-AUX-FUT=1SG.S=2SG.OBL [create~RDP-AUX-INF-MAN]

[paju-nu-karra-pa] *[rirra-pa* *wirrja-nu-karra-pa]*
[strip.AUX-INF-MAN-and] [mouth-and put-INF-MAN-and]

[marlpurlu-pa *pirti-ma-nu-karra]*
[baby.carrier-and create-AUX-INF-MAN]
'I will watch you while you carve and remove the bark, make a sharp edge and carve a coolamon.' (HTS102)

13.3.2.2 TC relative clauses

When a non-subject argument in both clauses is coreferent, a relative clause interpretation is possible. In (13.75), the subordinate clause expands on the matrix object which is repeated, potentially to be in the contiguous with the relative clause. The subordinate subject is left unspecified.

13.75 *pirna, pirna=ngarni-ya* *kurna-ninya* *[pirna-pa kularri*
larvae larvae=1PL.EX.S-EP ingest-NARPST [larvae-and seed.type

wira-nyu-karra]
grind-INF-MAN]
'We ate ants' eggs and seeds, which were ground up.' (1P12)

At other times, the interpretation is ambiguous, shown by alternative translations below (13.76). The unusual occurrence of the manner suffix marking a non-verbal subordinate element, *turnkarra* [heavy.MAN], is taken to indicate adverbial modification, the primary function of this suffix in simple clauses (§4.3.11), rather than concord.

13.76 *mulnyi-ngka, [turn-karra* *wani-nyu-karra],*
soil-LOC [heavy-MAN be-INF-MAN]

mulnyi-ngka nga=rna purlka-arri-nya ngayu
soil-LOC CAT=1SG.S big-INCH-PST I
'On the ground, which was hard, I grew up (sleeping) on the ground.'
'On the ground, doing it tough, I grew up (sleeping) on the ground.' (1R62-63)

13.3.3 Temporal anteriority

Temporal anteriority (perfect) clauses describe events which occur prior to that expressed in the main clause but for which they have continuing relevance. They may also imply causal or conditional relationships. The complementiser always marks the subordinate verb and is identical in form to the source case marker. This suffix has four phonologically conditioned forms (§4.3.7), only two of which occur on verbs, since all inflected verbs end in vowels. However, the others mark nominals in concord with a perfect verb:

-yangka on stems ending in /i/ and /u/ (*e.g.* future tenses *-nku, -ngku*)
-angka on stems ending in /a/ (*e.g.* narrative past tenses *-narrinya, -nyarrinya*)
-tangka on stems ending in C [+ alveolar]
-jangka on stems ending in C [-alveolar] or [+rhotic]

Perfect clauses have two manifestations, non-finite (§13.3.3.1) and finite (§13.3.3.2). The latter is Mangarla's only finite subordinate construction. The former shares features of the purposive and TC subordinate clauses, but also exhibits several differences.

Both perfect types are functionally similar, but formally they can be difficult to differentiate. Finite perfect clauses are, for the most part, clearly distinguishable from the non-finite types by the unambiguous TAM inflections on the subordinate verb, their expression of NPs assigned case by the subordinate verb and a BP complex registering subordinate arguments. However, verbs from certain conjugation classes in past or present tenses are homophonous with non-finite forms after complementisation and the ensuing morphophonological changes, which delete a vowel or segment (§2.3.6).

When verb forms are ambiguous, the speaker's inclusion of a BP complex is used to differentiate the two constructions; the non-finite construction lacks pronominal clitics while the finite construction generally includes them. However, even this diagnostic is not foolproof and speakers see the two types as interchangeable, often using both types

in a complex construction such as a conjoined clausal complement (§13.4.2) and sometimes use non-finite verbs, even when a BP complex is present.

Very few examples of non-finite perfect constructions were collected during the 1990s, with almost all coming from McKelson (1974). In the Jarlmadangah corpus, the finite construction appears to be replacing the non-finite construction. A range of intermediate constructions indicative of change are found: non-finite perfect clauses with regular case marking and finite perfect clauses without a BP complex and so on. Furthermore, the perfect clause seems to be on a path of grammaticalisation to becoming an aspect marker, with some speakers using finite perfect clauses as independent sentences (§13.3.3.2).

13.3.3.1 Non-finite perfect clauses

Adverbial perfect clauses can show temporal anteriority (13.77) as well as the extended implications of prior actions, causation (13.78) and conditionality (13.79).

13.77 *gadi mana anga malulu na dyari*
[karti-ma-nangka] marlulu=na jarri
[hold-AUX-INF.SRC] pre-initiate=3SG.S INCH.PRES
'After being grabbed he becomes a *malulu*.' (McK:99)
'The one who is grabbed becomes a *marlulu*.'

13.78 *wangu dyiraly wiranya anga*
warnku jiraly [wira-nyangka]
stone smooth [grind-INF.SRC]
'This stone is smooth from being rubbed.' (McK:121)

13.79 *badyana anga, ñana gandingu*
[paja-nangka] nga=rna kanti-nku
[bite-INF.SRC] CAT=1SG.S hit-FUT
'If it bites me, I will hit it.' (McK:51)
'I will hit the one that bites me.'

Like purposive clauses, all non-finite perfect clauses have an argument which is coreferent with one in the main clause, with unrestricted function in each. Coreference may extend to more than one participant (13.79) and NPs expressing shared participants generally occur in the main clause. The following text is an excellent illustration of many

of the features described here and shows the construction's use within a short explanatory text.

13.80 *a) yabina nga ñana gadaradya yinbu ña bara ñgu bina*
[yapi-nangka] nga=na katara-ja yinpu-nga parra-ngku pirna
[winnow-INF.SRC] CAT=3SG.S antbed-LOC spear-PRES sun-ERG larvae
'After winnowing, the sun shines on the grubs on the antbed.' (McK:106a)

b) bara nga yinbuña nga, yalbara ñabala yabina
[parra-angka yinpu-ngangka], yalparra nga=pala yapi-na
[sun-SRC spear-INF.SRC] again CAT=3DU.S winnow-PST
'After the sun has dried the grubs, they winnow again.' (McK:106b)
(*lit.* 'After the sun had dried them, the two winnowed again.')

c) yabina nga bina gunanyana ñaruñu dyu
[yapi-nangka pirna] kurna-nya=na ngarrungu-ju
[winnow-INF.SRC larvae] eat-PST=3SG.S person-ERG
'After winnowing people eat the grubs.'/ (McK:106c)
'Having winnowed the grubs, people ate.'

Typically, there is complete concord across all elements of the subordinate clause (13.80b, 13.81, 13.87), although the spread of the complementiser to the subordinate object appears to be optional. While *pulumanuyangka* is complementised in (13.81), the NP *pirna* in (13.80c) is unmarked. Despite the original translation, the placement of the second position BP complex in the main clause indicates that *pirna* is in the subordinate clause in (13.80c).

13.81 *bulamanu yanga gulmiri gana anga ñani gulbanya*
[pulumanu-yangka kurlmirri-ka-nangka] nga=ni kulpa-nya
[bullock(K)-SRC round.up-AUX-INF.SRC] CAT=3PL.S come.back-PST

ñarunardi
ngarrungu-arti
people-PL
'After mustering the bullocks, they returned to the camp.' (McK:50a)

No examples from McKelson (1974) have non-core arguments or adjuncts, but those from Jarlmadangah are marked with regular oblique cases. These also tend to add the complementiser only to the nominalised verb and do not mark subordinate arguments in agreement with it. Alternative translations of (13.83) indicate syntactic ambiguity, of the subordinate clause in adverbial, relative or complement function and the importance of pragmatics in interpretation.

13.82 *[yalparra mininy jarri-nyangka* ***ngayu-ngu****]*
[again language INCH-INF.SRC **I-ABL]**

yalparra nga=rna ngurrja-nku
again CAT=1SG.S talk.about-FUT
'If you want more words from me, I will talk about them later.' (1D105-6)
'Later, I will tell you the words you want from me.'

13.83 *kuwi=n nya-ngku [janyja-****ngka*** *kurnti-nangka]*
meat=2SG.S see-FUT [today-**LOC** enter-INF.SRC]
'You will see (tracks of) prey after it has just gone inside (a hole).' (HTS84)
'You will see (tracks of) prey which has just gone inside (a hole).'
'You will see (that) the prey has just gone inside (a hole).'

Subordinate subjects are often omitted, but may be expressed as an NP in the subordinate clause when disjoint in reference. However, a major point of difference between this construction and other subordinate clause types is the marking of subordinate NPs. I show in §13.3.2 how, when the transitive subjects of TC are expressed by NPs, they are assigned ergative case by the subordinate verb, as are those in finite perfect clauses (§13.3.3.2). However, in all non-finite perfect clauses from McKelson (1974), NPs expressing subordinate agents are not marked by the ergative. Instead they form a constituent with their head which is more tightly bound to the main clause than in other subordinate types. For example, the subordinate subject *parra* 'sun' in (13.80b), is not marked for ergative case, as it is in the main clause of (13.80a). It is simply marked by

the complementiser in agreement with the subordinate verb. (13.87) also shows the subject of a transitive verb treated in the same way.[50]

The nominalised verb and its arguments count as one constituent for the placement of the BP complex in (13.81) and (13.87), but they can also be expressed discontinuously (13.84). While examples (13.78, 13.83, 13.85-86) show perfect clauses in sentence-final position, this is unusual, with most occurring in sentence-initial position in iconic order of events.

13.84 *bulamanu yanga ṉani gulbanya musterem yanga*
[pulumanu-yangka] nga=ni kulpa-nya [majurim-yangka]
[bullock(K)-SRC] CAT=3PL.S come.back-PST [muster(K)-SRC]
'After mustering the bullocks, they returned to the camp.' (McK:50)

Most non-finite perfect clauses have a non-ergative syntactic pivot. However, another unique feature of non-finite perfect clauses is their employment of the ergative as a C-complementiser (§4.3.2.4) when deletion of the subordinate subject is controlled by a main clause agent (13.85). That is, while clause-internal subordinate argument is not assigned ergative case, it can be added to the perfect complementiser on the subordinate verb to signal that the completed activity was performed by the main clause agent.

13.85 *milganyana yawada bunganya anga dyu*
mil-ka-nya=rna yawarta [pungka-nyangka-ju]
eye-AUX-PST=1SG.S horse [fall-INF.SRC-ERG]
'After I fell down, I saw the horse.' (McK:54)

13.86 *milganyana yawada bunganya anga*
mil-ka-nya=rna yawarta [pungka-nyangka]
eye-AUX-PST=1SG.S horse [fall-INF.SRC]
'I saw the horse which had fallen down.' (McK:54)

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[50] One Jarlmadangah speaker uses an intermediate construction. In some clausal complements, he employs non-finite perfect clauses, and marks the transitive subordinate subjects with the ergative, in the same way as simple finite clauses and finite perfect subordinate clauses.

While ergative agreement occurs on source-inflected nominals such as attributives and action/manner nominals (§12.4), this is the only example where it marks a nominalised verb. The C-complementiser is optional and is only used for disambiguation in cases of potential misinterpretation. Without it, the identity of the deleted subordinate subject in (13.85) could be misinterpreted as coreferent with the main clause object, as in (13.86). Elsewhere it is omitted; the verb in (13.80c) bears no ergative agreement, despite the subordinate subject being coreferent with the main clause agent. However, in that example, the referent is not only pragmatically and semantically unambiguous, but crucially, it also shares an absolutive participant with the main clause, which can serve as the syntactic pivot.

Due to obligatory coreference, most non-finite perfect clauses are open to a possible relative clause interpretation, shown above in alternative translations. Many non-finite perfect clauses, particularly when preposed or integrated into the main clause before the BP complex, appear to form an NP with a free relative clause interpretation. This is shown in the alternative translations of (13.77, 13.79) and (13.87).

13.87 *dyuru yanga badyana anga ṉani inbana*
[jurru-yangka paja-nangka]=ngarni yinpa-na,
[snake-SRC bite-INF.SRC]=1PL.EX.S sing-PST

inbana bani ṉanani dyu
yinpa-na pani nganarni-ju
sing-PST s/he we.all.EX-ERG
'If a man is bitten by a snake, we sing that man.' (McK:83)
'We sang [someone a snake had bitten]. We sang him.'

In the next example, the relative clause separated from its demonstrative head by a pause, and only the first element of the relative clause is complementised.

13.88 *pina~pina-ma-n nga=n pantu, [wulu-kura-angka*
hear~RDP-AUX-PRES CAT=2SG.S MED [father-GEN-SRC

marran~marra-nu]
say~RDP-INF]
'You will hear that one which my father told.' (HTS42)

13.3.3.2 Finite perfect adverbial clauses

Mangarla's finite perfect clauses have all the same properties as an independent clause including a full range of tense and aspect marking, a full complement of adpositions and arguments (which, as for all clauses, may be unexpressed as NPs), and usually a BP complex which registers arguments. The suffixing of the complementiser to the verb after TAM is the only morphosyntactic clue that these are not independent clauses (although see below where potential grammaticisation is discussed). They display a great deal of variety in expression and have freedom from the main clause, lacking restrictions on coreference, relative position and TAM.[51] In (13.89, 13.92), both clauses employ the same TAM and the subordinate clause occurs before the main, but in (13.90-91), each clause has a different tense and with the main clause expressed first. These examples show the preference for sentence-final position for clauses with a causal interpretation.

13.89 *[kurlila-ngu=ni jurr-ka-ninya-angka Mangarla-artu mininy]*
[south-ABL=3PL.S down-AUX-NARPST-SRC Mangarla-COM language]

mininy nga=ni ma-ninya pantu Nyikina
language CAT=3PL.S get-NARPST MED Nyikina
'Having come down from the south with Mangarla language, they learned that Nyikina language.' (1D16)

13.90 *wanyju=la ka-ngku [kuli=pala=rna pinya-angka]*
one=1PL.IN.S take-FUT [anger=3DU.S=RR hit.PST-SRC]

[wayitpal nga=na pinya-angka]
[whitefella(E) CAT=3SG.S hit.PST-SRC]
'We will take one because they fought with each other and he killed the whitefella.' (Ngi42)

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[51] No examples occur in irrealis mood and questions arise over whether or not the present tense is used in perfect clauses. As with some non-finite forms, complementised present and past tense forms are homophonous in the *-rra* conjugation class. This can be seen in the alternative gloss for *kurnanangka* in (13.91).

13.91 *kamurra=pala pungka [ngapa=pala kurna-nangka]*
uncertain=3DU.S fall.FUT [water=3DU.S ingest-PRES/PST.SRC]
'Maybe those two will fall down from drinking grog.' (G103)

The uninstantiated nature of the future events combined with the sentence particle *kamurra* in (13.92) allows a conditional interpretation, shown in the alternative translation.

13.92 *[kamurra nyuntu=n ya-nku-yangka ngurtin-ta] mil-ka-ngku=n*
[uncertain you.SG=2SG.S go-FUT-SRC alone-LOC] eye-AUX-FUT=2SG.S

pantu panjurn
MED wood
'Maybe having gone on your own you will see that tree.' /
'Maybe if you go on your own, you will see that tree.' (HTS92)

All arguments can be disjoint.

13.93 *pantu Mangarla janyja mininy, yulu=lku=na wanti*
MED Mangarla today language ground=RESTR=3SG.S be.PRES

[ngurra-pa purnkurr nga=ni wani-nyinya-angka]
[camp-and shade CAT=3PL.S be-NARPST-SRC]
'As for that Mangarla language today, there is only empty land where there used to be shady camps (of people).' (1D60-61)

Disjoint arguments are generally expressed by NPs in their own clause where case is assigned and marked in the usual way. Shared participants can be left unexpressed (13.89-90, 13.94-95) or are expressed once, usually in the first clause, either the the main (13.90) or subordinate clause (13.92, 13.96).

BP complexes usually register arguments in each clause, although some speakers omit them from a short subordinate clause whose subject is coreferent with that of the main clause. These are almost always in the future tense.

13.94 *[kulpa-angka]=n* *manyula-jarru* *wurna-angka*
[come.back.FUT-SRC]=2SG.S tired-INCH.FUT move.off-SRC
'When you come back, you'll be tired from travelling.' (G124)

13.95 *marra-nku=lparri=ja=n* *[liyani-ka-nku-yangka* *ngijakura*
say-FUT=ASSERT=1SG.OBL=2SG.S [desire-AUX-FUT-SRC I.GEN

mininy]
language]
'I hope you will tell me that you have liked my story.' (2D56)

Although it is not a requirement, the subordinate subject in finite perfect constructions is, most commonly, coreferent with a main clause argument, which can be in any function. Often both main clause arguments have coreference in the perfect clause.

13.96 *kamurra* *[marlpurlu=n* *pirti-ma-nku-yangka]*
uncertain [baby.carrier=2SG.S create-AUX-FUT-SRC]

warlu-ngka-ka-nku=n
fire-LOC-AUX-FUT=2SG.S
'Perhaps you will fire a coolamon which you have made.'
'Perhaps, after you have made a coolamon, you will fire it.' (HTS66)
'Perhaps you, who have made a coolamon, will fire it.'

No C-complementiser is ever attested on the subordinate verb to show control by a main clause A (13.89, 13.92, 13.96). However, in the next example, the speaker marks the intransitive subject of the subordinate clause with the ergative to ensure its identification with the transitive subject of the main clause.

13.97 *paniyaru=ni=ngarningka* *rurrpja-ka-n-nga* *Nyikina*
they.ERG=3PL.S=1PL.EX.OBL reply-AUX-PRES-EP Nyikina

kartu-yangka-ju=na *nila-arri-nyangka*
child-SRC-ERG=3SG.S clever-INCH-PST.SRC
'They answer us in Nyikina having learned it as kids.' (1D56)
'They who learned it as kids, answer us in Nyikina.'

Finite perfect relative clauses

Most finite perfect clauses are also ambiguous as relative or adverbal clauses, shown by the alternative translations given throughout this section.

13.98 *[pantu panjurn nga=ni kati-pinya-angka]*
MED wood CAT=3PL.S cut-AUX.PST-SRC

kurrka-yi-na=na yalparra wanaminti-ngu
rise-AUX-PST=3SG.S again root-ABL
'That tree, which they cut down, grew again later from the roots.'
'After they cut down the tree, it later grew again from the roots.' (G146)

Subordinate clauses which are placed immediately after a coreferent NP are most likely to have an unambiguous relative interpretation.

13.99 *jakart-tu-n nga=na kuwi nguju [marawu-ja=na*
sneak.up.on-AUX-PRES CAT=3SG.S meat REC [nest-LOC=3SG.S

wirrja-nya-angka]
put-PST-SRC]
'He sneaks up on the prey (remember it), which had been put in the nest.'
(PSan84)

13.100 *pantu ngarrungu kukurl-mangari [panara-ja nga=ni*
MED person bushman-Dreaming [MED-LOC CAT=3PL.S

wanti-nyangka] kakurtu rayin nga=ni kurtijarri-nya
be-PST.SRC] finish fear CAT=3PL.S run.INCH-PST
'Those bushmen who had been staying there, alright, they ran away in fear.'
(Ngi30)

13.101 *nyaltu mininy=ngarni=ngka marra-narri nyuntu parnany*
PROX language=1PL.EX.S=2SG.OBL say-IPFV you.SG old.woman

[warri-nangka=n-nga mininy-ku Mangarla-ku]
[seek-PST.SRC=2SG.S-EP language-DAT Mangarla-DAT]
'We are telling these stories to you old woman who came seeking Mangarla language.' (1D46)

Being contiguous with the NP they modify allows perfect clauses to occur clause-internally. In (13.102-104), intransitive relative clauses intercede between the main clause ergative subject and the rest of the clause. However, they remain unmarked for agreement with it.

13.102 *mininy nyalartu Mangarla, kurlila-ngu-ju panaru-ju [nga=ni*
language PROX Mangarla south-ABL-ERG MED-ERG [CAT=3PL.S

jurr-ka-ninya-angka] jata=ni waji-ma-n
down-AUX-NARPST-SRC] still=3PL.S keep-AUX-PRES
'Those people from the south who came down, still keep Mangarla language.'
(1D30)

One speaker in particular forms very complex sentences containing multiple perfect clauses. Example (13.103) contains four. The main clause (underlined) is flanked by three adverbial clauses and contains a relative clause embedded within it. In each clause, four participants (the interlocutor, the speaker, a third person and the story) perform different grammatical functions. These functions are registered by BPs in each clause and new participants are introduced by NPs, *wanyjirraju* and *mangangku.*

13.103 *[warrimpa=ja=n marra-nku-yangka] <u>wanyjirra-ju</u> [jarnikarra-pa*
[by&by=1SG.O=2SG.S say-FUT-SRC] other-ERG [how-and

jarnikarra-pa mininy nyalartu nila-arru-yangka]
how-and language PROX clever-INCH.FUT-SRC]

<u>nga=na=ngka junga-ka-nku</u> [kamurra ngijakura-ju manga-ngku
<u>CAT=3SG.S=2SG.OBL straight-AUX-FUT</u> [uncertain I.GEN-ERG girl-ERG

nga=na mil-ka-ngku-yangka] [nga=rna=la
CAT=3SG.S eye-AUX-FUT-SRC] [CAT=1SG.S=3SG.OBL

mininy-pu-ngku-yangka]
language-AUX-FUT-SRC]
'Later on, if you tell me, someone else, who has understood how this story is, will straighten it out for you, maybe my daughter after she has looked at it, after I have spoken to her.' (2D14)

being primarily a nominal/nominalising suffix with the features of non-finite perfect clauses. These still function as free relative clauses and ascriptive predicates with a temporal/causal implication, which demand a coreferent participant, and whose verbal host is unable to assign case.

The use of the source case suffix as the complementiser on nominalised verbs to signify the temporal anteriority has evolved into its ability to mark finite subordinate verbs, which assign regular case to their arguments, which are in turn registered in a BP complex, as for finite main clauses. During this process, the variations, ambiguities and overlap in expression shown above would be expected.

The next step from subordinate complementiser to aspectual marker in independent clauses has already been taken by some speakers who allow finite perfect clauses to stand independently, both phonologically and contextually. The next examples were produced as simple elicited sentences with no surrounding context. Although phonologically distinct from it, these independent 'perfective' constructions are entirely consistent with the syntax of the Walmajarri 'completive aspect' suffix which only occurs after past tense marking (Hudson 1978:41).

13.104 *nyuntu-ngku=ja=n* *ngurrja-nangka* *mininy*
you.SG-ERG=1SG.OBL=2SG.S talk.about-PST.SRC language
'You have told me words.' (93sen34)

13.105 *ngayu-ngku=rna* *ngurrja-nangka* *pantu* *mininy*
I-ERG=1SG.S talk.about-PST.SRC MED language
'I have finished talking about that language.' (93sen49)

13.4 Clausal complements

This section examines clausal complements selected by verbal and non-verbal predicates of communication, perception and cognition. These predicates select a range of clausal complement types, including regular finite clauses (§13.4.1) and clauses which are marked as subordinate by a complementiser (§13.4.2). The types of predicates discussed in the following sections include verbs of information transfer (*ngarntin* 'solicit', *kawun* 'call out', *japirr-man* 'ask', *marran* 'say', *yun* 'tell', *kalpi-man* 'call on', *ngurrjan* 'talk about', *manyja-punga* 'invite', *nila-yunga* 'teach', *ngurrji-man* 'promise' and

jurrungkul-man ‘show’), perception (*mil-kanga* ‘see’, *nyanga* ‘see’ and *pina-man* ‘hear, think, understand’), psych-predicates (nominal and verbal) expressing a range of affective and cognitive states (*nila* ‘clever’, *ninti* ‘knowing’, *yumpaly* ‘dislike’, *wulyu* ‘be good (for)’, *liyani-kan* ‘desire’, *wulyu-yun* ‘like’), including those more commonly found as copulas (*karri* ‘stand, want’, *wanti* ‘be, stay, want’, *jarri* ‘INCH, want’ -see also §12.1) and idiomatic expressions (*yarrkan kurturtu* [throw.PRES stomach] ‘yearn for’, *manyula (jarri)* ‘be tired of, dislike’).

13.4.1 Finite clausal complements

Fully independent clauses containing no complementiser or other marker of subordination function as complements within sentences involving direct speech (§13.4.1.1) as well as reported speech, perceptions and desires (§13.4.1.2). In the former, the main or reporting clause can be reduced or even omitted with intonation being the only clue to attribution.

13.4.1.1 Direct speech

When directly quoting the words of someone, the direct speech complement is expressed as a separate utterance from the main clause which introduces it. While both occur in a single intonation unit, they are generally separated by a pause and/or change in pitch. The direct speech complement can consist of multiple clauses or be as short as one word. The fact that the reported speech counts as an initial element for the purposes of BP complex placement in second position shows it to be a complement clause rather than being completely independent.

13.106 *[ngayi], nga=na marra-na*
[yes] CAT=3SG.S say-PST
‘Yes,’ he said. (FK85)

When the complement contains a verb, the TAM of each clause is independent and each contains its own BP complex, if required. The two clauses may occur in either order.

13.107 *[nyuntu nga=na jiti-karra ka-ngarri wulu-ngku]*
[you.SG CAT=2SG.O straight-MAN take-IPFV father-ERG]

nga=na=ja *yu-na* *ngijakura-ju* *wulu*
CAT=3SG.S=1SG.OBL tell-PST I.GEN-ERG father
'"Your (other) father is taking you straight there," my father told me.' (2J105)

13.108 *panaru-ju* *linyju-ngku* *jipi-ngku* *Ngujpan* Gunner-*ngku=na* *marra-na*
MED-ERG police-ERG MAN-ERG personal.name-ERG=3SG.S say-PST

[wajarri *kakurtu* *nyalara-ja=lany* *wira]*
[NEG finish PROX-LOC=1PL.IN.S>3PL.O shoot-FUT]
'That Aboriginal policeman Ngujpan 'Gunner' said, "No! We will shoot them here."' (Ngi44-45)

Eckert and Hudson (1988:273) and Jones (2011:318) show how verbs of perception are used to introduce direct speech in Pitjantjatjara and Wangkajunga, a practice also found in Mangarla, with the verb *mil-kanga* 'see'.

13.109 *mil-ka-nya=pala,* *[nyaltu* *kuramarrka* *nyaltu* *kuwi]*
eye-AUX-PST=3DU.S [PROX bustard PROX meat]
'The two saw it (and called out), "Here is a turkey, here is meat."' (PSh12)

Sometimes the main verb is elided and attribution is simply given by a name or pronoun.

13.110 *[jarni-ngka=ni* *wanti],* *ngalyarra* *Kinyakarra-artu-arra*
[where-LOC=3PL.S be.PRES] s/he&I personal.name-COM-DU
'"Where are they?" Patsy and I (cried out).' (1M36-37)

At other times, a conversation is carried out with the narrator performing both parts and no communication verbs or speaker identifiers are used at all. In the following excerpt, the narrator repeats an interchange between two established characters. The conversation has already started and the narrator switches speakers several times using intonation as the only clue to the change.

13.111 *jarni-karti* *wani-nyarri,*
where-ALL be-IPFV

pantu *Martuwarra* *kurlila-walu* *nga=ni* *wani-nyarri,*
MED Fitzroy.River south-face CAT=3PL.S be-IPFV

ma-nku=ngarni=iny *pantarti jipi-yarti*
get-FUT=1PL.EX.S=3PL.O MED.PL man-PL
‘“Where are they stopping?”
“They are stopping at the river south of here.”
“We will get those people.” (FKNgi99)

In (13.112) the reporting clause is subordinate to the quotation, expressed as a TC clause.

13.112 *ngantangkaju* *nga=ni* *yinpi-nya,* *ngantangka*
what.from.?TOP CAT=3PL.S spear-PST what.from

[ngayu-ngku *japirr-ma-nu-karra]*
[I-ERG ask-AUX-INF-MAN]
‘“Why did they spear him, what for?” I was asking.’ (FKNgi54)

13.4.1.2 Indirect speech, desires and perceptions

Indirect reporting of speech and attitudes primarily employs complementised subordinate clauses (§13.4.2). However, at times finite clauses are also used.

13.113 *ngurrja-narri=rna=ngka* *[kurlila-ng-angka* *ngarrungu*
talk.about-IPFV=1SG.S=2SG.OBL [south-EP-SRC person

jarni-karra-ny-jarri-nya]
how-MAN-EP-INCH-PST]
‘I’m telling you what became of the men from the south.’ (1D59)

13.114 *[puturi-n* *ngayu-angka=n-nga]* *marra-nku=ja=n*
[need-PRES I-SRC=2SG.S-EP] say-FUT=1SG.OBL=2SG.S
‘If you need (something) from me, you will tell me.’ (1D92)

However, such examples are not common, and are often open to alternative interpretations. For example, direct speech usually involves a shift of perspective by the speaker, but it is not easy to distinguish from indirect reporting when referents are in third person (13.115-116).

13.115 *maranana banigura manin mai na dyanimanari*
marra-na=na [pani-kura marnin mayi=na jani-ma-narri]
say-PST=3SG.S [s/he-GEN woman food=3SG.S cook-AUX-IPFV]
'He$_i$ said, his$_i$ wife is cooking food.' (McK:48)
?'He$_i$ said, "His$_j$ wife is cooking food."'

13.116 *mininy-kurru-ja nga=ni marra-na [ngapa-ngka=na wanti*
language-doer(NK)-LOC CAT=3PL.S say-PST [water-LOC=3SG.S be.PRES

kuwarniya]
freshwater.crocodile]
'They said on the wireless (that) there is a crocodile in the water.' (G75)
'They said on the wireless, "There is a crocodile in the water."'

Predicates other than speech verbs also take finite complements. The nominal predicate *nila* 'clever, knowing, be keen to' generally takes a purposive complement but one speaker uses it with a finite complement in irrealis mood to express an unfulfilled desire.

13.117 *nila=na [purta-ma nyalara-ja]*
clever=3SG.S [come-PSTIRR PROX-LOC]
'He wanted to come here (but didn't).' (G95)

Verbs of perception can be juxtaposed with independent finite clauses describing the perceived event. Whether or not those in (13.118-119) function as complements or independent clauses is difficult to ascertain.

13.118 *wanti=na kuwarniya, mil-ka-nya=rna [pantu=na*
be.PRES=3SG.S freshwater.crocodile eye-AUX-PST=1SG.S [MED=3SG.S

wanti
be.PRES
'There is an alligator. I saw that one stopping there.' (MW:nbkA48)
?'There is an alligator. I saw it. That one is there.'

13.119 *ngayu-ngku=rna pina~pina-ma-n [ya-nku=rna nguwi-nku=rna*
I-ERG=1SG.S hear~RDP-AUX-PRES [go-FUT=1SG.S return-FUT=1SG.S

Derby-*karti]*
placename(E)-ALL]
'I think I will go back to Derby.' (A64)
?'I'm thinking something. I will go and return to Derby.'

However, as the head of a subordinate clause, the same verbs take finite complements. In (13.120-121), the subordinate proposition of the TC clause (underlined) is finite, but does not register arguments in a BP complex. Most of these are introduced by the indefinite/interrogative *jarnikarra* 'how'.

13.120 *nyaltu parnany nga=na purta-nya wit-ngu*
PROX old.woman CAT=3SG.S come-PST distant-ABL

[pina~pina-ma-nu-karra jarnikarra ngarrungu wanti]
[hear~RDP-AUX-INF-MAN how person be.PRES]
'This old woman came from a long way away to understand how Aboriginal people live.' (HTS40)

13.121 *nyaltu wayitpal nga=na ya-ninya rayitapawut patak*
PROX whitefella(E) CAT=3SG.S go-NARPST ride.about(E) paddock(E)

[nya-ngu-karra jarnikarra-ny kukunjari wanti panara-ja]
[see-INF-MAN how-EP sheep be.PRES MED-LOC]
'This whitefella went riding around the paddock to check on the sheep there.' (Ngi18)

13.4.2 Non-finite/complementised clausal complements

This section examines clauses marked by an overt complementiser which act as the complements of certain predicates. They can have nominalised or finite verbs, and are formally identical to those which function as adverbial and relative subordinate clauses (§13.3).

Verbs of communication in Mangarla take complements marked by all three complementisers, according to the temporal relation between the main and subordinate event. However, the TC complementiser is rarely used, except as an alternative to

purposive or perfect clauses, and when the subordinate proposition occurs simultaneously with the main event. Clausal complements exhibit some differences to their adverbial/relative counterparts. The use of the complementiser is more relaxed; the dependent verb is not always marked and sometimes no complementiser is used at all. They are more likely to be centrally located within the main clause than adverbial clauses and often form complex constructions involving coordination and embedding of multiple subordinate clauses.

Perfect clauses describe events which occurred before the speech event. Most are non-finite (13.122), but finite perfect clauses also occur (13.123).

13.122 *ngujartu=ningki ngurrja-na, nganiji*
REC=3PL.S>2SG.OBL talk.about-PST whatsaname

[kartu-yangka parti-nyangka] nga=na=ngka=pala
[child-SRC go-INF.SRC] CAT=3=2SG.OBL=DU.S

Rakartu-ju-pa Janyi-ngku nganiji-ju payulu
personal.name-ERG-and personal.name-ERG whatsaname-ERG anybody
'You know what they told you, about coming in as kids, Rakartu and Janyi (told) you and whoever else.' (1D62)

13.123 *marra-nku=lparri=ja=n [liyani-ka-nku-yangka ngijakura*
say-FUT=ASSERT=1SG.OBL=2SG.S [desire-AUX-FUT-SRC I.GEN

mininy]
language]
'I hope you will tell me that you have liked my story.' (2D56)

The purposive is used when the proposition is unrealised at the time of the speech event.

13.124 *wulu ṉgu ṉanadya maranarinya wilganu burru maṉurl*
wulu-ngku nga=na=ja marra-narrinya [wilka-nu-purru mangurl
father-ERG CAT=3SG.S=1SG.OBL say-NARPST [flex-INF-PURP spear

jugunda
yukurn-ta]
smoke-LOC]
'Father told me how to bend the spear in the smoke.' (McK:PS11)

13.125 *nila-yu-ngku=nya=n-nga* *[jarnikarra-ny* *jani-ma-nu-pirri]*
clever-AUX-FUT=1SG.O=2SG.S-EP [how-EP cook-AUX-INF-PURP]
'Will you teach me how to cook?' (G11)

Psych-predicates and copulas (§12.3) employ the purposive to describe the nature of a desire or knowledge.

13.126 *wandina* *gui birri* *gunanyu* *birri*
wanti=rna *[kuwi-pirri* *kurna-nyu-pirri]*
be.PRES=1SG.S [meat-PURP ingest-INF-PURP]
'I like to eat meat.' (McK:78)

13.127 *wajarri=rna* *liyani-ka-nama* *[ya-nu-pirri]*
NEG=1SG.S desire-AUX-PSTIRR [go-INF-PURP]
'I didn't want to go.' (A45)

Hale (1982:283-284) differentiates 'jussive complements' from purposive relative clauses in Warlpiri whereby the former are 'structures of obligatory control':

> *if the verb takes a single argument, its subject, naturally, will control the infinitive subject; but if the verb takes two arguments, its object will control.*

However, as described in §13.3.1, the Mangarla data shows that all sentences containing purposive clauses tend to follow this principle. A few jussives also contravene it. The following two pairs of sentences illustrate the possible variation in controllers. Each pair shows the same verb of communication with purposive complements. In the a) sentences, the transitive subject of the main clause controls the deletion of the purpose clause subject, and in the b) sentences, the main clause object or oblique target is the controller.

13.128 *a) marananala warrimba birri walu gaṉu birri*
marra-na=na=la [warrimpa-pirri warlu ka-ngu-pirri]
say-PST=3SG.S=3SG.OBL [by&by-PURP fire carry-INF-PURP]
'He said to him, bye and bye (*sic*), he would take the wood.' (McK:49)

b) marananala ṉura gadi walu gaṉu birri
marra-na=na=la [ngurra-karti warlu ka-ngu-pirri]
say-PST=3SG.S=3SG.OBL [camp-ALL fire carry-INF-PURP]
'He told the other person to take the wood to the camp.' (McK:49)

13.129 *a) nyalartarra kujarra-ju nga=na=nya=pala japirr-ma-na*
PROX.DU two-ERG CAT=3=1SG.O=DU.S ask-AUX-PST

[warlparni-pirri ya-nu]
[to.here-PURP go-INF]
'Those two asked me if they could come here (with me).' (G1)

b) walu ṉananya dyapir ma-na gaṉu birri ṉura gadi
warlu nga=na=nya japirr-ma-na [ka-ngu-pirri ngurra-karti]
fire CAT=3SG.S=1SG.O ask-AUX-PST [take-INF-PURP camp-ALL]
'He asked me to take the wood to the camp.' (McK:49)

In Mangarla, pragmatics is clearly used to interpret the subject of the complement. However, these examples are unusual and when the subject of the complement is coreferent with the transitive subject of the main clause the preferred strategy is to use a finite clause (13.114, 13.130b).

13.130 *a) wajarri=rna marra-ntama [ya-nu-pirri]*
NEG=1SG.S say-PSTIRR [go-INF-PURP]
'I didn't say (for you) to go.' (A21)
*'I didn't say I will go.'

b) ningarra marra-n nga=rna=ngka [ngayu=rna ya-nku]
true say-PRES CAT=1SG.S=2SG.OBL [I=1SG.S go-FUT]
'I promise you I will go.' (A14)

However, alternative strategies, such as coordination, are also available even when coreference preferences are met (13.131 *cf.* 13.128b).

13.131 *marananala walu birri gaŋguna nura gadi*
marra-na=na=la [warlu-pirri ka-ngku=na ngurra-karti]
say-PST=3SG.S=3SG.OBL [fire-PURP carry-INF=3SG.S camp-ALL]
'He told the other person to take the wood to the camp.' (McK:49)
(*lit.* 'He$_i$ told him$_j$ (to get) firewood and he$_j$ should take it to camp.')

The TC complementiser sometimes alternates with the purposive, shown below with the verb *jurrungkul-man* 'show'.

13.132 *dyurungul ŋanadya manarinya gui burru*
*jurrungkul nga=na=ja ma-narrinya [kuwi-**purru***
show CAT=3SG.S=1SG.OBL AUX-NARPST [meat-**PURP**

dyagardunu burru
*jakart-tu-nu-**purru]***
sneak.up.on-AUX-**PURP**]
'He taught me how to stalk game.' (McK:PS17)

13.133 *nga=na=nya jurrungkul~jurrungkul-ma-ninya, [wurna-pa*
CAT=3SG.S=1SG.O show~RDP-AUX-NARPST [move.off-and

*yarrkal-pu-ngu kuwi warri-nu-**karra**-pa, jarnikarra-pa jiya-nu-pa]*
hunting-AUX-INF meat seek-INF-**MAN**-and how-and follow-INF-and]
'He taught me about hunting expeditions, looking for meat, tracking and whatever else.' (HTS31)

Differences in argument registration in these examples are due to this verb having more than one argument structure, but this has no effect on the selection of the complementiser. The choice of complementiser is perhaps a consequence of a difference in temporal orientation or the characterisation of the learning event. The purposive possibly focusses on the clausal complement as a skill to be performed in subsequent times, while the TC

clause focusses on the method of the lesson and indicates that the 'showing' and the 'tracking' *etc*. occur simultaneously.[52]

Similarly, the psych-predicate in the next three examples is used with purposive, TC and finite complements. Each may have slightly different semantics with *-karra* possibly having more of a gerundial sense to express an ongoing pleasure in the activity rather than a particular intention to carry it out, as the purposive might imply.

13.134 *ngayu-ngku wulyu-yu-n nga=rna [jitany-**pirri** wani-nyu*
I-ERG good-AUX-PRES CAT=1SG.S [sit.down-**PURP** be-INF

Marntarninyan-ta]
placename(E)-LOC]
'I like to live at Mt. Anderson.' (A24)

13.135 *ngayu-ngku wulyu-yu-n nga=rna [kurna-nu-**karra**]*
I-ERG good-AUX-PRES CAT=1SG.S [ingest-INF-**MAN**]
'I like eating.' (A23)

13.136 *[kurnta=rna] wulyu-yu-n nga=rna*
[ingest.PRES/FUT=1SG.S] good-AUX-PRES CAT=1SG.S
'I like eating.' (G38)
(*lit.* 'I (will) eat. I like it.')

Complements tend to be less rigid in adding the complementiser to the subordinate predicate than purposives functioning as relative clauses. The complementiser in (13.133) occurs on only one of the three conjoined non-finite verbs. At other times it marks all

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[52] The following two examples are given as another unrelated occurrence of alternative complementisers in clausal complements where temporal orientation is a factor. In the first, the winnowing is identified by the perfect complementiser as an activity which is not currently occurring, while in the second the acts are interpreted as temporally coincidental.

a. *wagady ganan yabina anga*
*wakaj-ka-na=n yapi-na-**angka***
complete-AUX-PST=2SG.S winnow-PST-SRC
'Have you finished winnowing?' (McK:155)

b. *nyumpala=mpala puju-yarru kurna-nu-**karra***
you.2=2DU.S complete(WLM)-INCH.FUT ingest-INF-**MAN**
'You two are finishing off eating.' (A46)

elements of the complement (13.126, 13.132), sometimes just the predicate (13.125, 13.128b, 13.129b) and sometimes just one element in the clause (13.129a, 13.134), common for all types of case marking (§9.2.3). Occasionally the complementiser is completely absent from the clause and while some examples suggest that it may be optional on complements in comparison to adverbial clauses (13.137 *cf.* 13.127, 13.138 *cf.* 13.139), others might be interpreted as clause chains (13.140), as noted in §13.2.2.

13.137 *wajarri=rna liyani-ka-rrayi [kurna-**nu** mangarri]*
NEG=1SG.S desire-AUX-NPIRR [ingest-**INF** veg.food]
'I don't want to eat any food.' (A25)

13.138 *imbaly ṉana gurgayinu*
*yumpaly nga=rna [kurrka-yi-**nu**]*
disinclined CAT=1SG.S [rise-AUX-**INF**]
'I don't like to get up.' (McK:149)

13.139 *yumpaly nga=rna jarri [kurna-nu-**pirri**]*
disinclined CAT=1SG.S INCH.PRES [ingest-INF-**PURP**]
'I don't want to eat.' (G42)

13.140 *[pantu=n mininy wajarri nganga-nya-**ngu**] nyaltu=rna=ngka*
[MED=2SG.S language NEG lose-AUX-**INF**] PROX=1SG.S=2SG.OBL

marra-narri
say-IPFV
'That's a story you shouldn't forget, this (is what/one) I am telling you.'
(1D74)

Clausal complements mostly occur on the rightmost periphery of the sentence, rarely before the main clause, but can be centrally located.

13.141 *ngayu=rna [kapa-nu-pirri] wani-nyarri*
I=1SG.S [sit-INF-PURP] be-IPFV
'I want to sit down.' (2sen176)

Clausal complements of all types are often conjoined paratactically or with the nominal conjunction *-pa*. The conjunction is not found with subordinate clauses in adverbial function, possibly because these are less complex involving a single subordinate activity.

In (13.142), clauses are simply juxtaposed. In (13.133), both asyndetic and syndetic strategies are used to list skills expressed as subordinate clauses, some with multiple elements.

13.142 *wulu-ngku ngijakura-ju,*[53] *wulu ngijakura, pantu=na=ja*
father-ERG I.GEN-ERG father I.GEN-ERG MED=3SG.S=1SG.OBL

tija ngijakura wulu [mininy-pirri nyaltu-pirri marra-nu
teacher(E) I.GEN-ERG father [language-PURP PROX-PURP say-INF

ma-nu-pirri jarnikarra~jarnikarra]
get-INF-PURP how~RDP]
'My father taught me to tell these stories and how to do whatever.' (HTS4)

Speakers from Jarlmadangah mostly use the non-finite perfect form in conjoined clausal complements and ascriptive predicates. However, on occasions conjoined finite perfect clauses are found in these functions.

13.143 *wajarri=rna=ngka nyaltu marra-rrayi [yarrkal~yarrkal-pu-ngangka,*
NEG=1SG.S=2SG.OBL PROX say-NPIRR [hunting~RDP-AUX-INF.SRC

panartu=ni yarrkal~yarrkal-pu-ngarrinya-angka-pa
MED=3PL.S hunting~RDP-AUX-NARPST-SRC-and

kartu-pa=ni=iny ka-ngarrinya-angka
child-and=3PL.S=3PL.O carry-NARPST-SRC

purlka-ka-narrinya-angka-pa=ni=iny wulu-ngku-pa kampaja-ju]
big-AUX-NARPST-SRC-and=3PL.S=3PL.O father-ERG-and mother-ERG]
'I can't tell you about hunting or that one they (told) about going hunting, and how their mother and father brought them in as children and raised them.'
(1D100-101)

The use of multiple subordinate clauses within one sentence and the embedding of one type of subordinate clause in another are not uncommon, and are quite characteristic of

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[53] The ergative marking is taken to be a false start which the speaker corrects in the next phrase.

one particular speaker. For example, in (13.144), the purposive complement is embedded in a perfect subordinate clause, and in (13.145), a verb of cognition occurs with a non-verbal clausal complement, whose predicate selects a purposive complement.

13.144 *nyuntu parnany [liyani-ka-nku-yangka=n [panjurn-karti-pirri]]*
you.SG old.woman [desire-AUX-FUT-SRC=2SG.S [wood-ALL-PURP]]

panjurn nga=n kati-pu-ngku pantu panjurn
wood CAT=2SG.S cut-AUX-FUT MED wood
'Old woman, once you have decided to go for a tree, you will cut down that tree.' (HTS43)

13.145 *ngayu-ngku=rna pina-ma-narri*
I-ERG=1SG.S hear-AUX-IPFV

[Marntarninyan nga=na [wulyu mulnyi wani-nyu-pirri]]
[placename(E) CAT=3SG.S [good soil be-INF-PURP]]
'I think Mt. Anderson is a good place to live.' (A66)

In (13.72) repeated below as (13.146), a subordinate TC clause headed by *mil-kangukarra* has non-subject argument consisting of two coordinated non-verbal clauses. One of these is headed by the nominal predicate *nila* which selects a purposive complement.

13.146 *paju-rra=la nyalara-ja [jitany-ngu-ju ngayu-ngku=rna=ngka*
strip.AUX-IMP=3SG.S PROX-LOC [seated-ABL-ERG I-ERG=1SG.S=2SG.OBL

mil~mil-ka-ngu-karra [[ningarra=nyjangu pantu] [nyuntu=nyjangu=n,
eye~RDP-AUX-INF-MAN [[true=INDEED MED] [you.SG=INDEED=2SG.S

nila pantu pirti~pirti-ma-nu-pirri panjurn-pirri]]]
clever MED create~RDP-AUX-INF-PURP wood-PURP]]]
'Remove the bark from it while I sit here to see that it's correct and you really know how to carve that wood.' (HTS109)

This description highlights the fluidity of language, and the difficulty of establishing what is a single language variety. The genetic affiliation of Mangarla has been problematic for researchers in the past (*e.g.* O'Grady 1964, O'Grady, Voegelin and Voegelin 1966) and distinguishing between diffusion, borrowing and shared innovation can be difficult, particularly when data is limited, as Bowern and Koch (2001) point out. The influences which can impact on a language are many, and its different forms often depend on where a language is spoken and by whom. The differences highlighted in this work between McKelson's corpus and my own cannot be attributed to any single factor. Diachronic changes, idiolectal and dialectal variation between our informants, the social impact of the community in which the data was collected all combine with the possible effects of obsolescence. Throughout, I have tried to indicate where an unusual linguistic feature varies between speakers and where it may be shared with another language. The variation it exhibits is an indication not only of Mangarla's shared history, but also its synchronic dynamism.

Appendix 1: Mangarla texts

Text 1: Childhood

told by Nancy Missibah (Mijipa) in April 1992 at Mt. Anderson Station, transcribed by Brigitte Agnew assisted by Nancy Missibah.

The audio is held at held by PARADISEC as item no. BLA1-001-A and also by AIATSIS in collection AGNEW_B01, as field tape 92/4a (000-162), digitised item number 14014. The glossing sessions contain additional and alternative expressions and are held in the same collection as field tapes 92/19, 92/20, 92/21 and digitised items 14030, 14031, 14032 and 14033. The collection is available with permission of the Mangarla community.

1. *yarr nga=rna marra-nku*
   just(WLM) CAT=1SG.S say-FUT
   'I might just tell (this one).'

2. *yala-ngu nga=rna parti-nya*
   DIST-ABL CAT=1SG.S go-PST
   'I came from far way.'

3. *ngayu, pirra-ngka=rna wani-nya*
   I bush-LOC=1SG.S be-PST
   'Me, I lived in the bush.'

4. *kampaja-ju ngijakura-ju=na=nya wanyja-na*
   mother-ERG I.GEN-ERG=3SG.S=1SG.O leave-PST
   'My mother left me.'

5. *yap*
   leave.behind
   'Never to be seen again.'

6. *wanyjirra-artu=na yaku ya-na*
   other-COM=3SG.S husband go-PST
   'She went with another husband.'

7. *an ngijakura-ju kaka-ngku nga=na=nya waji-ma-na*
   and(K) I.GEN-ERG uncle-ERG CAT=3SG.S=1SG.O keep-AUX-PST
   'My uncle looked after me.'

8. *wipirti manga ngayu*
   small girl I
   'I was just a little girl.'

9. *yurayit pantangkaju wani-nyinya=ngarni, pirra-ngarni ya-ninya*
   alright(K) after.that be-NARPST=1PL.EX.S bush=1PL.EX.S go-NARPST

   kartiyarti ningarra=wun
   child.PL true=WELL
   'So, we used to stop there and as children we would go round in the bush, true.'

10. *purta-nya=ngarningka*
    come-PST=1PL.EX.OBL
    'He came up on us.'

11. *yangka-ngu*
    behind-ABL
    'From behind.'

12. *kutungu=ngarni wani-nyarrinya*
    women's.camp=1PL.EX.S be-NARPST
    'We were (on our own) in the camp for old women and children.'

13. *wulu-pa kampaja-pa yap nga=ni parti-nya*
    father-and mother-and leave.behind CAT=3PL.S go-PST
    'Mother and father had gone far away.'

14. *wani-nyinya=ngarni, mil-ka-ngarrinya=ngarni-ya*
    be-NARPST=1PL.EX.S eye-AUX-NARPST=1PL.EX.S-EP
    'We were stopping there, keeping a lookout.'

15. *nguwi-narrinya=ngarni ngapa-karti* now*, kaniny-jurra,*
    return-NARPST=1PL.EX.S water-ALL below-down
    'We would go back for water, down below.'

16. *tarta-artu, tarta-ngku=ngarningka ma-na*
cup.coolamon-COM cup.coolamon-ERG=1PL.EX.OBL get-PST
'With a coolamon, she got it for us using a coolamon.'

17. *wakurr-ma-na=na, ngijakura-ju ngunurtu-ju*
dig-AUX-PST=3SG.S I.GEN-ERG older.sister-ERG
'She dug (for water), my big sister.'

18. *yurayit, wakurr-ma-na=na*
alright(K) dig-AUX-PST=3SG.S
'So, she dug for it.'

19. *ngayu=rna wani-nya yangka-karti wupa manga*
I=1SG.S be-PST behind-ALL small girl
'I was the youngest little girl.'

20. *wani-nyarrinya=ngarni*
be-NARPST=1PL.EX.S
'There we were.'

21. *mil-ka-ngarrinya=ngarni-ya wajarri*
eye-AUX-NARPST=1PL.EX.S NEG
'We were looking around, but saw nothing.'

22. *pulijiman-tu=ngarniny karti-ma-na nimarrangka-ngu*
policeman(E)-ERG=1PL.EX.O hold-AUX-PST arm-ABL
'A policeman grabbed us by the arms.'

23. *karti-ma-na=ngarniny*
hold-AUX-PST=1PL.EX.O
'He held us.'

24. *purr~purr-ju-na=ngarni*
startle~RDP-AUX-PST=1PL.EX.S
'We were startled'

25. *a nyaltu nga=na purta pulijiman*
oh PROX CAT=3SG.S come.PRES policeman(E)
‘“Oh, here is a policeman!”’

26. *rayin=ngarni jarri-nya*
fear=1PL.EX.S INCH-PST
‘We were frightened.’

27. *yangka-ngu wulu-pa kampaja-pa yap*
behind-ABL father-and mother-and leave.behind
‘Earlier on, father and mother had taken off.’

28. *nga=ni=ngarniny-ya wanyja-na*
CAT=3PL.S=1PL.EX.O-EP leave-PST
‘They left us.’

29. *wani-nyinya=ngarni*
be-NARPST=1PL.EX.S
‘We stayed.’

30. *a, ka-ngku=ngarni=nyurruny*
Oh take-FUT=1PL.EX.S=2PL.O
“Oh, we will take you away.”

31. *pulijiman-tu nga=ngarniny ma-na, nimarrangka-ngu=ngarniny ma-na*
policeman(E)-ERG CAT=1PL.EX.O get-PST arm-ABL=1PL.EX.O get-PST
‘The policeman grabbed us, he had us by the arms.’

32. *ka-nya=ni=ngarniny*
take-PST=3PL.S=1PL.EX.O
‘They took us.’

33. *ngaja-nyarrinya=ngarni*
cry-NARPST=1PL.EX.S
‘We were crying.’

34. *kaniny*
below
'In the valley.'

35. *wulu-pa kampaja=ngarni=jinya ngaja-nyarrinya*
father-and mother=1PL.EX.S=3PL.OBL cry-NARPST
'We were crying for our father and mother.'

36. *jarni-ngka=ni wanti*
where-LOC=3PL.S be.PRES
'"Where are they?"'

37. *ngalyarra, Kinyakarrartu-arra*
s/he&I personal.name-DU
'Patsy and I (cried out).'

38. *nganarni-yarra*
we.all.EX-DU
'All of us, two (?families).'

39. *rawuntim-ka-na=ni=ngarniny yawarta-arti-ju*
round.up(K)-AUX-PST=3PL.S=1PL.EX.O horse-PL-ERG
'They rounded us up with horses.'

40. *ningarra=wun nga=ni purta-nya*
true=WELL CAT=3PL.S come-PST
'That's really how they came.'

41. *jarni nyurra-kura kampaja-pa wulu-pa*
where you.all-GEN mother-and father-and
'"Where are your parents?"'

42. no, *yap nga=ni ya-na,* bush, *kuwi-karti*
leave.behind CAT=3PL.S go-PST meat-ALL
'"Not here. They have gone away, to the bush for meat."'

43. *kuwi=ni-ya* *karta-ju-n*
meat=3PL.S-EP look.for-AUX-PRES
‘“They are looking for meat.”’

44. *wani-nya=ngarni* *ngurra-ngka,* finish
be-PST=1PL.EX.S camp-LOC
‘“We stopped in camp, that’s all.”’

45. *ningarra=wun* *nga=na* *purta-nya,* *pani-ya*
true=WELL CAT=3SG.S come-PST s/he-EP
‘It’s true, he really came.’

46. *nga=ni* *purta-nya* *wulpipul*
CAT=3PL.S come-PST old.people(E)
‘The old people came (and)...’

47. *jayinimap-ka-na=ni=jiny* *jayin-tartu-ju,* now
chain.up(K)-AUX-PST=3PL.S=3PL.O chain(E)-COM-ERG
‘they chained them up with chains, at that time...’

48. *rarrarra,* *panjurn* *wanyjirra* *panjurn* *wanyjirra* *panjurn* *wanyjirra.....*
one.line wood other wood other wood other
‘.. in a row, (chained to) one tree after another.’

49. *yurayit* *yaji-pu-ngarrinya=ngarni=inya*
alright(K) wait-AUX-NARPST=1PL.EX.S=3PL.OBL
‘Alright, we were waiting for them.’

50. *wajarri=ngarniny* *wayitpal-tu* *letim-ka-narrima*
NEG=1PL.EX.O whitefella(E)-ERG allow(K)-AUX-IPFVPSTIRR

wulu-karti-pa *kampaja-karti,* near to them nothing *wajarri,*
father-all-and mother-all NEG

you know *marnpa-marta,* *wani-nyu*
close-CPR be-INF
‘The whitefella wouldn’t let us go to our father and mother, you know, to stay closer to them.’

51. *ngayu=rna ya-nku wulu-karti-ya*
I=1SG.S go-FUT father-ALL-EP
‘“I want to go to Daddy.”’

52. *ngurrpa=ngarni-ya Yingkilij nganarni*
ignorant=1PL.EX.S-EP English(E) we.all.EX
‘We didn’t know English.’

53. only *Mangarla mininy-pu-ngarrinya=ngarni*
Mangarla language-AUX-NARPST=1PL.EX.S
‘We only spoke Mangarla.’

54. *wani-nya=ngarni jartarrangka*
be-NARPST=1PL.EX.S long.time
‘We stayed there for a long time.’

55. *wu, wurna=ngarni=nyurruny ka-ngku, wurna tayijan-karti-karra,*
Oh move.off=1PL.EX.S=2PL.O take-FUT move.off station(E)-ALL-MAN

pulijiman-tu
policeman(E)-ERG
“Oh we’ll take you to the station when we go,” the policeman (said).

56. *ngayu-ngku=rna=palangka ngijakura kaka-pa ngunyarri ngaja-nyarrinya*
I-ERG=1SG.S=3DU.OBL I.GEN uncle-and aunt cry-NARPST
‘I was crying for my uncle and aunt.’

57. *Nyunkun-kura, nga=rna=palangka ngaja-nyarrinya pantarra*
personal.name-GEN CAT=1SG.S=3DU.OBL cry-NARPST MED.DU
‘Nyunkun and his wife, I was crying for those two.’

58. *pani-ngku=palangka wulu-pa kampaja ngaja-nyarrinya*
s/he-ERG=3DU.OBL father-and mother cry-NARPST

nganiji-ju, Kinyakarrartu
whatsaname-ERG personal.name
‘She was crying for her mother and father, whatsaname was, Patsy.’

59. *wani-nya=ngarni jartarrangka*
be-PST=1PL.EX.S long.time
'We stayed for a long time.'

60. *yurayit pantangkaju=ngarningka pulijiman-tu marra-na*
alright(K) after.that=1PL.EX.OBL policeman(E)-ERG say-PST
'After that, the policeman said to us,'

61. *pa, wurna=ngarni=nyurruny ka-ngku, mayaru-karti, kankarra,*
let's.go move.off=1PL.EX.S=2PL.O take-FUT house-ALL above

yu-na=ngarningka
tell-PST=1PL.EX.OBL
'"Let's go. We will take you lot up to the station house," he told us.'

62. *yakurr-ju-na=ngarni-ya nganarni-ju*
no.good-AUX-PST=1PL.EX.S-EP we.all.EX-ERG
'"We don't want to."'

63. *nganarni=ngarni wantu wulu-ngka-pa kampaja-ja*
we.all.EX=1PL.EX.S be.FUT father-LOC-and mother-LOC
'"We want to stay with father and mother."'

64. *wajarri ya-rra=ngarni=kulu*
NEG go-IMP=1PL.EX.S=ANTIC
'"We won't go!"'

65. *wurna=ngarni=nyurruny ka-ngku mayaru-karti*
move.off=1PL.EX.S=2PL.O take-FUT house-ALL
'"We will take you to the house."'

66. *wajarri, kurna-n=ngarni-ya nyaltu kuwi nganarni-kura,*
NEG ingest-PRES=1PL.EX.S-EP PROX meat we.all.EX-GEN

wirlka-pa paarni-pa
sand.goanna-and perentie(K)-and
'"No (we can't eat your food)! We eat our own meat, goanna and perentie."'

67. *nyalara nguju wulu-ngka-pa kampaja-ja ngarni wantu*
PROX.LOC REC father-LOC-and mother-LOC 1PL.EX.S be.FUT
‘“We want to stay right here with our father and mother.”’

68. *wajarri parti=ngarni=kulu nyurra-artu*
NEG go.IMP=1PL.EX.S=ANTIC you.all-COM
‘“We won’t go with you lot.”’

69. *kanti-rra=nyurra=ngarniny-ya=kulu yala-ngka, ngarni marra-ninya*
hit-IMP=2PL.S=1PL.EX.O-EP=ANTIC DIST-LOC 1PL.EX.S say-NARPST
‘“You might beat us over there,” we said.’

70. *yurayit, pantangkaju nga=rna parti-nya, Mayinkarta*
alright(K) after.that CAT=1SG.S go-PST placename
‘Alright, after that I went, to Mayinkarta.’

71. *Mayinkarta-ja panara-ja nga=ni=ngarniny katimat-ka-na,*
placename-LOC MED-LOC CAT=3PL.S=1PL.EX.O separate(K)-AUX-PST

katimat-ka-na
separate(K)-AUX-PST
‘There at Mayinkarta, they split us all up.’

72. *kakarra kara*
east west
‘... east and west.’

73. *pantangkaju=ngarni wani-nya panara-ja Mayinkarta-ja,*
after.that=1PL.EX.S be-PST MED-LOC placename-LOC

yaji-pinya=ngarni=jinya wanyjirra-arti, pulijiman
wait-AUX.PST=1PL.EX.S=3PL.OBL other-PL policemen(E)
‘Then we stayed at Mayinkarta and we waited for some others, policemen.’

74. *waji-ma-ninya=ngarniny*
keep-AUX-NARPST=1PL.EX.O
‘They were holding us.’

75. *lukatim-ka-narrinya=ngarniny wanyju-ngku pulijiman-tu,*
watch(K)-AUX-NARPST=1PL.EX.O one-ERG policeman(E)-ERG
'One policeman was watching us ...'

76. *nganarni ngaju-karra wulu-pa kampaja-purru*
we.all.EX cry-MAN father-and mother-PURP
'.. as we cried for our parents.'

77. *yaji-pinya=ngarni=jinya yaji-pinya=ngarni=jinya*
wait-AUX.PST=1PL.EX.S=3PL.OBL wait-AUX.PST=1PL.EX.S=3PL.OBL

yaji-pinya=ngarni=jinya jurturru.
wait-AUX.PST=1PL.EX.S=3PL.OBL ongoing
'We waited and waited and waited for them, day after day.'

78. *kakarra-ngu=ni nguwi-na paniyarti Lungkayi-ngu, Kulakulapu*
east-ABL=3PL.S return-PST they placename-ABL placename
'They came back from the east, from Luluigui Station.'

79. *nga=ni nguwi-na pulijiman-arti*
CAT=3PL.S return-PST policemen(E)-PL
'The policemen returned.'

80. *nga=ni=ngarningkala nganarni*
CAT=3PL.S=1PL.EX.OBL2 we.all.EX
'They (came back) for us.'

81. *yaji-pu-ngarrinya=ngarni=jinya*
wait-AUX-NARPST=1PL.EX.S=3PL.OBL
'We were waiting for them.'

82. *pantu-n=parra nga=ni=ngarniny ka-nya*
MED-EP=ASSERT CAT=3PL.S=1PL.EX.O take-PST
'until they came and took us...'

83. *walparni-ngarra Marntarninyan-karti*
to.here-about placename(E)-ALL
'.. down round this way to Mt. Anderson.'

84. *nga=rna=palangka ngijakura-arra, kaka-pa ngunyarri ngaja-nyarrinya*
CAT=1SG.S=3DU.OBL I.GEN-DU uncle-and aunt cry-NARPST
'I was crying for my uncle and aunt.'

85. *Marntarninyan-ta nga=ni=ngarniny ma-na nyalara-ja*
placename(E)-LOC CAT=3PL.S=1PL.EX.O get-PST PROX-LOC

yakurr-partu~yakurr-ju wanyjirra-aru, wulu-ngku ngunyarri-ju
no.good-TYPE~RDP-ERG other-PL.ERG father-ERG aunt-ERG
'My other father and aunty and other old people picked us up here at Mt. Anderson.'

86. *kurlila-ngu nga=ni parti-nya*
south-ABL CAT=3PL.S go-PST
'They came from the south.'

87. *waji-ma-na=ni=ngarniny, nyalara-ja larrkarti*
keep-AUX-PST=3PL.S=1PL.EX.O PROX-LOC boabab.tree
'They looked after us, at this boab tree.'

88. *nyalartu larrkarti=na karri, nyaltu warimpa*
PROX boabab.tree=3SG.S stand.PRES PROX bauhinia.tree
'(See) this boab standing here, and this bauhinia.'

89. *ngalyarra=yarra parti-nya* old man-*tartu nganiji-kura-artu*
s/he&I=2DU.S go-PST -COM whatsaname-GEN-COM

Iliwala-kura-artu, warlparni-ngarra
personal.name-GEN-COM to.here-about
'We both came this way with whatsaname's old man, with Iliwala's (father).'

90. *Iliwala-kura-artu-ju=ngarniny ma-na, pirra-ngu,*
personal.name-GEN-COM-ERG=1PL.EX.O get-PST bush-ABL

Wungkurr-ngu, warlparni-ngarra,
placename-ABL to.here-about
'Iliwala's family got us (and brought us) from the bush, from Wungkurr, down round this way.'

91. *nyaltu-karti he bin bringim*
PROX-ALL he.brought.us(K)
'He brought us to this place.'

92. *ngurrpa=ngarni-ya wani-nya,* any kind *nyaltu mayaru-pa*
ignorant=1PL.EX.S-EP be-PST PROX house-and
'We were ignorant about stuff like these 'houses'.'

93. *wajarri nila nguju=ngarni-ya*
NEG clever REC=1PL.EX.S-EP
'We had no knowledge of all that.'

94. *an, pantangkaju jitany=ngarni kapa-narrinya=ngarni*
and(K) after.that seated=1PL.EX.S sit-NARPST=1PL.EX.S
'From then on, we all stayed here.'

95. *jara-ng-ka-na=ngarni=jiny*
recognise-EP-AUX-PST=1PLEX.S=3PL.O
'We reunited with them.'

96. *kurtiji-ka-na=ngarni=jiny nyaltu-karti, yakurr-partu~yakurr*
swift-AUX-PST=1PL.EX.S=3PL.O PROX-ALL no.good-TYPE~RDP

nganarni-kura-arti
we.all.EX-GEN-PL
'We ran to them here, all our old people.'

97. *nyalara nga=ni wani-nyarrinya, pirra-jaku-yarti*
PROX.LOC CAT=3PL.S be-NARPST bush-DEN-PL
'They were living here, all the bushmen.'

98. *nga=ngarni wani-nya jartarrangka*
CAT=1PL.EX.S be-PST long.time
'We stayed here for a long time.'

99. *kawurtu nyaltu=rna marra-n, mininy*
finish PROX=1SG.S say-PRES language
'That's all I am saying, this story.'

Text 2: Paddy's Story

N̄idya gura minin (My story)

This is the first part of a longer story told by Paddy Jadai in March 1968 at La Grange Mission (Bidyadanga), originally transcribed and translated by Fr. Kevin McKelson. It has been glossed and revised by Brigitte Agnew, November 2019 for this work. Additions to the original translations are given in square brackets.

The original transcript is archived at AIATSIS as an appendix to McKelson (1974), call number MS291:MS292. Access is open.

1. *midily ñana galawara rarinya ñidya gura dyila yini Wilgiwiri*
   mirtily nga=rna kalawarra-r-arri-nya ngijakura jila yini Wiriwirlki
   baby CAT=1SG.S born-EP-INCH-PST I.GEN spring name placename
   'I was born at Wiriwirlgi, my spring.'

2. *wandinyañani banaradya*
   wanti-nya=ngarni panara-ja
   be-PST=1PL.EX.S MED-LOC
   'We stopped there.'

3. *ñayu ñana ubamada*
   ngayu nga=rna wupa-marta
   I CAT=1SG.S small-CPR
   'I was small.'

4. *yuranyañu ñayu gura wulu ñana wilgana mañurl*
   yurranyangu ngayu-kura wulu nga=na wilka-na mangurl
   morning I-GEN father CAT=3SG.S flex-PST spear

   una burru
   wurna-purru
   move.off-PURP
   'In the morning my father straightened the spear in the smoke [for an excursion].'

5. *guwiyardi nayin* *inbinya* *banu*
   kuwi-yarti=na-y=iny *yinpi-nya* *panu*
   meat-PL=3SG.S-EP=3PL.O spear-PST many
   'He speared much game.'

6. *minyawu,* *winguma,* *wilga,* *gumiriri,* *ñinu*
   minyawu, *winykuma,* *wirlka,* *kumirirra,* *nginu*
   cat possum sand.goanna black.headed.python porcupine
   'Pussycat, possum, goanna, carpet snake, porcupine.'

7. *bandaŋgadyu* *gambadya dyu* *walu na* *munina*
   pantangkaju *kampaja-ju* *warlu=na* *murni-na*
   after.that mother-ERG fire=3SG.S gather-PST
   'Then my mother gathered wood.'

8. *dyanimanayin*
   jani-ma-na-y=iny
   cook-AUX-EP=3PL.O
   'Then she cooked the game.'

9. *ñayu ngu* *gadu ngu na* *milganyarinya* *wulu*
   ngayu-ngku *kartu-ngku=rna* *mil-ka-ngarrinya* *wulu*
   I-ERG child-ERG=1SG.S eye-AUX-NARPST father
   'I watched my father [as a child].'

10. *maŋurl* *ñana* *ribunarinya*
    mangurl *nga=na* *ripu-narrinya*
    spear CAT=3SG.S sharpen-NARPST
    'He sharpened his spear.'

11. *wulu ŋgu* *ñanadya* *maranarinya* *wilganu burru*
    wulu-ngku *nga=na=ja* *marra-narrinya* *wilka-nu-purru*
    father-ERG CAT=3SG.S=1SG.OBL say-NARPST flex-INF-PURP

    maŋurl *jugun da*
    mangurl *yukurn-ta*
    spear smoke-LOC
    'Father told me how to bend the spear in the smoke.'

12. *bandaŋgadyu ŋanadya maranarinya una burru*
pantangkaju nga=na=ja marra-narrinya wurna-purru
after.that CAT=3SG.S=1SG.OBL say-NARPST move.off-PURP
'He taught me how to walk when hunting.'

13. *dyana nanya gaŋarinya*
jarna=na=nya ka-ngarrinya
piggyback=3SG.S=1SG.O carry-NARPST
'He carried me on his back.'

14. *gui dyurungul nanya manarinya*
kuwi jurrungkul=na=nya ma-narrinya
meat show=3SG.S=1SG.O AUX-NARPST
'He showed me how to kill game.'

15. *Dyamaya dyu ŋana maranarinya wilganu burru widi widi*
Jamaya-ju nga=na marra-narrinya wilka-nu-purru witi~witi
personal.name-ERG CAT=3SG.S say-NARPST flex-INF-PURP play~RDP
'Dyamaya taught me how to bend a little spear.'

16. *Dyamaya dyu ŋanadya dyurungul manarinya ŋayu-nga*
Jamaya-ju nga=na=ja jurrungkul-ma-narrinya ngayu-ngka
personal.name-ERG CAT=3SG.S=1SG.OBL show-AUX-NARPST I-LOC

gui burru yinbuŋu birri
kuwi-purru yinpu-ngu-pirri
meat-PURP spear-INF-PURP
'Dyamaya taught me how to spear game.'

17. *dyurunkul ŋanadya manarinya gui burru*
jurrungkul nga=na=ja ma-narrinya kuwi-purru
show CAT=3SG.S=1SG.OBL AUX-NARPST meat-PURP

dyagardunu burru
jakart-tu-nu-purru
sneak.up.on-AUX-INF-PURP
'He taught me how to stalk game,'

18. *wadyari dingara burru gui gadi dyagardunu burru*
wajarri tin-karra-purru kuwi-karti jakart-tu-nu-purru
NEG cracking.sound-MAN-PURP meat-ALL sneak.up.on-INF-PURP
'Without making a noise such as breaking a stick.'

19. *yalburu Nardarda ñani murgun dyarinya*
yarlpurru Nartarta=ngarni murrkun jarri-nya
lawmate personal.name=1PL.EX.S three INCH-PST
'We were three together - myself, Dyamai and Andy.'

20. *bandaŋgadyu ñani gui gadi gadiyanarinya una bira gadi*
pantangkaju=ngarni kuwi-karti katiyarri-nya wurna pirra-karti
after.that=1PL.EX.S meat-ALL run-PST move.off bush-ALL
'We went bush together [chasing meat].'

21. *dyina ñani dyianarinya gui winguma*
jina=ngarni jiya-narrinya kuwi winykuma
foot=1PL.EX.S follow-NARPST meat possum
'We looked for possum tracks.'

22. *bandaŋgadyu ñani buñarinya gunminda*
pantangkaju=ngarni pu-ngarrinya kunmin-ta
after.that=1PL.EX.S hit-NARPST tree.hollow-LOC
'We killed them in the hollow of the trees.'

23. *bandaŋgadyu nindi yarinyayarra*
pantangkaju ninti-yarri-nya=yarra
after.that knowing-INCH-PST=1DU.EX.S
'We learnt ... Andy and I.'

24. *gambadyara dyu ba wulu yarra dyu ñani dyarinya wiriya*
kampaja-arra-ju-pa wulu-yarra-ju nga=ni jarri-nya wirriya
mother-DU-ERG-and father-DU-ERG CAT=3PL.S INCH-PST happy

wiriya rinya
wirriya-jarri-nya
happy-INCH-PST
'Our parents were happy, [they were happy].'

25. *yagarbirri ṉani bidimanarinya*
yakapirri nga=ni pirti-ma-narrinya
bark.sandals CAT=3PL.S create-AUX-NARPST
'They made bush boots.'

26. *mamaramada dyu ṉaniyananka baggana banaradya dyila nga*
mamaramarta-ju nga=ni-ya=rnangka paka-na panara-ja jila-ngka
siblings-ERG CAT=3PL.S-EP=RROBL ?meet-PST MED-LOC spring-LOC
'Our brothers and sisters met at that spring …'

Text 3: The Dingo

The story was constructed from a conversation between Widgee Henry, Nancy Missibah (Mijipa) and Brigitte Agnew, prompted by a series of pictures in the 'Beginning Reading' series (number 4) produced by the Western Australian Education Department (n.d.- ?in the 1960s). The text is faithful to the original recording, made in August 1994 at Camballin as transcribed by Brigitte Agnew, but differs from it in: the de-identification of each speaker, merging the utterances of both into one narrative, the editing out of repeated phrases and English/Kriol explanations/prompts, which are occasionally replaced by Mangarla translations given by the speakers in later glossing sessions, where they also added two clauses for clarification (32 and 34).

The original audio is held at AIATSIS in collection AGNEW_B02, field tape 94/14a, digital item number 22467. Items can be accessed with permission from the Mangarla community.

1. *kurrita nyaltu*
dingo PROX
'This is a dingo.'

2. *wurna=na parti-nyarri*
move.off=3SG.S go=IPFV
'It's walking along.'

3. *karri* *karri-ngka?*
   stand.PRES standing-LOC
   ‘Or is it standing still?’

4. *karri-ngka=na* *karri*
   standing-LOC=3SG.S stand.PRES
   ‘It is standing still.’

5. *nguru-n* *nga=na* *nguuuuru*
   howl-PRES CAT=3SG.S howling.noise
   ‘It howls, “Aawuuuu.”’

6. *parnti-ma-n* *nga=na*
   smell-AUX-PRES CAT=3SG.S
   ‘It smells something.’

7. *ngapa=na* *parnti-ma-narri*
   water=3SG.S smell-AUX-IPFV
   ‘It is smelling water.’

8. *kurna-narri=na*
   ingest-IPFV=3SG.S
   ‘It’s drinking it.’

9. *nyalartu,* *kuwi=na* *parnti-ma-n,* *nyaltu*
   PROX meat=3SG.S smell-AUX-PRES PROX
   ‘In this one, he smells meat.’

10. *marranyan* *nga=na* *wanti*
    hungry CAT=3SG.S be.PRES
    ‘He’s hungry.’

11. *kunyarr,* *marranyan* *nga=na* *wani-nyarri*
    dog hungry CAT=3SG.S be-IPFV
    ‘The dog, he’s hungry.’

12. *parnti-ma-n nga=na kuwi*
smell-AUX-PRES CAT=3SG.S meat
'He smells meat.'

13. *mil-ka-nga=na kurnpurlu*
eye-AUX-IPFV=3SG.S blood
'He sees blood.'

14. *kurnpurlu=na parnti-ma-na*
blood=3SG.S smell-AUX-PST
'He smelled blood.'

15. *wajarri, pirti pirti=na mil-ka-nga*
NEG hole hole=3SG.S eye-AUX-PRES
'No, it's a hole! He sees a hole.'

16. *jina=na jiya-narri*
foot=3SG.S follow-IPFV
'He is following footprints.'

17. *kuwi=lpa=na=la*
meat=ASSERT=3SG.S=3SG.OBL
'He thinks there's meat for him.'

18. *kinkirr-nya-nga=na=la kuwi*
watch.for-AUX-PRES=3SG.S=3SG.OBL meat
'He watches for the prey.'

19. *kuwi, pirti-ngka kaniny*
meat hole-LOC below
'There is meat down in the hole.'

20. *pirti, nyaltu=na laju-nangka, nyaltu* now
hole PROX=3SG.S dig-PST.SRC PROX
'It's a hole. This one has dug it. That's what's happened.'

21. *kunji=na=la* *karri*
ambush=3SG.S=3SG.OBL stand.PRES
'He lies in wait for it.'

22. *paja-nku=rtiny* *nga=na*
bite-FUT=EXPECT CAT=3SG.S
'He's ready to bite it.'

23. *kunji=na=la* *karri*
ambush=3SG.S=3SG.OBL stand.PRES
'He lies in wait for it.'

24. *kala-kala nga=na* *ya-n*
run~RDP CAT=3SG.S go-PRES
'He goes running after it.'

25. *mil-ka-ngarri=na*
eye-AUX-IPFV=3SG.S
'He's looking at it.'

26. *jakart-tu-n* *nga=na* *punyja*
sneak.up-AUX-PRES CAT=3SG.S slow
'He sneaks up on it slowly.'

27. *pinjan-tu-n* *nga=na*
creep-AUX-PRES CAT=3SG.S
'He creeps up.'

28. *nyaltu kurtiji=na* *wurta-n*
PROX swift=3SG.S flow-PRES
'He runs along swiftly.'

29. *kala~kala nga=na* *parti,* *patkurru*
run~RDP CAT=3SG.S go.PRES kangaroo.sp.
'It runs away, the kangaroo.'

30. *pantu=lpa=na marrja wurta-n*
MED=ASSERT=3SG.S powerful flow-PRES
'That one goes really fast.'

31. *nyaltu=lpa=na marrja wurta-n, kakurtu* now
PROX=ASSERT=3SG.S powerful flow-PRES finish
'This one goes really fast. That's all now.'

32. *muri~muri nga=na kapat-tu-n*
log~RDP CAT=3SG.S jump-AUX-PRES
'He jumps over a log.'

33. *panjurn kankarra-walu nga=na*
wood above-face CAT=3SG.S
'There is a log sticking up.'

34. *kapat-tu-n nga=na kanka-ngu*
jump-AUX-PRES CAT=3SG.S top-ABL
'He jumps over the top.'

35. *nyaltu=lpa=na lampu wani-nyarri, marranyan-tartu*
PROX=ASSERT=3SG.S sleep be-IPFV hungry-COM
'This one looks like he's going to sleep, hungry.'

36. *wajarri=na paja-ntama*
NEG=3SG.S bite-PSTIRR
'He didn't catch it.'

37. *marranyan nga=na wanti*
hungry CAT=3SG.S be.PRES
'He is hungry.'

Appendix 2: Kinship and social organisation

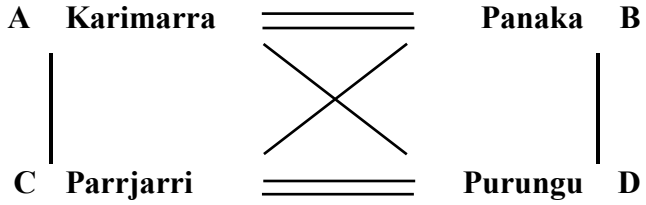
Despite their dispersal, Mangarla people today maintain a strong identity within the mixed communities they live in. Like language use, social organisation has also undergone changes with increased contact. Today, systems in the principle communities, Jarlmadangah Burru/Looma and Bidyadanga vary. Both differ from the traditional system which still exists alongside those used locally and people translate between them easily, although new kinship terms have been adopted to define the additional social distinctions.

The basic social unit is the extended family. People are related often through blood or marriage ties, but all people are related according to the section system which operates.

Sections separate generational levels and divide an individual's kinship relations amongst a limited number of categories. Everyone inherits a 'skin' at birth according to their mother's section. These carry guidelines regarding marriage and affiliation, defining the behaviours expected between individuals, thus providing a framework for unchanging social rules which serve to bind the tribe together and to regulate relationships within and outside the family group. Following is a brief outline of how the section system applies in Mangarla society. For a more detailed description, the reader is referred to Radcliffe-Brown (1930), Berndt and Berndt (1965), Elkin (1979), and McKelson (1981).

The traditional Mangarla system is known as the Kariera system. Consisting of four sections which do not recognise gender differences, it resembles the Southern Nyangumarta, Yulparija and other desert groups, who name the Parrjarri section Milangka and Purrkulu respectively (Sharp 2004:20, McKelson 1981). The letters A, B, C and D in Figure A2.1 identify the four sections.

Figure A2.1 Traditional Mangarla sections



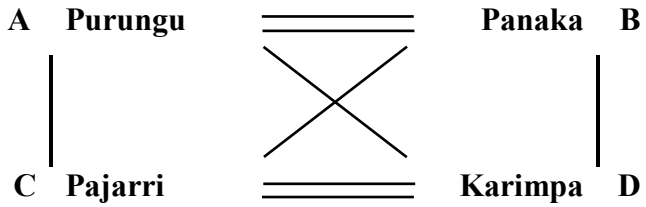
Patrilineal descent is shown by diagonal lines
Matrilineal descent is shown by vertical lines
Marriage is shown by double parallel lines

The section system is split into two moieties. Marriage must take place outside one's own moiety while descent occurs within it. Mangarla people identified to me no special names for the moieties. Alternate generations are also separated, thus disallowing marriage within one's parent's or children's generations.

Sections A, Karimarra, and B, Panaka, marry each other while C, Parrjarri, and D, Purungu, marry. The children of women from section A belong to section C and women of section C have children belonging to section A. Purungu (D) women's children are Panaka (B) and vice versa. For example, I am a Karimarra woman, I marry Panaka and my children are Parrjarri. My brother is Karimarra, he also marries a Panaka and their children are Purungu. Each section contains two generations, grandparents and grandchildren.

When the desert groups arrived at Bidyadanga this system was contextualised with that of the original inhabitants, the Karajarri. The 'Karajarri system' is followed by the Nyulnyul around the Fitzroy River (Elkin 1979:125) and resembles that of the Northern Nyangumarta (Sharp 2004:21). It also has four sections but Karimarra/Karimpa and Purungu sections are reversed, shown in Figure A2.2.

Figure A2.2 Karajarri sections



Patrilineal descent is shown by diagonal lines
Matrilineal descent is shown by vertical lines
Marriage is shown by double parallel lines

Berndt and Berndt (1965:47) note the rapid spread of the subsection system. Elkin (1979:131) dates its arrival in Fitzroy Crossing, 200 kilometers north-east of Looma, between 1920 and 1940 and it is now used by communities around the Fitzroy River, including Jarlmadangah Burru and Looma. In this system, each of the original four

sections is divided into two, creating eight subsections. Where each original section contains two generations, subsections contain only one.

Subsections distinguish the gender of members, giving males names beginning with the palatal stop /j/ while females have names beginning with a nasal /n/ or /ny/. These brother and sister pairs are shown separated by a slash in Figure A2.3 which also shows how each section is divided into two subsections. Thus subsections A1 and A2 are both Karimarra from the Kariera system previously described, each consisting of one generation. A1 marries B1, A2 marries B2 and so on.

Figure A2.3 Subsections

A1	Jangkala / Nangkala	Jungkurra / Nyanjili	**B1**
A2	Jukurru / Nyapurru	Jawanti /Nyapana	**B2**
C1	Jangkarti / Nangkarti	Jampiyinti / Namingki	**D1**
C2	Japalyi / Nyapajarri	Jakarra / Nakarra	**D2**

The traditional system still exists alongside those used locally and people translate between them easily. Skin groups have an influence on both personal and public life. The egocentric classification of kin relations is meshed with the sociocentric (sub)section system. The kin relationships which hold between sections vary according to the section of EGO, as well as their gender, due to the maternal lineage of sections. All people in one section are related to an individual in a limited number of ways, and relationships between sections are also restricted. In the discussion which follows, standard anthropological terms and abbreviations are used to describe kinship terms:

M = Mother	F = Father	B = Brother	Z = Sister
W = Wife	H = Husband	D = Daughter	S = Son
E = Elder	Y = Younger		

E and Y are only used with terms for siblings, for example YB = younger brother, EZ = elder sister. Others used combinations include as MM = mother's mother, FZS = father's sister's son, *etc*.

The Kariera system only has around 15 terms since descent is traced through only two lines, MF and FF, and cross-cousin marriages are allowed *i.e.* between the children of opposite sex siblings - children of FZ and MB (Elkin 1979:93).

Table A2.1 gives basic kinship terms applying within two generations up and down. It shows a few variations in the application of terms, according to the gender of EGO. Firstly, special relationships with the immediate family of one's spouse vary according to one's gender. Secondly, the relationship between grandparents and grandchildren is gender sensitive according to the line of descent. The term *kami* is used for those in the same section as EGO (a woman's daughter's children, and a man's son's children) and *jampartu* for those in a different section (a woman's son's children, and a man's daughter's children). The taboo relationship of mother-in-law applies only between a woman and her son-in-law. The English term is a guide only, rather than a strict translation of the Mangarla term since Aboriginal people categorise kin differently to white Australians. A dash indicates that the relationship is not applicable.

Table A2.1 Relationships according to gender.

ENGLISH	TERM	FEMALE EGO	MALE EGO
younger sibling	*marrkartu*	YB, YZ, MZS, MZD, FBS, FBD	YB, YZ, MZS, MZD, FBS, FBD
older brother	*paparla*	EB MZS, FBS	EB MZS, FBS
older sister	*ngunurtu*	EZ, MZD, FBD	EZ, MZD, FBD
cross cousin	*parnku*	MBS, MBD, FZS, FZD	MBS, MBD, FZS, FZD
husband	*yaku*	H	ZH, WB
wife	*wangu*	-	W
mother	*kampaja*	M, MZ	M, MZ
father	*wulu*	F, FB	F, FB
aunt	*ngunyarri*	FZ	FZ
uncle	*kaka*	MB	MB
grandparent/child	*kami*	MM, FF, DD, DS	MM, FF, SD, SS
grandparent/child	*jampartu*	MF, FM, SD, SS	MF, FM, DS, DD
son/mother-in-law	*malinyanu*	DH	WM
daughter	*kurntal*	D, ZD	D, BD
son	*walaku*	S, ZS	S, BS

Relationship terms recognise gender differences for primary relations but not in the grandparent and grandchild generations where siblings of both genders, who have the same 'skin', are either *kami* or *jampartu,* as explained above. Same-sex siblings of one's parents are not distinguished. Thus M and MZ are both called 'mother' while F and FB are both 'father'. By extension, the children of FB and MZ, or parallel cousins, are called 'brother' and 'sister' and belong to the same section as EGO.

Some relationships are reciprocal while others are not. For example, a grandparent will call a grandchild *kami* or *jampartu* and the child will reply with the same form. However a parent will address her child as *juku* or *walaku* while the child will respond with *kampaja*. *Mali* 'mother/son-in-law' is a reciprocal term applying to the relationship occurring only between a man and his WM, and a woman and her DH.

The more recently adopted systems have different rules regarding cross-cousin marriages and require additional kin terms to distinguish possible marriage partners from proscribed partners, *e.g. jalwal* is unmarriagable *parnku* 'cousin'. Furthermore, the Karajarri system has an additional line of descent and kin term in the grandparent generation, while the Nyulnyul system distinguishes four families in the grandparent generation. This means that today a number of borrowed terms are widely used to define the additional social distinctions. These specify particular affinities within a relationship category. For example, *kirlaki* (from Walmajarri - McKelson p.c. 1993) distinguishes a man's 'FF' from other *kami*'s, and additional terms distinguish cross-cousins and in-laws, *e.g. mukali* 'WMB', *kaparli* 'BW, HZ, FM', *yingalpi* 'WB' from the broader *parnku* 'cousin' group.

Kinship is not always straight forward in practice. Other than supplementary kin terms, practices such as polygamy and non-ideal marriage choices (some allowed by the system, others not), add complexities. So, while a person's membership of a (sub)section cannot change, their kinship relations with individuals may.

Appendix 3: The 'Jarlmadangah corpus'

The identification code of texts and illustrative examples used in this work are listed in the following Table with the name of each person who contributed to them where known. Individual sources are not immediately identifiable for some examples, which may have been uttered in a group setting or given as compilations of sentences from various sources, such as classroom lessons, informal elicitation or conversations.

Table A3.1 Text identification codes linked to consultants

text id.	consultant
1J, 2J, HTD, HTK, HTG	Widgee Henry
1M	Nancy Missibah
1D, 2D, HTS, Ngi	Darby Nangarpany (Nangkiriny)
1R, 2R	Roger (Rakartu)
FK, FKNgi, FKsen	Frank King
1P	Maggie Pingedee
MC, Nya, Psh, PSa (including The dingo in Appendix 1)	Widgee Henry, Nancy Missibah
A	Annie Milgin
H	Harry Watson
G	Gladys Johnson
MW	Michael Mowanti
93sen	Roger Henry, Juli Juli Nancy Yanawana (Maya Maya), Dundora Nancy Missibah
2sen, 3sen	Darby Nangarpany (Nangkiriny), Queenie Milgin Roger (Rakartu), Molly (Takarltarl) Peter Francis, Barney, Harry Watson

In addition to language material, several songs were recorded including two full ceremonies of the four said to "really belong" to the Mangarla people. These were associated with particular locations and owned by individual families. Two belonging to people from Looma were referred to as Bilbari Juju and Kartunyan Juju, and the Wartiya

Juju and Putinyja Juju were sung by the owners, including Peter Clancy, and recorded. Recordings are archived at AIATSIS as AGNEW_B02-022453, -022454, -022455, -022456 and -022457).

The language of these songs is said to be the same conversational Mangarla spoken today, although some of the words were found nowhere else. People easily demarcate the words and translate their meaning. Affixes for tense and case were easily recognised by the researcher when the word was said; however, certain stylistics made this recognition difficult in the actual singing, and transcription was not achieved. Many phonological changes occur. Often this involves the use of epenthesis, phonological additions which occur in day-to-day speech although less frequently than in songs. A primary example of this is the use of the epenthetic /yi/ where Ø > yi / a_ #. This results in the lengthening and dipthongisation of final /a/ to [ai:] or [ei:].

Another popular song, Kartarinya Juju, was sung for the researcher at Bidyadanga in 1991 with a simple description of the accompanying dance. The session was not recorded and it was not so easy for the singer to translate or demarcate the words of this song. Another speaker suggested, although this has not been verified, that this song was in Nyiyaparli, a language spoken far to the south. Von Brandenstein (1970b) suggests that this may be the song language of the Ashburton region. De Grys (1961) describes in detail the circumstances of a performance of what she calls the 'Kartranger' corroborree at La Grange during the early 1950s. In her account, this ceremony has its origins in the country "on the other side of Peak Hill and Meekatharra" (de Grys 1961:91) also far to the south of Mangarla country.

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