

# THE LANGUAGES OF THE KIMBERLEY, WESTERN AUSTRALIA

*William B. McGregor*

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# THE LANGUAGES OF THE KIMBERLEY, WESTERN AUSTRALIA

‘A good introduction to the Aboriginal languages spoken in the Kimberley will also be a good introduction to Australian Aboriginal languages in general. As the world’s leading expert on Kimberley languages, William McGregor has succeeded admirably well on both of these fronts. This book provides an insightful and highly readable account both of the social setting in which the languages are spoken and of their main structural features.’

Alan Rumsey, Department of Anthropology  
The Australian National University

The Kimberley, the far north-west of Australia, is one of the most linguistically diverse regions of the continent. Some fifty-five Aboriginal languages belonging to five different families are spoken within its borders. Few of these languages are currently being passed on to children, most of whom speak Kriol (a new language that arose about half a century ago from an earlier Pidgin English) or Aboriginal English (a dialect of English) as their mother tongue and usual language of communication. This book describes the Aboriginal languages spoken today and in the recent past in this region. The main features of their grammars are outlined, including their sounds and word and sentence structures. In addition, there is discussion of how they are related to one another, how they were and are used in conversational interactions, and their roles and uses in traditional and modern speech communities.

**William B. McGregor** is Professor of Linguistics at Aarhus University. He has studied Kimberley languages for more than two decades. He has published grammars of four of the languages, and written articles on a variety of topics including their grammar, history, semantics, and discourse organisation.

The story of Kimberley Aboriginal languages cannot be satisfactorily told without recognising the crucial contributions of individual Aboriginal men and women. This work contains photographs of a number of Aborigines now deceased who have provided significant input. Readers should be aware that in some communities seeing photographs and the names of dead people may cause distress, especially to close relatives. Before using this book in such communities, the reader should determine the wishes of senior members and take their advice on safeguards.

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TO HUGH AND SAM

*Mirlimirliya yoodbidi wangarragganoowoo.*

‘We’ve got to put the words on paper lest they get lost.’

(Gooniyandi, Lanis Pluto to William McGregor  
at Muludja, 1980)

*Ngantipa nyamurnalu kurnka karru, wayinta karrwawu nyawama jaruma  
ngaliwanyma? Jaru nyurruluny ngunta karrwawu mikilyiyirri.*

‘When we old people die, will you keep this language that belongs to you and me?  
You should keep your own language in your mind.’

(Gurindji, an unnamed community senior,  
cited in Dalton *et al.* 1995: 83–4)

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## PREFACE

This book provides a general account of the Australian Aboriginal languages spoken today and in the recent past in the Kimberley region of the far north-west of Australia. It describes their vocabularies (words, how they are formed and their meanings), their structures (what they are like – their grammars), how they resemble and differ from one another (their ‘types’ – how they can be classified, and the relations among them), how they were and are used in communication between people to convey meaning, and what the modern language situations are like (the role of Aboriginal languages in daily life, their social uses and values). To give some appreciation of the languages and their use – to help them come alive – some illustrative stories are given together with English translations and discussion of their organisation and style of delivery.

It is intended for use both as a textbook and as a reference work. It could be used as a textbook for a one-semester introductory course in Australian linguistics for advanced undergraduate and postgraduate students in universities in Australia and elsewhere. It should also be suitable as auxiliary reading for Kimberley Aboriginal students attending more practically oriented courses in educational institutions such as Karrayili Adult Education (Fitzroy Crossing), Kimberley College of TAFE (various locations), Notre Dame University (Broome), Pundulmurra College (Port Hedland), and Batchelor Institute of Indigenous Tertiary Education (Batchelor, Northern Territory). The book was also written with more general audiences in mind, including persons of European descent living in the Kimberley, many of who interact with Aboriginal people on a regular basis in the course of their work, tourists visiting the area, and other persons with an interest in the Kimberley region. For the latter groups of reader there are few suitable reference works that span the gap between literacy materials for particular languages, and highly technical academic works, impenetrable to all but specialists. There is also something for academic linguists and anthropologists interested in finding out more about Australian languages.

A minimum of specialised linguistic knowledge is presumed throughout, although familiarity with fundamental grammatical notions that most people learn in school, such as noun, verb, word, sentence, would be advantageous. Linguistic terminology and concepts are developed as required; instead of a glossary of technical

terms, the index points to the page where each term is first introduced and explained. At these first mentions, the terms are given in small capitals. I have not, however, eschewed discussion of issues, and in places fairly technical arguments and topics are presented, some of which (especially in Ch. 10) are not found in general works such as this. To ignore these would, in my view, neither do justice to the current state of knowledge, nor reveal what it is that makes studying the languages exciting.

To ease the way into the sometimes quite technical treatment of grammatical topics in Chs 6–8, 10, and 12, Ch. 5 develops the major concepts and terminology of grammar, from the standpoint of Kimberley languages. This chapter also serves as an overview of the major grammatical characteristics of the languages.

In consideration of non-academic readers, I have tried to avoid excessive breaking up of the flow of the text by reducing the number of in-text references and endnotes. Each chapter concludes with a section ‘Further reading’ which mentions some additional readings relevant to the topics of the chapter. The section ‘Languages and sources’ at the end of the book lists the main references for each language. In most cases the endnotes supply additional information of interest to specialists, and can be ignored by the general reader.

Why restrict the book to Kimberley languages rather than Australian Aboriginal languages generally?

For one thing, a number of good general introductory books on Australian languages appeared during the 1980s, including Dixon (1980), Blake (1981, 1987), and Yallop (1982). Even though these books are now somewhat dated, I see no need for another book of similar scope and orientation. All of them, however, suffer from an inordinate focus on what are called Pama-Nyungan languages – a group of languages that covers the entire continent except for the Kimberley and Arnhem Land (see Map 1 and §2.4). Non-Pama-Nyungan languages (i.e. all traditional languages other than the Pama-Nyungan ones) are given short shrift, and by authors lacking in first hand experience with them. With its focus on Kimberley languages, and my expertise in non-Pama-Nyungan languages, this book presents something of an antidote to this unfortunate bias.

Nevertheless, I did not want to go to the opposite extreme and make non-Pama-Nyungan languages the subject of this book, to the exclusion of Pama-Nyungan languages. I rest content with challenging the implicit message that Pama-Nyungan language represent the ‘norms’ for Australian languages. The Kimberley region is a fascinating and diverse one, geographically, biologically, culturally, linguistically, and historically. But the diversity falls within limits, and a number of features are shared amongst its languages, Pama-Nyungan and non-Pama-Nyungan. By giving the book a regional focus it is possible to provide some notion of the unity, diversity, and complexity of the languages and language situations without sacrificing depth of treatment for breadth of coverage.

Second, recent years have seen an explosion of interest among the members of general Australian public in things Kimberley, including its history, prehistory, geography, flora and fauna, indigenous people, their music (witness such successful musicals as *Bran Nue Dae* and *Corrugation Road*), their art



(aside from traditional rock art – especially in the Wandjina and Bradshaw traditions – and body painting, a number of Kimberley artists – among them Queenie McKenzie, Rover Thomas, George Mung Mung, Janangoo Butcher Cherel, and Mervyn Street – have produced fine works of art that have sold successfully in Australian cities and overseas), and their oral literature, among other things. A number of books are available on many of these themes, some quite technical. Notable for its absence is a general book on the indigenous languages; the present book is intended in part to fill this void.

In my experience, talking about grammar – especially of ‘exotic’ languages such as the topic of this book – tends to invoke two different types of reaction of incomprehension, and rapid conversation closure. For some, grammar means the sets of explicit rules they learnt at school, which they (quite rightly) believe do not exist for Australian languages. That this does not imply that speakers of the languages might be following implicit (or unconscious) rules of structuring their utterances seems to fall on deaf ears, and when explanation begins interest soon wanes and hands are thrown up in despair and puzzlement, or facial expressions show disbelief. For another group, similar reactions of fear are invoked that arise when speaking about mathematics: there is something mystical and incomprehensible about both – esoteric knowledge that they will never be able to acquire. I hope that this book will do something to convince both groups that with a little investment of effort it is possible to understand traditional Aboriginal languages – they are neither impoverished systems too simple to require study, nor transcendental phenomena beyond the ken of ordinary Westerners. Moreover, I hope the book will show that study of these things is not purely an ivory-tower enterprise, but has practical applications and relevance.

While I have tried to be even-handed in my treatment of Kimberley languages by giving examples from a variety of different languages, my own involvement with the languages will be evident in the frequency of reference to those I am most familiar with myself (Gooniyandi, Nyulnyul, Warrwa, Gunun/Kwini, and Wangkajunga). There is a dearth of reliable information on many aspects of many Kimberley languages, and one inevitably falls back on one’s own experience and data – and feels more comfortable with talking about the languages one is most familiar with.

Bill McGregor  
Århus, February 2003

A new survey of Australia languages, Dixon (2002), appeared while this book was in press. The reader is warned that there are many conflicts of opinion and fact between the two books; these cannot be adequately dealt with in the present work. Suffice it to say that nothing in Dixon’s book causes me to revise the account presented on the following pages.

WBM  
Århus, April 2004

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My first and foremost debt is to those Aboriginal people who have taught me their languages for over two decades, putting up with endless hours of questioning. Among them I single out the following persons for their especially significant contributions: Gooniyandi speakers Jack Bohemia<sup>†</sup>, Rene Chestnut, Joe Dimeye<sup>†</sup>, Dave Lamey<sup>†</sup>, Suzie Lamey, Lanis Pluto<sup>†</sup>, David Street, and Mervin Street; Nyulnyul speakers Carmel Charles<sup>†</sup> and Magdalene Williams<sup>†</sup>; Wangkajunga speakers Michael Angelo<sup>†</sup> and Tommy May; Warrwa speakers Maudie Lennard and Freddy Marker<sup>†</sup>; Unggumi speakers Billy Munro<sup>†</sup> (Morndi) and Ginger Warrebeen<sup>†</sup>; Gunin/Kwini speaker Dolores Cheinmora; and Buru Goonak<sup>†</sup> and Daisy Utemorra<sup>†</sup>, who were amongst the very few who remembered any words of Yawijibaya, Umiida, and Unggarrangu.

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I have benefited greatly from students' input to courses on Australian languages I have taught during the past decade or so at various institutions, including Bond University, University of Melbourne, Stockholm University and the University of Aarhus. The first draft of the book was trialed in a course conducted in the latter institution; the final version has profited considerably from the input from the participants in that course. Joyce Hudson also used Chapter 4 in a course in Nulungu College (Broome), and passed on valuable feedback.

I acknowledge the generosity of many individuals who have shared data or ideas with me, discussed issues with me, commented on draft chapters or sections, and/or corrected errors in the information presented on particular languages, including Barry Alpher, Joseph Blythe, Claire Bown, Therese Carr, Siobhan Casson, Howard Coate<sup>†</sup>, Nick Evans, Helen Harper, Komei Hosokawa, Joyce Hudson, Emily Knight, Frances Kofod, Mary Laughren, Patrick McConvell, Kevin McKelson, David Nash, Edith Nicolas, Keeley Palmer, Anthony Peile<sup>†</sup>, Nick Reid, Alan Rumsey, Thomas Saunders, Eva Schultze-Berndt, Janet Sharp, Jane Simpson, Bronwyn Stokes, Tsunoda Tasaku, Nick Thieberger, Jean-Christophe

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# ABBREVIATIONS AND CONVENTIONS

I have tried to avoid using abbreviations as far as possible, in most cases restricting them to glosses in example sentences, and occasionally for cited forms in the text. Just a few of the lengthy technical terms used repeatedly in the text are abbreviated; but language names are always spelt out in full, since using abbreviations would adversely affect the comprehensibility and accessibility of the work, even if it saved a few pages. The following is a list of the main abbreviations that are used. (A few that are used only in one section are omitted because they are explained in the text of that section or in endnotes.)

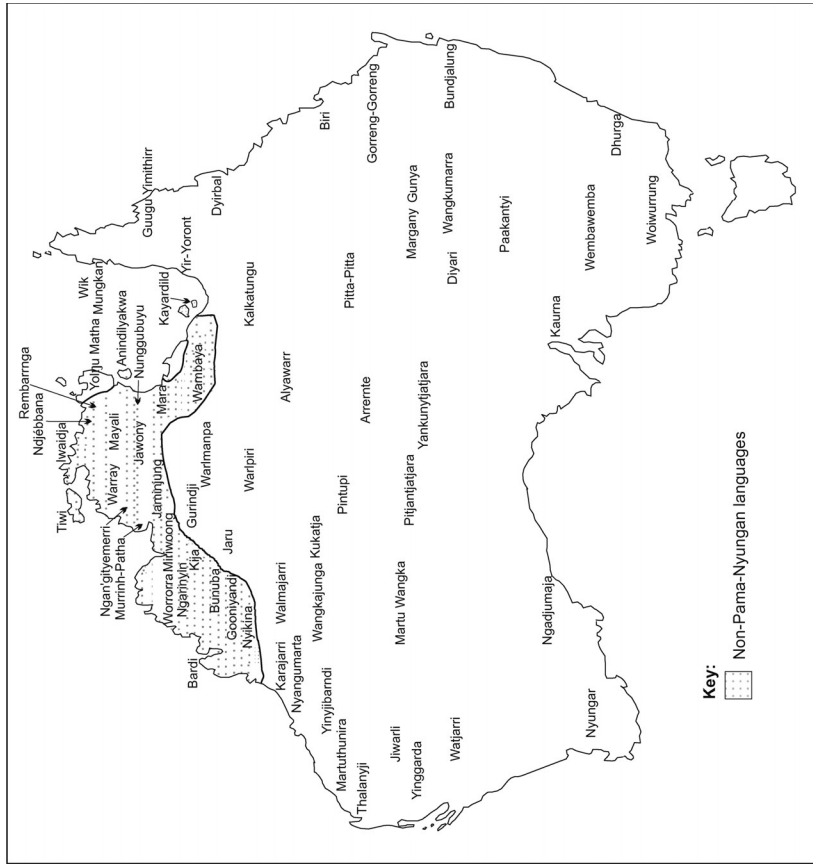
ABL	ablative ('from')
ABS	absolutive (object and intransitive subject); see §7.2
AG	agentive ('-er')
AILF	Australian Indigenous Languages Framework
ALL	allative ('to', 'towards')
APP	applicative ('do with')
ASP	aspectual ('happening at the same time, or different time')
ASSOC	associative (something associated with a thing)
aug	augmented (add one or more things to a minimal (smallest) set); see §6.1.2
BA	Bachelor of Arts
C	consonant
CAT	catalyst; see §5.2
CAU	causal ('because')
CAUS	causative ('make')
CHAR	characterised by (indicates a characteristic property of some thing)
COM	comitative ('with')
COMP	complementiser (functions to connect a subordinate clause to a main clause, a bit like 'while')
CONT	continuous ('going on over a period of time', 'continuously')
CVC	compound verb construction; see §8.1 and §8.3
DAT	dative ('for')
du	dual ('two')

EMP	emphatic ('very', 'really')
ERG	ergative ('by'); see §7.2 and §12.3
EXC	exclusive (excluding the addressee: 'us, not including you')
EXCLAM	exclamative (indicates an exclamation (!))
FAC	factive ('it is a fact that')
FEM	feminine (of nouns, usually females – 'she')
FREQ	frequency: number of times (e.g. 'twice')
FOC	focal (something to which attention is specifically drawn)
FUT	future (later time)
GEN	genitive ('X's')
HAB	habitual ('happens often or all the time')
HTH	hither ('this way', 'towards here')
ICP	inceptive ('begin')
IMP	imperfective ('be going on at a certain time')
IMPL	implicated ('involved in' – an event somehow involved in another)
IMPER	imperative ('do it!')
inc	inclusive (including the addressee ('me and you (and perhaps others)'))
INF	infinitive (like a <i>to</i> - form of a verb in English)
INST	instrumental ('with', 'using')
INTENS	intensifier ('very', 'much')
INTER	interrogative (question, '?')
IPA	International Phonetic Alphabet (where phonetic representations are given, they use the letters and symbols of this alphabet)
IRR	irrealis ('didn't or mightn't happen')
IT	iterative (repeated instantaneous actions)
IV	inflecting verb; see §5.1 and §8.1
KLRC	Kimberley Language Resource Centre
LOC	locative ('at', 'in', 'on')
MA	Master of Arts
MASC	masculine (of nouns, usually males – 'he')
MDWG	Mirima Dawang Woollab-gerring Language and Culture Centre
MID	middle (form of a bound pronoun – §6.3)
min	minimal, number of things in the smallest set of a particular type; see §6.1.2
NAATI	National Accreditation Authority for Translators and Interpreters
NEUT	neuter (of nouns, usually things – 'it')
NFUT	non-future ('happened in the past or present')
NP	noun phrase (e.g. 'the big dog')
NPA	non-past ('didn't happen before – may be happening now, or may happen later')
N/P	neuter/plural (a grouping of nouns that are either inanimate or plural)

OBJ	object form of a bound pronoun (e.g. ‘me’ rather than ‘I’); see §6.3
OBJCOMP	complementiser marking a subordinate clause that modifies the object of the main clause
OBL	oblique form of a bound pronoun, neither subject nor object (‘for/on me’)
PA	past (‘happened before’)
PAIR	forming a pair together
PER	perlative (‘via’, ‘through’, ‘along’)
PF	perfective (‘finished’, ‘completed’)
PhD	Doctor of Philosophy
pl	plural (more than one)
POS	possessor
PP	postpositional phrase (an NP that is accompanied by a postposition)
PRES	present (‘happening now’)
PRIV	privative (‘without’)
PROG	progressive (in the process of happening, continuing to happen)
PUNC	punctual (an event that happens in an instant)
PURP	purposive (‘for’)
REF	reflexive and reciprocal (‘to oneself’, ‘to one another’)
REL	relator (relates clauses (events) together, marking one as less important: ‘when’, ‘where’, ‘why’)
REP	repeated (‘again’)
SEM	semblative (‘like’)
SEQ	sequential (‘after’, ‘following another event’)
sg	singular (‘one’)
SUB	subject form of a bound pronoun (e.g. ‘I’ rather than ‘me’); see §6.3
SUBCOMP	complementiser marking a subordinate clause that modifies the subject of the main clause
SUBJ	subjunctive (‘it is hoped or wished that’, ‘I hope or wish that’)
SVC	simple verb construction; see §8.1 and §8.2
TR	transitive conjugation (in Nyulnyulan languages); see §8.2.3
TTH	thither (‘that way’, ‘away from here’)
UV	uninflecting verb; see §5.1 and §8.1
V	vowel
VP	verb phrase (e.g. ‘will be going’)
∅	zero; see §5.1
1	first person (‘I’, ‘we’)
2	second person (‘you’, ‘you lot’)
3	third person (‘he’, ‘she’, ‘it’, ‘they’)
1&2	first and second person (‘me and you’)

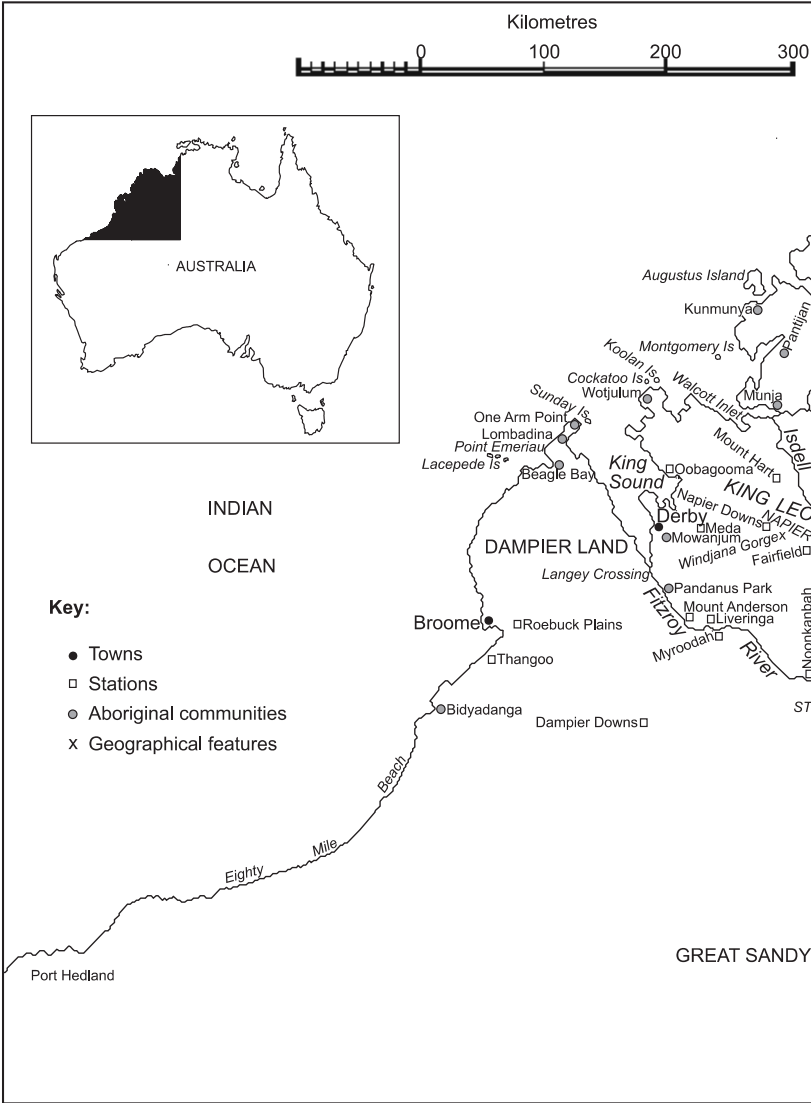
- / marks the end of a tone unit in the language line; in gloss lines, indicates categories that are conflated, that is, where it is not possible to easily align the gloss with a morpheme in the language line
- // encloses phonemes (i.e. distinctive sounds); see §4.1
- [ ] encloses a phonetic representation of an utterance, using IPA symbols; see International Phonetic Association (1999)
- ( ) encloses an optional item (one that may or may not occur in the particular utterance or construction)
- > acting on
- < acted on
- : in the language line and in material enclosed in square brackets, marks a long vowel; in the gloss line, separates two or more words that correspond to a single word or morpheme of the language line
- \* a reconstructed form of a word from an earlier stage of a language; sometimes used to mark a word or sentence as ungrammatical or unacceptable
- separates morphemes (see §5.1) within a word
- specifies a negative value for a feature
- + in analyses of Gooniyandi verbs, this symbol separates certain morphemes that are very tightly connected; in certain structural formulae, it represents items in sequence; elsewhere indicates a positive value for a feature
- ' separates the two main parts of the verb in Bunuba
- ˈ over a vowel, indicates a main or primary stress
- ˌ over a vowel, indicates a secondary (weaker) stress
- separates syllables of a word; used in some orthographies to separate a pair of letters that usually represent a single sound when they instead represent two – for example, *n.g* in Gooniyandi orthography represents an *n* followed by a *g*, while *ng* represents the last sound of *sing*
- ?? in gloss lines for example sentences indicates a morpheme the meaning of which is not known

Inflecting verbs (see §5.1 and §8.1) are cited in all capital letters to distinguish them from other types of words and morphemes. Occasionally they have a subscripted number – this is to distinguish between different inflecting verbs that have the same basic form. Elsewhere subscripts are used following a form or gloss to distinguish between things that look the same, but really are different.

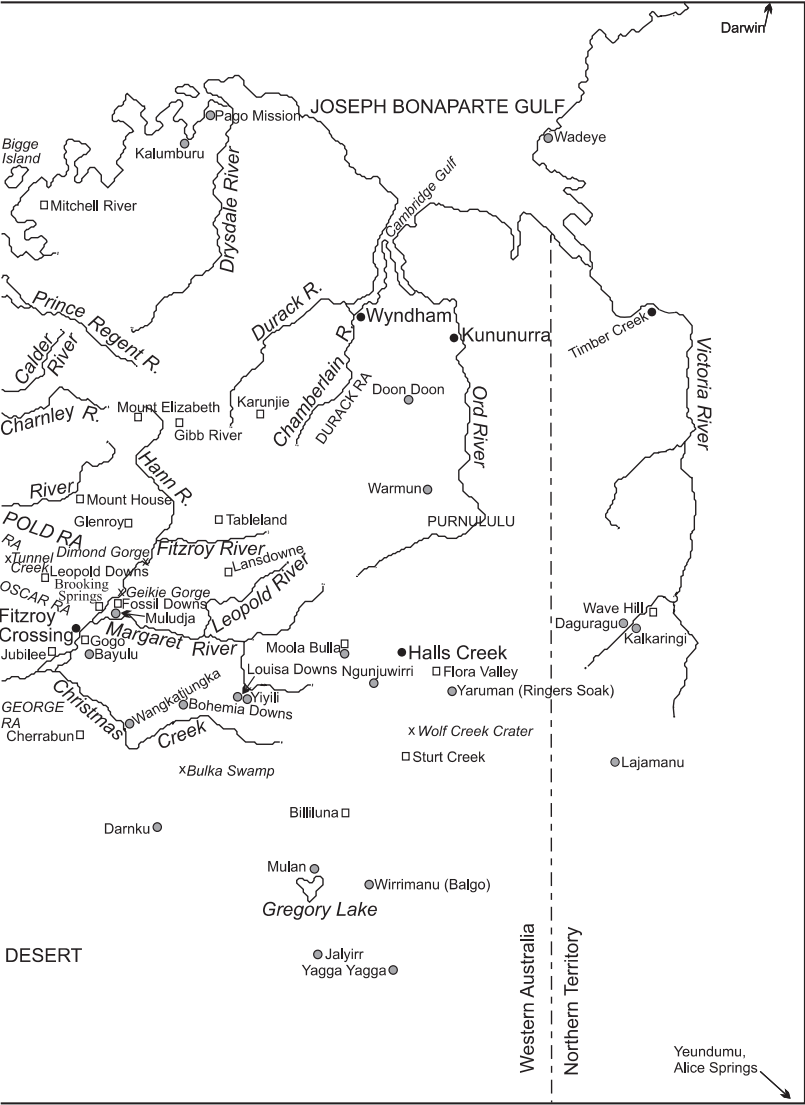


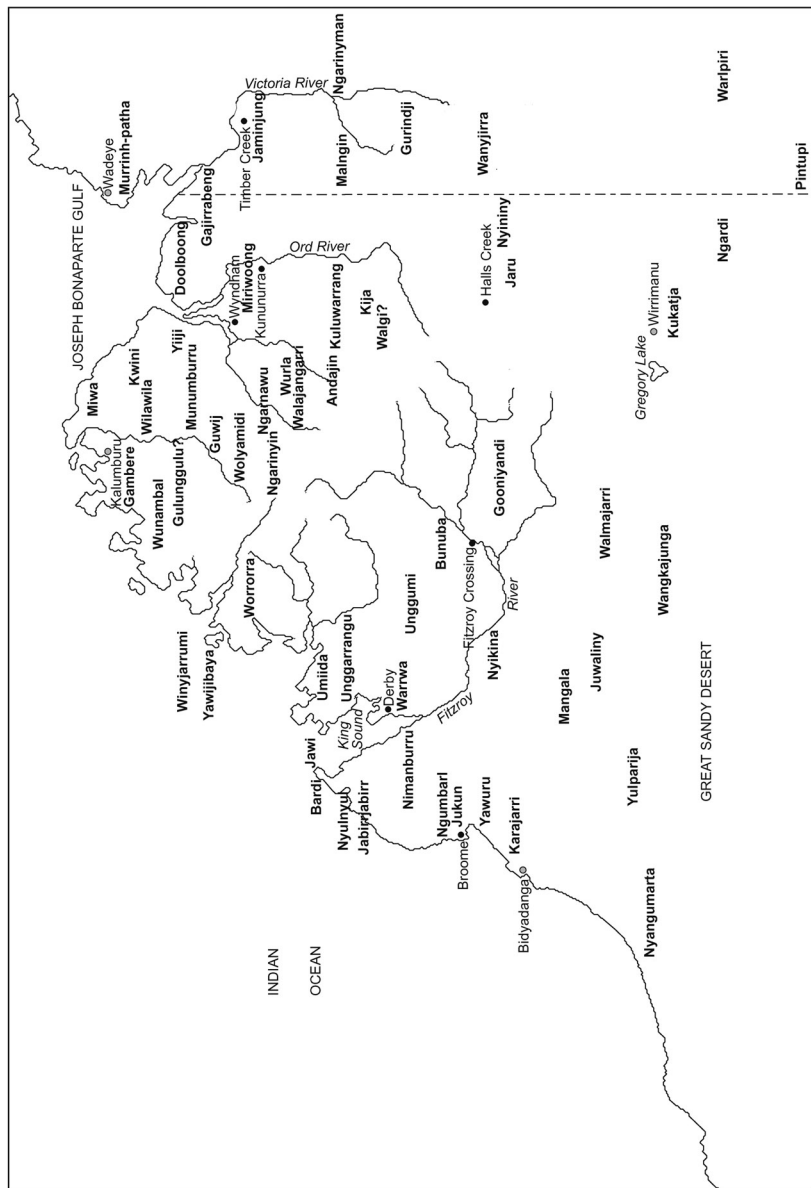
*Map 1* Some languages of Australia.





Map 2 The greater Kimberley region.





Map 3 Traditional languages of the Kimberley region.

# INTRODUCTION

## 1.1 Nature of Australian languages

Most Australians know next to nothing about the languages of the original inhabitants of the continent. In fact, misconceptions abound. Many believe – and this was frequently reinforced by what they were taught in school – that there is (or was) a single Aboriginal language, that this was a primitive language spoken by a primitive people, and that it had no grammar and at most a few hundred words, supplemented by gestures and grunts. It is also commonly thought that the sounds mimicked sounds of nature, and that there were no abstract terms such as *love* and *hate*, only words for specific material objects.

In fact, there were and still are hundreds of different Aboriginal languages spoken on the Australian continent. According to political criteria, there could be 500–600 languages spoken on the continent at the time of European contact – roughly one for each ‘tribal’ unit, the speech of one ‘tribe’ always being different from the speech of its neighbours (see §2.1). Sometimes the differences are very small, permitting members of one ‘tribe’ to understand members of another without previous experience of their form of speech. In these circumstances, linguists generally speak of different dialects of a single language, reserving the term language for cases where the differences are more substantial, and members of one group need to learn the other’s form of speech in order to communicate. Under this definition, something like 200–250 different languages were spoken in Australia at the time of first contact.

Australian languages are not ‘primitive’. In fact, not one of the world’s 6,000–7,000 languages can be described as ‘primitive’. Each has its own complex grammatical system and vocabulary of many thousands of words, including abstract terms. Moreover, all languages are used in certain social, cultural, and environmental context, and this is reflected in various ways in their grammar and vocabulary. It is not surprising that traditional Aboriginal languages had no terms for Western scientific and technological concepts such as ‘differentiable manifold’, ‘attractor’, ‘atom’, ‘quark’, ‘computer’, ‘television’, and so on. Nor did many languages have terms for specific numbers above about three or four. On the other hand, Aboriginal languages are better developed than English in certain

areas, including kinship – instead of the handful of terms found in English they typically had scores of different words for different types of relative (see §3.2 below) – and flora and fauna, where the distinctions and classifications made in everyday speech rival those of scientific discourse in English.

As in all languages, the sounds of some words in Aboriginal languages are suggestive of their meaning. Many Kimberley languages call the peewee or mudlark *diyadiya* (pronounced like ‘dear-dear’) after one of its calls; likewise the word for willy-wagtail often resembles its characteristic sound – *jindiwirrinyi* in Gooniyandi, *jindibirrbirr* in Nyulnyul, and *jigirrijeng* in Miriwoong. And in various languages *dul* (rhyming with ‘pull’) means ‘bang’, and hence ‘shoot’. But such words are the exception rather than the rule, and the sounds of words in Aboriginal languages are generally as ‘arbitrary’ and unpredictable as in any other language. Who could guess that the meaning of the Gooniyandi word *thaarra* is ‘dog’, or that *yoowooloo* means ‘man’?

It has been known for a long time that there are some striking similarities amongst the languages of Australia. Most have a word like *ngayu*, *ngaju*, or *ngay* for ‘I’, and many have *ngali* for ‘we two’. There are also widespread words including *jina* ‘foot’, *kumbu* ‘piss’, *kuna* ‘shit’, *pina* ‘ear’, and others. There are also some striking similarities in their sound systems. Most – though certainly not all! – have just three vowels, *i*, *a*, and *u*, and in most the first syllable of a word is stressed. Similarly their grammars share a number of features, such as the use of case-marking suffixes (similar to Latin) instead of prepositions like English *to*, *from*, and so on. Thus, to express ‘to the camp’ in Walmajarri, one says *ngurra-karti* where *ngurra* means ‘camp’, and the suffix *-karti* means ‘to’. Notice that the Walmajarri expression does not have a word for ‘the’; this is also a common feature of Australian languages. Another well-known characteristic of Australian languages is their extreme freedom in word order. Any order of the words in a simple sentence is usually acceptable, and all have substantially the same meaning. There are also various grammatical differences among Australian languages, and Kimberley languages differ in some important ways from languages of other parts of the continent.

Many linguists believe – though this has not been proved – that all Australian Aboriginal languages (with perhaps one or two exceptions) belong to a single family, and that they all ultimately come from a single language, usually called proto-Australian (Dixon 1980: 3). How long ago this language might have been spoken is anyone’s guess; however, it is likely to have been many thousands of years before the present. During the subsequent millennia, many differences have evolved, giving rise to the linguistically diverse situation of today. As yet this is hypothetical, and we do not know whether such a parent language existed for all modern Australian languages. Nor have any links been demonstrated with languages from other parts of the world, including the nearby island of Papua New Guinea, which was connected with the Australian continent as recently as 8,000 years ago. There are, however, some intriguing possibilities (see e.g. Foley 1986: 269–75; Nichols 1997).

## 1.2 The Kimberley environment

The central or core Kimberley region comprises a plateau region in the far north-west of Western Australia, extending from a rugged Indian Ocean coastline to the Fitzroy River in the south and the Ord River to the east. With an area of some 360,000 square kilometres – approximately the size of Germany and half as big again as each of Britain, New Zealand, and the state of Victoria – it is one of the least known, most inaccessible, and wildest regions in Australia, and contains some incredibly impressive scenery. What is generally referred to as the Kimberley these days is a somewhat larger region that extends south approximately 200 kilometres and east slightly less, making over 420,000 square kilometres in all. We will generally take the term in its usual sense, only when necessary distinguishing between the core Kimberley region and the wider Kimberley. Named after John Wodehouse, first Earl of Kimberley and British colonial secretary during 1870–1874 and 1880–1882, respectively, it is sparsely populated with an estimated population of just over 30,000 residents in 2000, of which slightly under a half were of Aboriginal descent.

The countryside varies considerably both in terms of geology and climate, and consequently in terms of vegetation and animal life. Geologically, the Kimberley consists of four main divisions: the Kimberley Block, the Fitzroy River Basin, the Ord River Basin, and the Great Sandy Desert.

The Kimberley Block is the northernmost division, and comprises some 180,000 square kilometres. It is a plateau composed mainly of sandstone with patches of basalt, dipping in a north-westerly direction to a drowned coast. The



*Plate 1.1* Walcott Inlet (© Rob Jung).

sandstone of the plateau, formed around 1,800 million years ago in the Precambrian period, is deeply incised by rivers radiating out from the Mount House plateau area, the Charnley, Prince Regent, King Edward, Drysdale, and Durack rivers. The King Leopold Ranges bound the Kimberley Block on the southwest, and extend from Collier Bay in a south-easterly direction for around 240 kilometres. This range averages 600 metres in height, with the highest peaks, Mount Ord and Mount Broome rising just over 900 metres. The rugged Kimberley coastline is cut by drowned river valleys. Tidal variation is extreme, reaching 12 metres in places (e.g. Hanover Bay), giving rise to strong currents that made shipping hazardous in the late nineteenth and early twentieth century. The region is sparsely wooded; perhaps the most distinctive feature is the boab tree, a relative of the African baobab, a moisture-storing tree of wide girth.

The Fitzroy River Basin, dating to the Ordovician period (around 438–505 million years before the present), is a large subsidence area between the Western Australian shield in the south and the Kimberley Block to the north. In this basin flows the Fitzroy River, the largest river of the state, which traces a 525 kilometre course from its source in the Durack Range in the East Kimberley to its 10 kilometre-wide mouth at the southern end of King Sound. Despite its large catchment area, the Fitzroy River is reduced over much of its course to a series of water holes in the dry season. But during the wet season it carries an enormous volume of water that spreads out in a flood plain 100 or more kilometres wide in the lower reaches of the river.

Along the northern fringe of the Fitzroy Basin stand a series of limestone ranges running in a south-easterly direction for some 250 kilometres, from Napier



*Plate 1.2* A boab tree (© Kevin Shaw).



*Plate 1.3* Countryside towards Jirriyoowa (Cabbage Gorge) (© Tamsin Wagner).

Downs in the west to Bohemia Downs in the east. The ranges vary from 3 to 5 kilometres in width, and rise some 50 to 100 metres above the surrounding plains. They form a part of a massive barrier reef that formed some 360 million years ago in the Devonian period, when the area lay under a shallow sea. This reef probably then extended for more than 1,000 kilometres around the seaward margin of the Kimberley; evidence of it is also seen to the north of Kununurra, where it forms the Ningbing Range. These ranges represent some of the finest examples of fossilised reefs found anywhere in the world; marine fossils can be seen in their weathered walls.

A number of beautiful gorges have been cut into the limestone by rivers and creeks, the best known being Windjana Gorge (Lennard River), Tunnel Creek, and Geikie Gorge (Fitzroy River). The gorge at Tunnel Creek forms a natural tunnel approximately 750 metres in length through the limestone of the Napier Range. Geikie Gorge is the largest of the gorges, extending 8 kilometres through the ranges. During the wet season, the river can turn into a raging torrent, running through the gorge to heights of more than 16 metres above the dry season level. At the height of the dry season it consists of a single large waterhole, inhabited by Johnstone River crocodiles, and freshwater species of sawfish and the Bull shark, relics of the marine period that have adapted to the freshwater environment. Geikie Gorge contains a number of sacred sites of the Bunuba people, and tourists should see the gorge from one of the tours run by Darngku Heritage Cruises, or CALM (Department of Conservation and Land Management).





*Plate 1.4* Limestone range near Danggu (Geikie Gorge) (© Tamsin Wagner).

The Ord River Basin, which also dates to the Ordovician period, bounds the Kimberley Block to the east, and contains the second largest river of the region, the Ord River. This river rises in the Albert Edward Range and follows an easterly then northerly course for some 500 kilometres before it enters the sea at Cambridge Gulf. The river was dammed for irrigation in 1967 at the Kununurra Diversion Dam, and later, by a larger dam 40 kilometres south of Kununurra, completed in 1972. This dam holds back Lake Argyle, under which lie a number of important sacred sites of the Miriwoong people. Until recently, expected agricultural developments failed, and the Ord River Scheme has become Australia's most costly and controversial irrigation projects. Recent plans to dam the Fitzroy River have met with strong opposition from both Aboriginal communities and sections of the white population, and the project seems to have been shelved for the time being.

Perhaps the most spectacular feature of the Ord Basin is Purnululu (Bungle Bungle Range) declared a national park in 1987, and assigned World Heritage status in 2003. The range is formed from sandstone laid down in horizontal beds during the Devonian period, some 350 million years ago. Alternating bands of light and dark sediments in the sandstone reflect changes in the moisture content and texture of the layers. Alternating protective skins of silica and lichen give rise to horizontal bands of orange and black in the rock; beneath the skins the rock is white and friable. The wind and weather have sculpted the soft sandstone into beehive-shaped domes along the southern flank of the range, that rise to heights of 300 metres above the surrounding plain. This array of domes ranks as one of the most outstanding examples of sandstone towers in the world.

The Great Sandy Desert forms the southern border of the Kimberley region, and merges into the Gibson Desert and Great Victoria Desert to the south. It is characterised by 8–9 metre high linear sand dunes that are partly vegetated by spinifex and mulga trees. The main period of dune-formation ended around 10,000 years ago, though the dune crests remain active. Surface water is scarce, most water being found in rockholes protected from direct sunlight. There are of course no major rivers, and the lakes contain no water, except after major rains; otherwise, they are dry, salt-encrusted lake beds.

One interesting geographical feature located near the border between the Fitzroy Basin and the Great Sandy Desert, around 130 kilometres south of Halls Creek, is the Wolfe Creek meteorite crater, called Gandimala in Jaru. This was formed around 300,000 years ago when a huge iron meteorite crashed into the



*Plate 1.5* An antbed (© Tamsin Wagner).

earth. The crater is the second largest on the earth from which meteorite fragments have been collected, and is circular in shape, with a diameter of about 900 metres. The floor is about 60 metres below the rim, which rises 35 metres above the surrounding plain; it is thought that the crater may have been up to 200 metres deep before being filled with wind-blown sand.

Deposits of various minerals have been found in the Kimberley. The earliest finding was of gold at Halls Creek in 1881, which was followed a couple of years later by a short-lived rush. In the past few decades, the region has been extensively investigated for its mining potential – much of the region is criss-crossed by ‘cut lines’, straight roads cut through the countryside by mining companies for their explorations – and a few commercial ventures have recently been undertaken. Diamonds are mined at Argyle, situated about 110 kilometres south-south-west of Kununurra, and currently the biggest diamond-producing mine in the world; and lead and zinc are mined at Cadjebut, about 80 kilometres south-east of Fitzroy Crossing. Until the late 1990s, iron ore was mined on Koolan and Cockatoo Islands. A few bores produce relatively small quantities of oil, and a few small-scale operations mine Kimberley colourstone and black granite. Mining raises important issues of Aboriginal ownership and management: concerns that are beyond the scope of the present book. (The Kimberley Land Council is involved in protecting the rights of Aboriginal land owners in relation to mining, tourism, and other commercial considerations.)

Two main seasons are distinguished in the English of Kimberley residents: the wet, from about December to March, and the dry, from April to November. These are apt names: in most years no rain at all falls during the dry. The period at the end of the dry season, just prior to the onset of the wet, is perhaps the least comfortable, being characterised by high temperatures (40°C and over during the day) and high humidity. Cyclones develop during the wet season; however, they usually strike the coast between Broome and Onslow, only occasionally the coast along the Dampier Land peninsula and further north.

Some of the most extreme weather conditions of Western Australia are encountered in the Kimberley. The highest rainfall of the state – over 140 centimetres – occurs on the Mitchell Plateau, on the Kimberley Block, while some of the lowest falls – less than 20 centimetres – are encountered in the Great Sandy Desert. Wyndham is the most consistently hot place on record in Western Australia, with a mean maximum temperature of 35.5°C throughout the year.

### **1.3 Recent history of the Kimberley region**

It is now generally accepted by prehistorians and archaeologists that human beings have been living on the Australian continent for at least 40,000 years; some put the date at 60,000 or more years (Flood 1999: 17–19), though there are disagreements about the methods used (Mulvaney and Kamminga 1999: 2). Early dates for occupation of the Kimberley have been found: Carpenters Gap in the Windjana Gorge National Park contains stone tools dating back 40,000 years;

Widgingarri and Koolan on the coast near Derby reveal dates of 28,000 years; and Miriwun on the Ord River (East Kimberley) is an 18,000 year-old occupation site (Flood 1999: 69, 73).

The Kimberley environment has not remained constant over the forty or more millennia during which it has been populated. During the final cold period of the last ice age, which lasted from about 25,000 to 15,000 years before the present, the region was generally more arid than now. Vast quantities of water were locked up in polar ice, and the sea level was considerably lower than today. At the height of the glacial period about 18,000 years ago the Kimberley coastline lay far out to sea from its present location, in places up to 200 kilometres. (At that time, mainland Australia, Tasmania, Papua New Guinea formed a single land mass, the Sahul super-continent.)

Little is known with certainty about the greater part of the history occupation, since Aborigines did not keep written records. Nor did their oral traditions document the past in a way that Western thought regards as history (Kolig 1996), although there are cases where oral traditions are in agreement with western historical records or prehistorical reconstructions. Australian history – as distinct from prehistory and ‘mythology’ – begins with the first visits of Europeans and their written records.

Although the Kimberley was one of the last regions of Australia to be colonised by Europeans, first contact happened quite early. One of the first Europeans known to have visited the region was the English privateer William Dampier who landed somewhere on the Dampier Land peninsula over three centuries ago, in 1688.<sup>1</sup> His comments about the people he encountered are frequently quoted, and need not be repeated here. Nevertheless, his journal inadvertently provides some insight into what the people he came into contact with, probably the Bardi, thought of him. Toby Metcalfe, a linguist who has worked on Bardi, observes that

[According to Dampier’s journal] the Aborigines ran from him crying out ‘Gurri! Gurri!’ Dampier, as with most Europeans, would have had trouble with his word-initial *ng*’s, and there is no doubt that the people were, in fact, calling out, ‘Ngaarri! Ngaarri!’ The *ngaarri* is probably the most feared and fickle of the malevolent spirit-brings [sic] – a creature who is forever seeking to kill and injure, and one who supposedly accounts for a good proportion of the misfortunes of the Bardi people. Dampier to them was believed to be the ‘miserablest’ and most ‘nasty’ of the bad spirits!

(Metcalfe 1979: 197)

During the next century, if not before, Macassan seafarers regularly visited the Kimberley coast – which they called Kaju Jawa – in search of trepang (bêche-de-mer), pearlshell, trocus shell, and fish (Crawford 1982: 29, 2001: 69–94; Mulvaney and Kamminga 1999: 411). They established temporary processing depots at various locations along the northern Kimberley coast, and probably utilised Aboriginal labour. There is evidence of at times violent conflicts with the

indigenous population. These visits were curtailed by government regulations in 1906.

Few Europeans visited the Kimberley region until the nineteenth century. During the four dry seasons between 1818 and 1822 Phillip Parker King surveyed and charted the northwest coastline of Australia, including the Kimberley coast. Disaster Bay on the east coast of Dampier Land was named by King as a reminder of a near disaster with the racing tides. In 1838 John Wickham undertook a further survey of the Kimberley coast, while George Grey explored the Northern Kimberley countryside inland from Hannover Bay. The next exploration into the Kimberley was in 1856 when Augustus C. Gregory took a party westwards from the Victoria River along the northern fringe of the desert to Sturt Creek, which they followed to Lake Gregory.

In most parts of the Kimberley significant contact between Aborigines and Europeans began in the late 1870s and early 1880s, largely due to Alexander Forrest's glowing report of the pastoral and mineral potential of the region following his 1879 expedition along the Fitzroy Valley. Pastoralists began arriving in the early to mid-1880s; just a few years previously, pearlers had begun to make significant contact with the coastal peoples between La Grange Bay and One Arm Point.

The first twenty or thirty years of white occupation was marked by violent conflict between the invaders and the original inhabitants. Both pastoral and pearling industries required a labour force to do the menial tasks, and force was frequently used to secure workers from the indigenous populations. Violence was also frequently employed to remove Aborigines from, and keep them away from, places where they were not wanted, including water sources, dwellings, buildings, stores, and so on.

But the violence of the early frontier was not entirely one way: a number of whites were killed or wounded by Aborigines (see the Gooniyandi text in §11.2.3), and many suffered from losses of stock as a result of spearing by Aborigines. This in turn usually provoked swift and brutal retaliation, and in some cases entire groups were exterminated. By the 1920s, the Kimberley region could be said to have been effectively colonised. Aborigines living in the Kimberley interior were by then working on cattle and sheep stations in ever increasing numbers. Nevertheless, cattle and sheep spearing continued until the early 1970s, and numerous attempts, successful and unsuccessful, were made on the lives of whites by Aborigines, and of Aborigines by whites. The main task of the police force in the Kimberley until about 1970 was to encourage (by force or otherwise) Aborigines to conform to white cultural norms, especially the work ethic (Bohemia and McGregor 1995).

Pastoralists and pearlers were not the only whites with interests in, and who had significant contact with, the indigenous population of the Kimberley region. Soon after first settlement, missionaries arrived and began establishing missions. The earliest were along the coast, in the late nineteenth century and early twentieth century. In 1890 the Catholic church established a mission at Beagle Bay on the Dampier Land peninsula; prior to this, in 1885 a mission had been established near Goodenough Bay on the eastern side of the peninsula by Fr Duncan McNab,

but it was short-lived. In 1908 another Catholic mission was established, at Pago Pago on the Drysdale River; it was shifted to Kalumburu in 1936. Protestant missions appeared soon after. Sydney Hadley, a reformed pearler, established an Anglican mission on Sunday Island in 1899. In 1912 a Presbyterian mission was established at Port George IV; it was soon moved to Kunmunya. The Anglican Church finally established a mission on the Forrest River in 1913, despite their earlier failure at the same site in 1897.

It was not until much later that missions were established in the Kimberley interior. Again the Catholic Church led the way, establishing a mission at Old Balgo in 1942, following an abortive attempt to establish a mission at Rockhole, near Halls Creek. The United Aborigines Mission established themselves at Fitzroy Crossing in 1951.

The main purpose of the missions was of course to convert Aborigines to Christianity. But most took their task as including the enculturation of Aborigines, and thus placed a high value on instilling the work ethic. Work was normally a prerequisite of payment (usually in the form of food and tobacco), although this was sometimes difficult to put into practice. Children were generally seen as the greatest hope. Not only were they provided basic education, but they were also segregated from their families from an early age, and brought up under the care of the missionaries in dormitories. This was considered as the most effective means of assimilation, and of keeping the children away from the bad influences of adults. Until the 1960s, even the most enlightened missions employed the dormitory system. Of course this had significant effects on the transmission of the culture and language, and is doubtless one of the factors responsible for the shift to speaking English in the mission communities. In some places missionaries even banned traditional ceremonies and destroyed sacred items. The impact of missions was certainly not only bad; missions also provided refuge to Aborigines, and some protection from unscrupulous whites.

Certain government instrumentalities also had important effects on the Aboriginal population of the Kimberley. Most notable were the Aborigines Protection Board and the police, whose duties included acting as 'protectors' of Aborigines! As a part of its policy of segregation and assimilation, the Aborigines Protection Board established Aboriginal reserves at various locations. In the East Kimberley the properties Moola Bulla and Violet Valley were purchased by the State government, and reserves were established on these properties in 1910 and 1911, respectively. In the West Kimberley, a reserve was established at Munja, on Walcott Inlet, in 1927.

White colonisation resulted in major population movements in the Kimberley. Missions and reserves were used as convenient settling grounds for Aborigines, who were frequently brought from far away – often by force – and resettled on them. From early in the twentieth century the Western Australian government had a policy of removing part-Aboriginal or 'half caste' children from their mothers, and relocating them in white institutions. Because the government provided financial assistance for each person supported, missions sometimes vied strongly for the custody of these children, now referred to as the stolen generation.

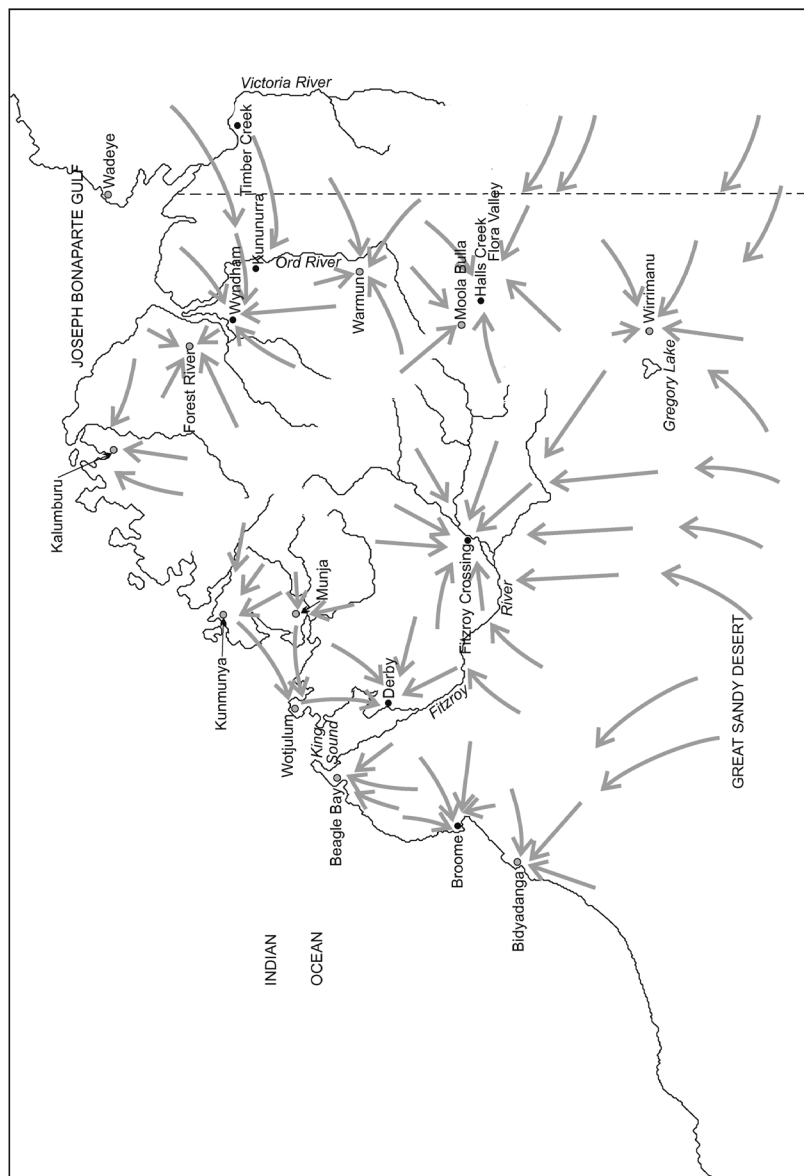


Not infrequently missions were relocated, taking with them their entire Aboriginal population. In 1949 the Kunmunya mission moved to Wotjulum, taking with it most of the coastal Worrora people, and absorbing the inhabitants of the nearby Munja reserve, which was then closed down. At the same time the coastal peoples from farther north moved into the Kalumburu mission area. The result of these moves was to leave 'a vast area of uninhabited country in the homeland of the Worora and its two allied tribes, with the three islets of habitation, namely the Missions at Wotjulum, Kalumburu and Forrest River' (Davidson 1978: 94). Seven years later, the Wotjulum mission was shifted to Old Mowanjam, on the outskirts of Derby.

Sometime in the late nineteenth or early twentieth century desert people from the Great Sandy Desert started moving northwards into the Kimberley region (Kolig 1981: 21). This movement continued into the 1960s and early 1970s, by which time the last of the desert people had moved out of their country. The reasons for this movement are not entirely certain, but it is likely to be in part related to the pastoral industry. In particular, the people living in the areas of intensive pastoral activity – especially the country along the rivers – sustained considerable population losses. Perhaps in part because of the depleted population in the more hospitable country, the desert people may have begun to move north. Doubtless other factors were relevant, including curiosity about the new world of white people – the new artefacts and easily obtained food and tobacco.

Killings, massacres, overwork and starvation on pastoral stations and pearling luggers, in addition to resettlement of people away from their traditional lands, often in close proximity to Aboriginal groups with whom they had few ties, all contributed to the destruction of Aboriginal societies in the Kimberley, and the decimation of the people. So also did introduced diseases, especially leprosy and venereal disease. Although the history of both of these diseases in the West Kimberley goes back to the late nineteenth century, leprosy did not reach epidemic proportions until the mid-1930s. And it remained as such for the next fifteen years until 1950, 'the last of the big years' (Davidson 1978: 95). From the late 1930s sufferers were taken in to the Derby leprosarium by police patrols; most remained there for the rest of their lives. A plaque at the leprosarium cemetery indicates that over three hundred Aboriginal lepers were buried there; doubtless many others died in their homelands, having avoided the police patrols (Bohemia and McGregor 1995), or escaped from the leprosarium. Many sufferers of this disease were Northern Kimberley people, Worrora, Ngarinyin, and Wunambal.

Until 1968, most Aborigines in the Kimberley lived in small communities on pastoral properties, missions or reserves; relatively few resided in the towns. With the phasing in of award wages to Aboriginal workers over the next couple of years, many workers were discharged, and they and their families forcibly removed from the pastoral properties and shifted into the towns, where they began to live as fringe-dwellers. Since the 1980s, this trend has reversed, and increasing numbers of Aboriginal people have returned to their former homes, where they have established, or are attempting to establish, independent communities.



Map 4 Major post-contact population movements in the Kimberley region to about 1970.





*Plate 1.6 Hazards of travel in the Kimberley in modern times (© Tamsin Wagner).*

## **1.4 History of research on Kimberley languages**

For expository purposes it is convenient to identify three main phases of research into Kimberley languages: (a) an *EARLY PHASE*, from the late nineteenth century until about 1929; (b) an *INTERMEDIATE PHASE* from about 1930 to 1959; and (c) a *MODERN PHASE*, extending from 1960 to the present. These phases were not, of course, completely distinct, and the work of some investigators spans more than one of them. We discuss them in the following subsections.

### ***1.4.1 The early phase***

This phase was dominated by the work of amateurs, who had little or no linguistic training. Prior to 1890, a handful of explorers, pastoralists, pearlers, and missionaries had recorded the odd word in some Aboriginal language, usually without specifying its identity or even location. Few words in the writings of these people are identifiable. An exception is the wordlists provided by James Martin,

in his 1865 report on expeditions to the west Kimberley coast in 1862 and 1863. He lists about seventy basic words in the language of the ‘sea-coast tribes’, and about twenty in the language of the ‘natives of the interior’. Most of the terms of both lists are identifiable as Nyulnyulan, probably Yawuru and Nyikina respectively. Martin was surprisingly perceptive: ‘the language of both sea-coast and inland tribes . . . is agglutinate, with Malay affinities few, obscure, and only partly recognised; the dialects prevail over exceedingly small areas, as is the case with eastern Keloënesian tribes’ (Martin 1865: 287).

The establishment of the mission at Beagle Bay by French Trappist monks in 1890 marked the first serious work on Kimberley languages. One of them, Fr. Alphonse Tachon, wrote a sketch grammar of Nyulnyul; this was the first and for decades best description of any Kimberley language. He also produced a quite extensive wordlist and translations of religious materials. Tachon’s work was subsequently used by Pallottine priests during the early 1900s, but not improved upon until the 1940s.

William Bird, a school teacher on Sunday Island, published a few short notes on Jawi grammar (Bird 1910), which were far inferior to Tachon’s unpublished sketch. It provided scant information, and even scantier analysis, often misguided. Aside from these two works, one finds no more than the odd remark about grammar.

The first-known audio recording of a Kimberley language was made in 1910, at Beagle Bay by Fr Bischofs. He made wax cylinder recordings of some thirty Nyulnyul songs and speech (half a dozen cylinders), amounting to approximately an hour in total. The following year the Swedish ethnomusicologist Yngve Laurel visited Sunday Island, and recorded songs and a short conversation in Jawi.

During this period a number of wordlists of disparate quality were compiled by people such as Daisy Bates (Jukun, Yawuru, Nyulnyul and Ngumbarl), William Bird (Jawi), C.J. Annear, postmaster and protector of Aborigines at Fitzroy Crossing (Gooniyandi); the ubiquitous amateur R.H. Mathews (Kija); N.H. Stretch, a pastoralist (Jarui); Ernest Rigby (Walgi – an unidentified language closely related to Kija); and the adventurer Michael Terry (Gurindji).

In 1927 and 1928, the anthropologist A.P. Elkin undertook his first field trip to the Kimberley. Although his primary interests were in kinship, genealogy and social organisation, he also gathered names of artefacts, flora, fauna, places, and verb forms in Nyulnyul, Bardi, and Ngarinyin. Elkin is noteworthy as the first person to transcribe indigenous texts in a Kimberley language, and one of the few investigators of the time with an interest in sociolinguistic and anthropological linguistic issues.

Given the meagre state of knowledge during this first period, it is remarkable that Fr Wilhelm Schmidt was able to produce a classification of Australian languages, including Kimberley languages, that is correct in broad outline. Schmidt (1919) distinguished between northern and southern languages, roughly parallel to the modern distinction between Pama-Nyungan and non-Pama-Nyungan languages. For the Kimberley region he distinguished three groups: a King Sound group, an Ord River group, and a Ruby Creek group. These correspond to what are now called the Nyulnyulan, Jarakan, and Pama-Nyungan families (§2.4).

### 1.4.2 *The intermediate phase*

This phase, embracing the mid-twentieth century, saw slackening off of amateur interest and an increase in professionalisation. Investigators were on the whole less linguistically naive, and attempted some basic grammatical analysis. In addition to half a dozen missionaries, there were also a couple of professional linguists and anthropologists working from universities. This period is probably best characterised as the period of surveys.

The Presbyterian missionary James R.B. Love began intensive work on Worrorra in the late 1920s, at Kunmunya mission. He as an astute and insightful observer, with a genuine interest in the people and concern for their welfare; his notebooks provide a wealth of information on the Worrorra language and culture. Love published various works on the language and its speakers, including grammatical sketches (Love 1931–2, 1938), the first published sketch grammars of any Kimberley language. His Master of Arts (MA) thesis is quite detailed, and has recently appeared in print (Love 1934, 2000). His book on the Worrorra people and the early history of Kunmunya mission (Love 1936) also contains interesting remarks on the language.

Another protestant missionary with an interest in Kimberley languages – and who was to make important contributions in the modern period – was Howard Coate. In 1934 he established a mission base near Mt Barnett, and very soon started to learn Ngarinyin. He began compiling a wordlist; then, with Love's assistance, began analysing the grammar. An 'itinerant' missionary without church funding, Coate worked on a number of occasions as guide and assistant to visiting anthropologists and linguists. In 1938 he was engaged as an assistant to the linguist Arthur Capell (see later). In 1944 or 1945, Coate took over as temporary superintendent of the Sunday Island Mission, during which time he worked on Bardi. Then in 1946–1947 he was employed by Professor A.P. Elkin to gather information on the northern Kimberley Wandjina cult; this permitted Coate to gather a large corpus of mythological texts in Worrorra, Ngarinyin and Wunambal, and compile a sizeable wordlist in the three languages. Most of the following decade saw Coate away from the Kimberley, though he continued his linguistic researches when opportunity arose – as a patrol officer in the Northern Territory, he compiled vocabularies and grammatical notes for Gupapuyngu and Warlpiri. He returned to the Kimberley in the early 1960s (see later).

Catholic missionaries also made important contributions. Most notable were the German Pallottine missionaries Frs Herman Nekes and Ernest Worms. Worms arrived in Australia in 1930, and worked as parish priest in Broome for the next eight years, during which time he investigated the local Yawuru people and their language. His onetime teacher, Fr Nekes followed five years later, thus beginning a collaboration that continued until Nekes' death in 1948. From his base in Beagle Bay, Fr Nekes gathered information on Nyulnyulan and far northwestern Pama-Nyungan languages. Fr Worms was more active as a fieldworker, and travelled extensively over the Kimberley region and elsewhere. His interests,

however, were more anthropological than linguistic though he did always gather information on the languages.

Frs Nekes and Worms published various articles on Kimberley languages and cultures, covering themes such as the pronominal systems, onomatopoeia, terms for new concepts, toponyms, mythological terms, and mythology. Their *magnum opus* Nekes and Worms (1953) is, despite its title, primarily about Dampier Land and neighbouring languages. It describes their grammatical structure, and gives extensive wordlists and sample texts in a number of languages.

During the 1930s, Fr T. Gil, superior of Pago Pago and later Kalumburu mission from 1926 to 1943, produced a wordlist and translations of religious materials in what he refers to as the Pela language, which is probably Gunin/Kwini (McGregor 1993: 13). Dom Theodore Hernández, stationed at Kalumburu in the 1940s, investigated aspects of social organisation and beliefs about procreation.

The first professional linguist to work in the Kimberley was Gerhardt Laves, a student of the famous American linguist Edward Sapir. He was brought to Australia in 1929 by A.R. Radcliffe-Brown under funding from the then Australian National Research Council. In 1930, Laves undertook fieldwork on Karajarri and Bardi, during which he recorded eleven wax cylinders of Karajarri speech and song at La Grange. Unfortunately, Laves published virtually nothing about his research into Australian languages, and wrote a single short description of Karajarri grammar (Laves 1931). His fieldnotes, however, are highly regarded for their accuracy and detail, and have been used by linguists in recent years.

Arthur Capell – widely regarded as father of Australian linguistics – undertook an extensive trip through northern Australia in 1938–1939. Beginning in Broome, he travelled through the Kimberley and thence Northern Territory, recording information on many languages, including Ngarinyin, Wunambal, Worrorra, Nyulnyul, Bardi, Yawuru, Nyikina, Warrwa, Bunuba, Gooniyandi, Kija, Miriwoong, Jaminjung, Ngaliwurru, Nyangumarta, Karajarri, Mangala, and Walmajarri. In 1940, Capell published the results of his investigations and proposed a classification according to typological characteristics (Capell 1940). He later published grammatical sketches of Wunambal (Capell 1941) and Nyikina (Capell 1952/1953). His 1956 book *A new approach to Australian linguistics* heralded the third phase of Kimberley language study – and indeed of modern Australian linguistics (Capell 1956/1966).

### 1.4.3 The modern phase

Both missionaries and professional linguists have played an important role in the modern phase (since 1960), which might be described as professionalised and descriptive in orientation. It is in this phase that the first detailed grammars appeared, and investigators employed modern linguistic methods and approaches.

Fr Kevin McKelson, who had arrived in the Kimberley in the early 1950s, was stationed for many years at La Grange mission where he began learning the local languages, Karajarri, Mangala, Nyangumarta, and Yulparija. Beginning in the

1960s, he produced useful studies of the four languages, as well as language learning materials, literacy materials, and translations of religious liturgy.

Howard Coate's return to the Kimberley in the early 1960s marked the beginning of a new phase in his linguistic investigations. He renewed his collaboration with Elkin and Capell, and continued gathering information on Ngarinyin, and in the mid-1960s, other languages, including Bardi, Gooniyandi, Bunuba, Unggumi, Yawijibaya, Winyjarrumi, Umiida, and Unggarrangu. The data he gathered on the last four of these languages, restricted though it was, represents virtually everything known about them. Working with Elkin, Coate compiled a dictionary of Ngarinyin (Coate and Elkin 1974), the first good dictionary of any Kimberley language, and wrote a grammar (Coate and Oates 1970), with assistance from Lynette Oates; this was the first published grammar of a Kimberley non-Pama-Nyungan language. Coate also translated parts of the New Testament into Ngarinyin.

In the late 1960s, linguists working under the auspices of the Summer Institute of Linguistics (SIL) – a worldwide missionary organisation whose major goal is the translation of the Bible in a linguistically informed way – began to make an appearance in the Kimberley. Joyce Hudson and Eirlys Richards went to Fitzroy Crossing, and worked on Walmajarri; Joy and Peter Taylor went to Halls Creek and worked on Kija. Hudson and Richards produced descriptions of Walmajarri grammar (Hudson 1978), wordlists, learning materials, literacy materials, Bible translations, and so forth. The Taylors also wrote descriptions of aspects of Kija grammar, literacy materials, and translations of portions of the Bible, though little is published.



*Plate 1.7* Howard Coate and William McGregor in conversation in front of the former's hut, 1996 (© Kevin Shaw).

The most innovative and exciting research carried out by a missionary in the modern period was that of Fr Anthony Peile, stationed at Wirrimanu (Balgo) from 1973 until his untimely death in 1989. Peile's main talents were not in descriptive linguistics, but in Kukatja ethno-science, in the Kukatja conceptualisation of the world. He believed that language was central to this, and that it was impossible to understand the Kukatja views without an understanding of their language, and how it is used to speak about phenomena of the world. His two most significant publications, deal with the Kukatja understanding of plants (Peile 1996), and the human body and soul (Peile 1997). (See §9.6 for further details.)

The story of modern academic research into Kimberley languages begins with Geoffrey O'Grady, who, in the 1950s, began working on Nyangumarta. In 1963, he completed his doctoral thesis (Indiana University), a grammar of the language; this was subsequently published as O'Grady (1964). Two years later, in collaboration with C.F. Voegelin and F.M. Voegelin, O'Grady published a large-scale classification of Australian languages, O'Grady *et al.* (1966).

Also in the 1960s, William Hoddinott of the University of New England began work on languages of the Daly River and Victoria River regions, on the margins of the Kimberley. His students John Cleverly and Janet Bolt undertook fieldwork in the Victoria River region in the mid-1960s. Cleverly wrote an MA thesis on Jaminjung (Cleverly 1968); and later Hoddinott and Frances Kofod worked Bolt's fieldnotes into grammars of Ngaliwurru (Bolt *et al.* 1971a) and Nungali (Bolt *et al.* 1971b).

Since the 1960s, a steadily growing number of professional linguists and post-graduate students have carried out fieldwork on Kimberley languages, and many have produced descriptive grammars – mostly of a high standard – and articles on various linguistic topics.

The 1970s saw a significant increase in the number of academically trained field linguists working in the Kimberley. Most began as doctoral students, and many are still active. Michael Silverstein, Alan Rumsey, and Eric Vászolyi (later Vasse) worked on Worrorran languages; Toby Metcalfe and Bronwyn Stokes on Nyulnyulan languages; Frances Kofod on Jarakan languages; and Tsunoda Tasaku and Patrick McConvell on Pama-Nyungan languages.<sup>2</sup> Five higher degree theses resulted. Three of the four doctoral (PhD) theses were detailed grammars: Rumsey (1978) (published 1982) of Ngarinyin; Tsunoda (1978) (published 1981) of Jaru; and Stokes (1982) of Nyikina. The MA thesis, Kofod (1978), was a descriptive grammar of Miriwoong. The other PhD thesis, Metcalfe (1972) (published in 1975), focussed on Bardi verb morphology, and was the first attempt to apply a modern linguistic theory to the description of a Kimberley language.

The 1980s saw the arrival of only two new academic linguists: myself in 1980 (Gooniyandi), and Komei Hosokawa in 1986 (Yawuru). Both wrote detailed modern grammars of the languages as PhD theses, McGregor in 1984 (published 1990), Hosokawa in 1991 (to be published by Pacific Linguistics).

In 1984, Joyce Hudson and Patrick McConvell undertook a pilot study of the language situation and needs in the Kimberley, the results and recommendations





*Plate 1.8* Fieldwork on Gooniyandi at Jiljiyardie, 1980. Left to right: Joe Dimeye, Jack Bohemia, William McGregor (© Alan Rumsey).

of which are reported in Hudson and McConvell (1984). As a consequence, the Kimberley Language Resource Centre (KLRC) was established, the first Aboriginal-run language centre in the country. The KLRC began operations in Broome, but shifted after a year to Halls Creek; an annex was established a few years later in Fitzroy Crossing. In the late 1980s, a second language centre, Mirima Dawang Woollab-gerring Language and Culture Centre (MDWG), was established in Kununurra to serve local interests.

Establishment of language centres brought changes to fieldwork. No longer can new fieldworkers simply arrive at communities and begin work on a language. Rather, the language centres act as buffers between linguists and communities, and prospective researchers should make initial contact via the centres. Since the late 1980s, a number of budding linguists began as workers for the KLRC. Three have since completed higher degrees: Therese Carr, an MA on Wunambal (2000); Mark Clendon, a PhD on Worrorra (2001); and Barbara Jones, a PhD on Wangkajunga (2003). Emily Knight is currently (2004) completing an MA on Bunuba. Janet Sharp finished a PhD on Nyangumarta grammar in 1998.

A significant development of the 1990s has been a return to detailed studies of particular grammatical topics, that began with Metcalfe's study of Bardi verbs. Verbs have again been the major focus of interest, with three PhD theses devoted to them, Nicolas (1998) (Bardi and Bunuba), Schultze-Berndt (2000) (Jaminjung), and Claire Bown (2004) (Bardi).

Another important development of the 1990s was the appearance of dictionaries for speakers of the languages and their children: Walmajarri (Richards and Hudson 1990), Kukatja (Valiquette 1993), Bardi (Aklif 1999), and Worrorra



*Plate 1.9* Kimberley Language Resource Centre building in Halls Creek (© KLRC).

(Clendon *et al.* 2000). A number of others are in preparation under the auspices of the KLRC, including dictionaries of Gooniyandi, Nyikina, and Bunuba.

The 1980s also saw the beginning of interest in, and acceptance of, the non-traditional languages spoken by Aborigines in the region. Kriol (see §2.4.7 and §3.4.2) became for the first time considered worthy of investigation by linguists, and SIL linguists played a major role in its documentation (e.g. Hudson 1983). The attitudes of educators also began to change for the better; Kriol has begun to be accepted as a real language, the first language of the majority of Aboriginal school children, and some literacy materials have been produced.

The post-1960 period has been not just one of increased descriptive sophistication. It has also been a time of increased social consciousness of both linguists and Kimberley Aborigines. It is now expected that linguists will return results of their research to communities in a suitable form, and provide advice or assistance in such matters as orthography development, teaching literacy or linguistics, production of literacy materials, and so on. Linguists are also employed by community schools, adult education centres, language centres, and Catholic Education.

### **1.5 Spelling and pronunciation**

Traditionally, Australian Aborigines did not write their languages. True, they did employ various forms of visual communication such as bodily designs, markings on message sticks, and painting. But none of these are true systems of writing: the spoken language is not represented in a consistent way. There is no direct



correspondence between the visual symbols and words of the language: the visual marks symbolise meanings directly.

Today, however, many languages, particularly the widely spoken ones, do have writing systems. Indeed, some have had a writing system for many years. J.R.B. Love developed a writing system for Worrorra in the 1920s and 1930s, and used it in his Bible translations. The numbers who learnt it were not large, and the skill appears not have been passed on to the younger generations, who learnt literacy skills in English exclusively. Until the 1970s, most writing systems were developed exclusively for linguists, anthropologists and missionaries. It is only in the last twenty or thirty years that Kimberley languages have acquired writing systems for use by speakers. As might be expected, no languages have large bodies of literature, or large numbers of literate speakers. The best established writing systems are for Walmajarri and Kukatja; these have been taught both to adults in adult education classes and to children in non-government schools such as Noonkanbah school (Walmajarri) and Luurnpa Catholic School in Wirrimanu (Kukatja).

In most cases the writing systems – or ORTHOGRAPHIES – are still under development or are being trialled, and spelling has not yet become standardised. Since the mid-1980s the KLRC has played an important role in the development of orthographies. Many recommendations have been made over this period, beginning with Hudson and McConvell (1984), and numerous workshops have been held with speakers of various languages, often with the assistance of linguists. The Centre has recently published a guide to the orthographies in use, or recommended for use, in Kimberley languages, with basic information on the systems for some twenty-eight languages (Kimberley Language Resource Centre 1999). The important point about these recent developments is that, as Patsy Bedford says in her Foreword,

Linguists were the first to write our languages down using letters from English, but the English alphabet doesn't belong to Aboriginal people. For many years now many Aboriginal people have longed to write their own languages. Our languages are very different to each other and to English so it is hard to decide which letters to use for writing them. The Kimberley Language Resource Centre has a policy that the Aboriginal people who own the languages should take a part in deciding on the orthography for their language. Many of the languages have had their elders, speakers and community members involved in deciding on their orthography.

(Kimberley Language Resource Centre 1999: iii)

Significantly, the decision processes have often extended over lengthy periods of time, during which it has been possible to give them a fair trial. For instance, Gooniyandi speakers decided in 1984 on a spelling system (Street and Chestnut 1984). As a result of problems encountered in using it, modifications were proposed and accepted by Gooniyandi speakers at a meeting sponsored by the Kimberley Language Resource Centre in 1990 (Carr 1991). A writing workshop held at Yiyili Community in 1999 recommended a further change.

There are several reasons why different orthographies have come into use for different languages.

First, orthographies have been traditionally decided on by linguists, and speakers of the language have had little or no say in the decision-making process. Preferences of the linguist for certain letters to represent particular sounds often shows up in the orthography they recommend. Linguists have often opted for systems reflecting their own language background (usually English) and linguistic training, rather than systems that may be most convenient for speakers. With increasing involvement of speakers in the decision-making processes, choices have been made that are sometimes surprising to linguists. An example is the decision by Gooniyandi speakers in 1984 to use the letter *d* to represent both the sound *d* as in *dog* and the rolled *r*-sound (as heard in Scottish English), sounds which are quite distinct in the language. This decision has since been revoked, and now the standard *rr* is used for the latter sound.

Second, early orthographies used linguistic symbols (such as *ŋ*) and complicated diacritics (as in *ñ, ċ, ř, Ț*, etc.). These are difficult to produce on typewriters – and a nuisance to type on standard computer keyboards – and in recent years emphasis has been placed on practical orthographies that lend themselves better to typewriters and computers.

Third, and perhaps most significant, are political considerations. As Patsy Bedford says (Kimberley Language Resource Centre 1999), ‘In the Kimberley region there are many Aboriginal languages still used. For the people who own these languages, each one has its own separate identity and this can be seen by the different writing systems that are in use’. Such considerations seem to have been partly why Bunuba people choose *u* for the sound like *u* of *put* in English, thus maintaining an obvious difference from the nearby and closely related language Gooniyandi, which uses *oo* for this sound. The Gooniyandi decision to use *oo* was to facilitate transference of literacy skills from English.

Kimberley orthographies can be divided into two main types: north Kimberley orthographies and the south Kimberley orthography. North Kimberley orthographies are used by (or recommended for) most non-Pama-Nyungan languages traditionally spoken in the Kimberley proper; the south Kimberley system is used mainly by Pama-Nyungan languages from the bordering regions (see Map 3). Two major exceptions are non-Pama-Nyungan Kija, which uses a variant of the south Kimberley orthography, and Pama-Nyungan Jaru, which uses a north Kimberley orthography.

The following is a fairly complete list of symbols that are currently used in the various systems, together with indication of which systems they are used in, and brief explanation of their sound value (see Ch. 4 for further discussion). No language uses all of these letters.

- a** as in *father*, but shorter; sometimes is sounds more like the *u* of *but*, or the *a* of *sat*. It is never pronounced as the *a* of *mate*.
- aa** like the sound written *ar* in *car* in Australian English; this is a long version of the sound written as *a*.

- b** similar to the *p* of *pin* or the *b* of *bin*, but more like the *p* of *spin*. In some languages the *p* pronunciation is more frequent; in others it is the *b*. Used in most north Kimberley orthographies; the south Kimberley orthography uses *p* for the same sound.
- d** similar to the *t* of *tin* or the *d* of *din*. In some languages the *t* sound is most frequent; in others, the *d* is. Used in most north Kimberley orthographies; the south Kimberley orthography uses *t* instead.
- d** used in Bunuba only for the sound written *rd* or *rt* in other languages. The closest sound in English is *rd* and *rt* in some American pronunciations of *card* and *cart*, though the tip of the tongue is turned back further.
- e** as in *pet* in Worrorran languages other than Worrorra itself where it sounds like the *e* of *men* and the *ai* of *air*; in Jarrakan languages the same letter is used for something closer to *e* of *mechanic*.
- ee** like *ee* of *feet* in Worrorra, and *ai* of *air* in Wunambal.
- g** similar to the *k* of *king*, or the *g* of *girl*; it is never pronounced as the *g* of *gentle* or *gem*. Used in some north Kimberley orthographies; the south Kimberley orthography uses *k* instead.
- i** as in *bin*, and sometimes like the *ea* of *bean*, only shorter. It is never pronounced like the *i* in *side*.
- I** used in Wunambal for a sound similar to that of *i* in a New Zealander's pronunciation of *fish and chips*.
- ii** like the *ee* of *seen*.
- iyi** like the *ee* of *seen* in a few orthographies, where it is used instead of *ii*.
- j** similar to the *j* sound of *jam*, or the *ch* sound of *chill*.
- k** similar to the *k* of *king*, or the *g* of *girl*. The south Kimberley orthography and some north Kimberley orthographies use *k* for this sound, others use *g*; a few use both, usually *k* after *n*, *g* elsewhere.
- l** like the *l* of English.
- l** used in Bunuba for the sound written *rl* in other languages. The closest sound in English is *rl* in some American English pronunciations of *Carl*, though the tip of the tongue is turned back further.
- lh** English has no close approximation for this sound, which occurs in only two or three languages; see §4.2.2 for a technical description.
- ly** rather similar to the *lli* of *million*, it is even closer to the *ll* sound of Castilian Spanish *llave* 'key'.
- m** as in English *man*.
- n** like the *n* of English.
- n** used in Bunuba for the sound written *rn* in other languages. This sound is similar to *rn* in some American English pronunciations of *barn*, though the tip of the tongue is turned back further.
- ng** like the *ng* of *sing*, but not like the *ng* of *finger*. This sound often begins words in Kimberley languages, giving rise to one of the main difficulties experienced by English speakers learning to speak Aboriginal languages, who find it very difficult to pronounce the sound at the beginning of words.

- ng** used in Bunuba to represent the sound written as *ng* in other orthographies.
- nh** there is no English sound close to this one (see §4.2.1.1 for a description), and it is very difficult for the English speaker to distinguish it from *n*. Like *lh*, *nh* occurs in just a few languages.
- ny** similar to the *ny* of *canyon* and the *ni* of *onion*.
- o** as in *pot* or *or* in *port*.
- oo** some languages (e.g. Gooniyandi, Bardi, and Miriwoong) use these letters for the *u* sound of *put*, which is written *u* in other languages; in Worrorra, it is like the longer *oo* of *food*; sometimes both short and long versions of this sound are also represented by the same letters (e.g. Bardi).
- oowoo** long version of *oo*, like the *oo* of *food* and *pool*, but slightly longer.
- p** similar to the *p* of *pin* or the *b* of *bin*, but more like the *p* of *spin*. This letter is used in the south Kimberley orthography, and in Kija; most north Kimberley orthographies use *b* for this sound.
- r** normally pronounced like the *r* of *run* in most dialects of English, even at the end of a word (as in the typical American pronunciation of *car*).
- rd** there is no very similar sound in English; closest to the *rd* and *rt* sounds of *card* and *cart* in some American English dialects, though the tip of the tongue is turned back further. Used in most north Kimberley orthographies.
- rl** there is no closely similar sound in English. This sounds most like an American English pronunciation of the *rl* of *Carl*, though the tip of the tongue is bent back further in the mouth.
- rn** as for *rl*, there is no close approximation to this sound in English. It sounds like *rn* in American English pronunciation of *barn*, but the tip of the tongue is bent back further in the mouth.
- rr** this sounds like the *tt* of *butter* when spoken quickly; it is sometimes ‘rolled’, like the *r* sound in Scottish English. It is never pronounced like the *r* of *run*.
- rt** there is no closely similar sound in English. *rt* sounds like a *t* or a *d*, but is pronounced with the tongue tip curled back slightly; it sounds like the *rd* and *rt* sounds of *card* and *cart* in some American English dialects. This symbol is used in the south Kimberley and Kija orthographies; north Kimberley orthographies usually use *rd* for this sound.
- t** similar to the *t* of *tin* or the *d* of *din*. In some languages the *t* sound is the more frequent; in others, the *d* predominates. This letter is used in the south Kimberley and Kija orthographies; north Kimberley orthographies usually use *d* instead.
- th** this sounds like an ordinary *t* or *d* to speakers of English, but it is pronounced more like the *th* of *thing*.

- tj** this is used in Kukatja for the sound written as *j* in other orthographies; it sounds like the *j* of English *jam*.
- u** like the *u* of *put*, never like the *u* of *but* or *muddle*.
- uu** similar to the *oo* of *pool*, only slightly longer.
- uwu** similar to the *oo* of *pool*, only slightly longer.
- w** usually pronounced like the *w* of *wide*; sometimes, however, *w* cannot be heard when the following sound is a *u*.
- y** usually pronounced like the *y* of *yes*; sometimes it is not heard before *i*, as in the name *Yiyili*, often pronounced as though it began with *i*.
- yh** English has no sound remotely like this one; see §4.2 for a technical description. *yh* occurs in only one or two languages.

In this book we try as far as possible (given the ongoing processes of development) to spell words according to the orthography used by, or recommended for use by speakers of the language. Where such a system does not exist, we employ some variant of the north Kimberley orthography, or the plain south Kimberley orthography as appropriate. Admittedly, this may cause some confusion for the general reader, for whom it might have been more convenient to employ a single standard system for all of the languages. However, the burden should not be too great, if it is recalled that each system is some variant of either the north or the south Kimberley orthographies. Furthermore, the differences between these two systems are not enormous, and mainly hinge on use of *b*, *d*, *g* in most north Kimberley orthographies as against *p*, *t*, *k* in the south Kimberley orthography, and the absence of *th* and *nh* in the south Kimberley orthography.

### Further reading

McGonigal (1990), McGregor and Chester (1999), and Edwards (1991) are useful general works on the Kimberley region; Tyler (1996) is a good non-technical description of the geology, and Kenneally *et al.* (1996) on the plant life of Dampier Land. Moon and Moon (2002) is an excellent guidebook to the Kimberley. The Lonely Planet guide to Aboriginal Australia, Singh *et al.* (2001), provides much useful information on Aboriginal people, groups, and organisations in Australia, though unfortunately the information on Kimberley languages is unreliable and fragmentary. Horton (1994) is an essential reference on Aboriginal topics.

A good general text on Australian prehistory is Mulvaney and Kamminga (1999); less technical is Flood (1999), which has a full chapter (ch. 7) on Kimberley prehistory. A number of books treat on the history of relations between Aborigines and whites in the Kimberley, including Biskup (1973), Davidson (1978), Kolig (1981), and Yu and Hudson (1988); McGrath (1987) and Berndt and Berndt (1987) are good accounts of the role of Aborigines in the cattle industry in northern Australia. See also suggested readings at the end of Ch. 11 for Aboriginal accounts. On the history of Kimberley missions and missionary work, see Durack (1969/1985), Zucker (1994), and Choo (1997).

The history of research into Australian languages is under-researched. Capell (1971) is the most comprehensive account, though it is now quite dated; short accounts can also be found in general works on Aboriginal languages such as Wurm (1971: 13–29) and Dixon (1980: 8–17, 20–1). On community control of linguistic research see Wilkins (1992).

## SURVEY OF KIMBERLEY LANGUAGES

### 2.1 Language, dialect, and ‘tribe’

How many Aboriginal languages are there or were there in the Kimberley region? The answer to this depends on what is meant by the term ‘language’.<sup>1</sup> Linguists usually invoke the criterion of mutual intelligibility: varieties of speech that are sufficiently alike that speakers of one can immediately understand speakers of another belong to a single LANGUAGE. For example, speakers of Australian English can understand speakers of American English (and vice versa), and so these belong to the same language: they are DIALECTS of a single language. Distinct languages are recognised when forms of speech are not mutually intelligible, when it is not possible for a speaker of one to understand a speaker of another without learning their form of speech. Monolingual speakers of Danish and English cannot understand one another, and therefore Danish and English are distinct languages.

Turning to the Kimberley, speakers of Big Nyikina and Small Nyikina can speak to one another in their own variety of speech, and be understood perfectly well. Big Nyikina and Small Nyikina are therefore dialects of one language, Nyikina. In terms of this definition, at least thirty distinct languages were spoken in the greater Kimberley region before the advent of whites.

This criterion, however, is not without difficulties. Australians know very well that there are dialects of English (e.g. Yorkshire and Glaswegian English) that are not mutually intelligible with Australian English: it is usually impossible for speakers of Australian English to understand speakers of these dialects without a good deal of exposure to them. To deal with this situation the criterion of mutual intelligibility can be adjusted slightly: instead of requiring mutual intelligibility among all varieties it is sufficient that all varieties must be linked by a chain of varieties with mutual intelligibility between each linked pair.

Another problem with the requirement of mutual intelligibility is putting it to practice and determining whether two varieties really are mutually intelligible. Aboriginal people generally understand and speak what appear to be very different varieties, that we would expect to be mutually unintelligible. But if everyone who can speak one variety can also speak the other it would be impossible to tell in practice whether or not they are mutually intelligible.<sup>2</sup> The reality is that mutual

intelligibility is not an all or nothing thing, and is not an easy criterion to apply empirically.

Westerners generally think of language in rather different terms. They – including linguists also, when they are at home – commonly think of languages as being associated with political units, generally nations;<sup>3</sup> in this sense language is a marker of group identity and solidarity. Danish, Swedish, and Norwegian are distinct languages according to this political criterion, although in terms of the weakened criterion of mutual intelligibility they are dialects of a single language.

Australians of European descent tend to consider the political unit linked to language in Aboriginal Australia to be the ‘tribe’, conceived of as a group of people living within a bounded territory, sharing customs unique to them, and marrying among themselves. Aside from problems with the notion of ‘tribe’ – anthropologists have criticised it on various counts – the relation between a ‘tribe’ and the speakers of a language is at best complex and indirect. The speakers of a language typically include many people belonging to different ‘tribes’, and most members of a ‘tribe’ generally spoke more than one language.<sup>4</sup> Thus the political definition of language also runs into problems: languages are not associated with ‘tribes’ via speakership as in the case of nation-states elsewhere in the world.

Aboriginal people themselves, it seems, have a different conceptualisation of languages to westerners. According to a widespread Aboriginal belief, languages are directly linked to particular tracts of country. They are the property of certain areas as the result of having been implanted there in the Dreamtime, a long-ago era during which the world came to be as it is as the result of the activities of Dreamtime beings. The manner in which this is believed to have happened differs from place to place, but the belief is often validated by mythology. Gooniyandi people have told me of how a Dreamtime being travelled into their country from the west, ‘putting down’ Nyikina in its territory along the lower reaches of the Fitzroy River, then Gooniyandi further upstream. And according to Alan Rumsey,

Ngarinyin people have told me of how their language originated at a place called Gulemen, ‘Beverley Springs’, where it was first spoken in the Dreamtime by Possum. From there he carried it all over present-day Ngarinyin country, and that is why the language is there today.

(Rumsey 1993: 202)

The link between people and language in the general Aboriginal conception is thus indirect, mediated by the country. It is the traditional owners of tracts of land who are responsible for the maintenance of that country; being also owners of the language, they are responsible for that too. It is not the speakers of a language who own it, and can speak for it, but the traditional owners of the country of the language. And they need not, these days at least, even be speakers of the language.

The languages that were placed on the land in the Dreamtime were almost always given names by the responsible beings. It is normal and sensible practice for a linguist to begin by accepting these names as identifiers of separate languages.



At the start of fieldwork a linguist can only do this; the question of mutual intelligibility can only be raised later. Named varieties of speech would normally be tentatively identified as distinct languages, except when explicitly informed to the contrary. This assumption must of course be subsequently questioned, and renewed attempts made to determine the referents of the names – and what type of linguistic entity they designate – by talking to owners and speakers. The answer is sometimes – though not always (see next section for mention of some difficulties) – quite clear. For instance, owners of the Nangu, Nawurtu, and Najanaja varieties regard them as types of Karajarri, and use both the general and more specific terms in reference to their language. These varieties are thus dialects of Karajarri. By contrast, Nyulnyul and Jabirrjabirr are probably about as similar as these dialects of Karajarri, but the owners of one do not recognise themselves as owners of the other, and the two were associated with different (though partly overlapping) territories in traditional times.

Adopting this notion of a language, some fifty-five traditional Aboriginal languages were spoken in, and belong to, the extended Kimberley region – somewhat more than identified by the criterion of mutual intelligibility (see earlier text). Their approximate traditional locations are shown in Map 3.

Regardless of the notion of language one adopts, the Kimberley emerges as a region of considerable linguistic (and cultural) diversity. In fact, it is one of the most linguistically and culturally diverse regions of Australia, with seven different language families being represented. By contrast, the languages of the remainder of the continent (excluding the northern part of the Northern Territory) belong to a single family (see §2.3).

## 2.2 Names of languages and ‘tribes’

The names of languages and the political units (‘tribes’) they are associated with via ownership of the territory of the language are usually the same, or very similar, in the Kimberley region. However, anyone who reads the literature on Kimberley languages and peoples will find a plethora of names for languages and ‘tribes’. This can be very puzzling and confusing. What, one might wonder, is the difference between Ngarinyin and Ungarinyin, or between Gunian, Gooniyandi, and Gunan?

In some cases the differences amount to no more than variant spellings, and can be put down either to mishearings or to different spelling conventions. In other cases the differences are clearly more than alternative spellings. Sometimes owners of a language use one term to refer to themselves, while their neighbours use another term. The Murrinh-patha language and people of Wadeye (Port Keats), for example, are referred to as Garama by their Jaminjung neighbours; thus some anthropologists and linguists who obtained their information from the Jaminjung people have referred to the language as Garama. In other cases linguists and anthropologists have been given terms like *warinjarri* which means ‘eastern region’, *warrmarla* meaning ‘desert people’, *balanggarra* ‘many people’, and



*goolarrabooloo* ‘westerner’ instead of the genuine language or group name. (This is similar to the way that Australians sometimes refer to the English or French as Europeans, Westerners, etc.)

There are other sources of confusion. In a few cases the names of the language and the political unit are slightly different. Thus Ungarinyin is the name of a language, whereas Ngarinyin is the name of the people (a ‘tribe’) who are the traditional owners of the country of the language.<sup>5</sup> Even so, Ngarinyin has been chosen as the preferred language name. Another source of confusion may be that owners of a language do not have a single term for themselves or their language that distinguishes them or it from others, but rather use a variety of terms depending on context, specifically on the affiliation they wish to indicate on the specific occasion. This was the case in the Western Desert region, including the northernmost parts, adjacent to the Kimberley, and in the Forrester River region.<sup>6</sup>

Table 2.1 provides a list of all Aboriginal languages spoken in the Kimberley region traditionally and today. The traditional languages included are those whose place was in the region generally referred to as the Kimberley – which in common parlance includes the area around Broome and Dampier Land – and regions to the south and east as shown in Maps 2 and 3. Post-contact population movements have brought people from these neighbouring regions into the Kimberley itself, in some cases leaving the traditional countries depopulated (see §1.3). Excluded from the list are languages spoken by isolated individuals who moved into the region alone, as the sole representative of their language.

The names are given in alphabetical order according to the preferred spellings, which are given in the first column. Preferred spellings are based on four main considerations, and are (with one or two exceptions) in accordance with the recommendations of the KLRC. (1) Where a spelling is in use in a literacy programme

*Table 2.1* List of Aboriginal languages of the Kimberley

<i>Recommended spelling</i>	<i>Main alternative spellings</i>
Aboriginal English	Black English, non-standard English
Andajin	
Bardi	Baadi, Ba:di, Bard
Broome Pearling Lugger Pidgin	Broome Kriol, Japanese Pidgin English, Malay talk
Bunuba	Bunaba, Bunapa, Punapa
Doolboong	Tulpung, Duulngari
Gajirrabeng	Gajirrawoong, Gadjerawang, Gadjerong, Gadyerong
Gambera	Gamberre, Gambere, Gambre
Gooniyandi	Gunian, Guniyan, Konean, Kuniyanti
Gulunggulu	
Gunin/Kwini	Gunan, Gwini, Kunan
Gurindji	Kuurrinyji
Guwij	Guidj, Guwidj
Jabirrjabirr	Djaberdjaber, Djaber-Djaber

*(Table 2.1 continued)*

Table 2.1 Continued

<i>Recommended spelling</i>	<i>Main alternative spellings</i>
Jaminjung	Djamindjung
Jaru	Djaru, Tjaru
Jawi	Chowie, Djau, Djawi, Dyawi
Jukun	Djugan, Djugun, Djukan, Jookoon
Juwaliny	Tjiwarliñ, Tjiwarliny
Karajarri	Garadjari, Garadjeri, Garadyari
Kija	Gidja, Kitja, Lunga, Lungga
Kriol	Creole, Pidgin English
Kukatja	Gogodja, Gugadja, Gugudja, Kukaja
Kuluwarrang	Guluwarin, Kuluwarin
Malngin	
Mangala	Mangarla, Maṇala
Miriwoong	Miriung, Mariung, Miriwun, Mirriwung, Mirrwu
Miwa	Bagu, Miwi, Pela
Munumburru	Munumburu
Murrinh-patha	Garama, Murinbada, Murinbata, Murinjbada
Ngardi	Ngadi, Narti, Ngati
Ngarinyin	Ngarinjin, Ungarinjin, Ungarinyin
Ngarinyman	Ngarinman, Ngariningman
Ngarnawu	Nganaw
Ngumbarl	Ngoombarl, Ngormbal, Ngumbal, Ngumbarl
Nimanburru	Nimanboorroo, Nimanboro, Nimanburu, Ninamburu
Nyangumarta	Njangamarda, Njangumarda, Nyanṁumada
Nyikina	Njigina, Nyigena, Nyigina
Nyinyin	Njining, Njininj, Nyinin
Nyulnyul	Njul-Njul, Nyol-Nyol, Nyoolnyool, Nyul Nyul
Pidgin English	Pidgin
Pintupi	Bindubi
Umiida	Umida, Umi:da
Unggarrangu	Unggarangi
Unggumi	Ungkami, Wunggumi
Walmajarri	Walmadjari, Walmadjeri, Walmatjari, Walmatjiri, Walmayari
Wangkajunga	Wangkatjungka, Wonggadjunggu
Wanyjirra	Wandjira, Wandjirra, Wanjira
Warlpiri	Wailbri, Walbiri, Waljbiri
Warwa	Warwa, Warwar
Wilawila	Wila-Wila
Winyarrumi	Windjarumi
Wolyamidi	Woldjamidi, Wol'jamidi, Wolyamidi
Worrorra	Worora, Worrorra, Wurora
Wunambal	Unambal, Wunambul
Wurla	Worla, Ola, Walajangarri, Worlaja, Wula
Yawijibaya	Jawdjibara, Yaudjibara, Yawjibarra
Yawuru	Jauor, Yaoro, Yawooroo
Yiiji	Jeidji, Yeidji
Yulparija	Julbaridja, Julbre, Yulbaridya, Yurlparija

in the language, that spelling is accepted. (2) A spelling is adopted where the community of speakers, or its representatives, accepts or uses it in preference to other spellings. (3) If neither (1) nor (2) apply, then the spelling is in accordance with the orthography recommended for the language. (4) The recommended spelling is sometimes the one most frequently found in the literature. Throughout this book we use these recommended spellings.<sup>7</sup> In the second column of Table 2.1 are given the main alternative spellings or language names that the reader is likely to find in the literature. Other spellings and names have been used, the interested reader should consult McGregor (1988a) for a fullish list of alternatives for each language.

### **2.3 Relationships among the languages of Australia**

Given the large number of languages spoken in the Kimberley region, the reader may wonder how similar they might be to one another and to other indigenous languages of the Australian continent. It is possible to speak of similarity of languages from a number of different perspectives. One important measure of similarity for the linguist concerns whether or not the languages are GENETICALLY RELATED – whether or not they come ultimately from a common ancestor language spoken at some time in the past, and that over time split into different languages.<sup>8</sup> If two languages have a common ancestor language, the differences between them can be accounted for as the result of accumulated changes over hundreds or thousands of years, whilst similarities are likely to be retentions from the ancestor language. For example, German and English are closely related languages, whose roots can be traced back to a single language, that was also the parent of other modern languages including Norwegian, Danish, Faroese, Swedish, Icelandic, and others. These are members of the Germanic group of the Indo-European family, a large family of languages spoken over much of Europe, and extending as far away as the Indian subcontinent. Other groups in the Indo-European family include Romance (French, Spanish, Italian, etc.), Celtic (Irish Gaelic, Scots Gaelic, Welsh, Breton, etc.), Slavonic (Russian, Ukrainian, Macedonian, Polish, etc.), and Indo-Iranian (Hindi-Urdu, Marathi, Kashmiri, Persian, etc.).

It is probably fair to say that most Australian linguists believe that all mainland Aboriginal languages – with perhaps one or two exceptions – are genetically related (e.g. Dixon 1980: 3, 225; Yallop 1982: 30). However, this belief has not yet been convincingly demonstrated, and remains a hypothesis rather than an established fact.<sup>9</sup> Furthermore, much more work remains to be done to work out the precise details of the relationships between the individual languages. Nor have genetic links with any languages of Papua New Guinea, South-East Asia, or the remainder of the Pacific region (or further afield) been established.<sup>10</sup> Indeed, given the absence of written records, the enormous time depth of man's occupation of the continent, and the eight thousand or so years of separation from New Guinea, it may be that such relationships will never be more than speculative.<sup>11</sup>

Genetic relations among languages are established by the COMPARATIVE METHOD, which involves assembling sets of words – referred to as COGNATES – in

the various languages that are similar in both sounds and meaning. Consider, for example, the following words from English, German, Swedish, and Danish, all of which have the same basic meanings:

English	German	Swedish	Danish
<i>man</i>	<i>mann</i>	<i>man</i>	<i>mand</i>
<i>son</i>	<i>sohn</i>	<i>son</i>	<i>søn</i>
<i>home</i>	<i>heim</i>	<i>hem</i>	<i>hjem</i>
<i>hair</i>	<i>haar</i>	<i>hår</i>	<i>hår</i>
<i>one</i>	<i>ein</i>	<i>en</i>	<i>en</i>
<i>two</i>	<i>zwei, zwo</i> (archaic)	<i>två</i>	<i>to</i>
<i>hand</i>	<i>hand</i>	<i>hand</i>	<i>hånd</i>
<i>house</i>	<i>haus</i>	<i>hus</i>	<i>hus</i>
<i>mouse</i>	<i>maus</i>	<i>mus</i>	<i>mus</i>

It is clear that there are too many similarities among these words for them to be the result of chance resemblances. And considering that they are common and basic everyday words, it is unlikely that the four languages would each have separately and independently borrowed them.<sup>12</sup> They almost certainly derive from common sources, single words in an earlier language, the forerunner or parent of the modern languages. This hypothesis finds further support in the fact that many more such sets cognates involving these and other similarities in sounds can be established for the three languages, and that moreover these similarities are regular.<sup>13</sup> For instance, the sound correspondences between English *ou*, German *au*, and Swedish and Danish *u* in the last two rows turn out to be regular, and are repeated in many other cognate sets.

Using the comparative method it is possible to establish genetic links between languages. However, even if it is not possible to set up cognate sets like the one above for English, German, Swedish, and Danish, it does not follow that the languages are genetically unrelated: the comparative method can demonstrate relatedness of languages, not unrelatedness. It may be that the time depth is simply too great: the languages may have changed so much in sound and meaning that words that ultimately come from the same source no longer appear to be cognates; or alternatively, large-scale borrowing of words may have taken place, replacing cognates by non-cognates, and thus obscuring the relation between the languages. Investigators have encountered such difficulties in using the comparative method to show the genetic relatedness of Australian languages. Indeed, it has sometimes even been suggested – quite erroneously – that the comparative method is inapplicable to the languages of Australia!

One difficulty in attempting to demonstrate the relatedness of Australian languages by the comparative method is the paucity of cognates amongst the languages – and when they do exist, the lack of regularity in sound correspondences. In his seminal *New Approach to Australian Linguistics*, Capell (1956/1966: 85ff.) listed only about forty words that are widespread over the

continent (these he referred to as ‘Common Australian vocabulary’). These include, among others, the following:

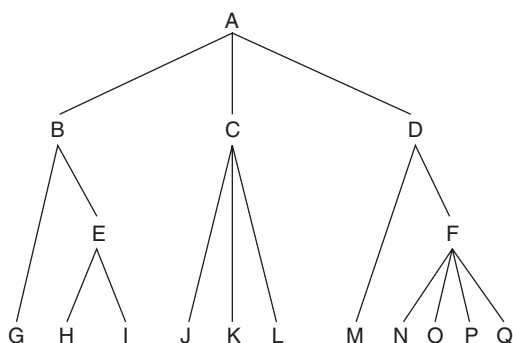
<i>bibi ~ ngaman</i>	‘breast’	<i>ngurra</i>	‘camp’
<i>bina</i>	‘ear’	<i>ngana</i>	‘who’
<i>guna</i>	‘shit, faeces’	<i>jalany</i>	‘tongue’
<i>mili ~ mil ~ miil</i>	‘eye’	<i>bu</i>	‘hit’
<i>jina</i>	‘foot’	<i>ma</i>	‘take’
<i>mara ~ mala</i>	‘hand’	<i>nya</i>	‘see’
<i>gumbu</i>	‘piss, urine’	<i>nyina</i>	‘sit’
<i>mayi</i>	‘vegetable food’	<i>ya</i>	‘go’
<i>gujarra ~ pula</i>	‘two’	<i>bulga</i>	‘big’
<i>waru ~ warlu</i>	‘fire’	<i>mina</i>	‘what’

Unfortunately, this short list came to be interpreted as relatively complete, and thus that few cognates exist among Australian languages. While this may be so on the broad continental level, it does not follow that few cognates exist between every pair of languages, and the real difficulty lies in misapplication of the comparative method.

It has also often been suggested that the rate of vocabulary replacement in Australian languages is high compared to other languages (e.g. Dixon 1972: 331, 1980: 28; Yallop 1982: 38), obscuring genetic relations. One commonly cited reason is the widespread practice of name-taboo, whereby the name of a dead person, as well as any word sounding similar to it, were tabooed, and could not be uttered (Dixon 1972: 331). However, this factor appears to have been overplayed: it was usually only the immediate family of the deceased to whom the taboo applied rigidly, and a taboo was normally relaxed after a period of a few years or so. There is no evidence that name-taboo led to a higher rate of vocabulary replacement in Australian languages than languages spoken elsewhere (Alpher and Nash 1999: 48).

The difficulties with the comparative method in the Australian context may thus have been overestimated, and are perhaps to some extent at least consequences of too large an initial domain: to adopting a top-down, rather than a bottom-up approach. This is not to suggest that applying the comparative method is easy – it is not. But the method should not be rejected out of hand for imaginary problems.

Amongst a collection of genetically related languages, which together as a whole are said to form a single language FAMILY, some are likely to be more closely related to one another than they are to others. Thus, linguists attempt to subdivide the languages of a family into smaller, more closely related sets, called GROUPS. These groups are also genetic units, in that the languages of a group have a common ancestor, a language spoken sometime after the ancestral language for the whole family. For example, the Indo-European family includes the Romance languages – French, Spanish, Portuguese, Italian, etc. – which form a group, so called because they derive historically from Latin, the language spoken by the inhabitants of Rome some two thousand years ago.



*Figure 2.1* A hypothetical genetic tree.

By successive processes of grouping and subgrouping, we can arrive at a model of the genetic relationships which can be represented by a tree, as shown in Figure 2.1. Correspondingly, the same diagram can be used to represent the historical relationships among the languages, and their development from an ancestral language.

Such a diagram shows clearly which languages are most closely related to one another: H and I are closely related to one another; they both derive historically from E, which over time broke up these two languages, perhaps because the speakers divided into two different communities. G is somewhat more different from both H and I than either is from the other. But it is more closely related to them than to J, K, L, etc. The modern language G is a direct descendant – indeed, the only one – of a sister language G' of E (not shown), spoken at the same time as E. But whereas over time E split into two distinct languages, G' did not. This does not mean that G' changed less than E; indeed, the differences between G' and G could be as prominent as the changes between E and H, and E and I. Both G' and E derive from B, which came ultimately from A, the so-called *PROTO-LANGUAGE* for the whole family, which at some point of time diverged into three different languages, B, C, and D.

Establishing subgroups is a tricky and painstaking business. The best evidence is a peculiarity not shared by other members of the family, a characteristic that is not likely to have arisen spontaneously and separately in each of the languages (Anttila 1972: 302). Such a feature is likely to have arisen just once, before the languages diverged. Of course, it could have been independently borrowed by each of the languages, and so in practice linguists look for a number of such features, to provide a better guarantee against borrowing. They also look for features that are unlikely to be borrowed, such as irregular forms in the grammar – for example, a shared irregularity in the forms of a verb, such as an irregular form for past action. The idea here is that if two languages show similar irregularities in the forms of a verb it is more likely that they were inherited from a common ancestor language than that each was borrowed or independently developed.

The linguist needs to know a lot about the languages in order to subgroup them by such means. In many parts of Australia, detailed information of this type is only now beginning to be assembled. Thus, linguists such as Geoffrey O'Grady, William and Lynette Oates, and Kenneth Hale who in the 1960s and early 1970s were attempting to classify and subclassify all of the languages of Australia had to employ more manageable methods, that did not require such intimate knowledge of the languages. The method they used was a statistical one, referred to as LEXICOSTATISTICS. It seems reasonable to assume that over time related languages will share less and less vocabulary. According to the lexicostatistical approach, the rate of replacement of core or basic vocabulary is reasonably constant over time, and thus the percentage of cognates in the basic vocabulary ought to give a measure of how far apart the languages have moved. It was stipulated that, in the Australian context,

- (i) languages sharing 15 per cent or less of basic vocabulary belong to different FAMILIES;
- (ii) languages sharing 16–25 per cent basic vocabulary belong to different GROUPS in the same family;
- (iii) languages sharing 26–50 per cent basic vocabulary belong to different SUBGROUPS of a single group;
- (iv) languages sharing 51–70 per cent basic vocabulary belong to different LANGUAGES in the same subgroup; and
- (v) languages sharing over 70 per cent basic vocabulary belong to different DIALECTS of the same language.

This method is controversial, and has been roundly criticised by R.M.W. Dixon in various publications – for example, Dixon (1980: 262–5). We will not discuss the problems here, beyond commenting on the apparently arbitrary status of the percentages in (i)–(vi), and the difficulty in deciding what constitutes an item of basic vocabulary. (See also Yallop 1982: 33–7.) Despite these criticisms, lexicostatistical counts do provide useful information for the linguist – although it must be treated with caution – and may furnish a useful guide to genetic relatedness (Embleton 1986: 92). As Alpher and Nash (1999: 48) conclude:

The estimates of the fraction of lexical replacement that is attributable to borrowing (however crude), and the estimated equilibrium rate that follows from this, are low enough to suggest that lexicostatistics, as a rough-and-ready method of language subgrouping, can proceed without undue concern for the effects of borrowing. In particular, there appears to be no reason from this quarter to question the lexicostatistical evidence for the 'Pama-Nyungan' subgroup suggested by O'Grady *et al.*

Lexicostatistical counts for Nyulnyulan languages performed by Bronwyn Stokes and myself reveal a picture of the Nyulnyulan languages that is in substantial

agreement with that derived from application of the comparative method (Stokes and McGregor 2003).

Other ways of classifying Australian languages have been employed at various times. One of the earliest, and arguably the most significant, is Arthur Capell's classification (Capell 1940).<sup>14</sup> Capell distinguished in the first place between PREFIXING and SUFFIXING languages. Prefixing languages have both prefixes (meaningful elements placed at the beginning of a word, such as *un-* in English *unusual*, *uncommunicative*, *unhappy*, etc.) and suffixes (meaningful elements placed at the end of a word, like the *-ing* ending in English words *eating*, *looking*, etc.), whereas suffixing languages have only suffixes, and no prefixes. Prefixing languages, as Capell discovered, are restricted to the northern part of the Australian continent, to the Kimberley and Arnhem Land, whilst suffixing languages occur across the rest of the continent.

Capell's classification was TYPOLOGICAL rather than genetic: that is, it was based on shared grammatical characteristics, rather than on retentions from an earlier language. These two modes of classification do not necessarily agree: languages may be genetically related without sharing particular grammatical characteristic; on the other hand, languages that share grammatical characteristics need not necessarily be genetically related. For instance, English is a prefixing language (as it has both prefixes and suffixes), yet it is not related to any traditional Aboriginal language. Interestingly, within Australia the broad typological division into prefixing and suffixing languages coincides remarkably well with a primary division of the languages into the PAMA-NYUNGAN and NON-PAMA-NYUNGAN families,<sup>15</sup> as Map 1 shows. The Pama-Nyungan family – which is spoken over about nine-tenths of the continent – is named after the word for 'man' in Cape York and the south-west of Western Australia respectively, and is well established as a language family. It is, however, somewhat marginal to the Kimberley: these languages were traditionally spoken on the edges of the Kimberley, rather than within the region as such. In the Kimberley proper, the traditional languages were non-Pama-Nyungan. For this reason, this book reverses the traditional emphasis on Pama-Nyungan languages, and focusses attention on non-Pama-Nyungan languages – though not to the extent of ignoring Pama-Nyungan languages.

## 2.4 Language families in the Kimberley

The Kimberley region, as we have seen, is a region of considerable linguistic diversity, with almost sixty languages spoken either today or in the recent past by Aboriginal people living within its borders. These include, in addition to the non-Pama-Nyungan languages traditionally spoken in the region, a number of Pama-Nyungan languages traditionally located in the neighbouring desert regions to the south, east and south-west, plus a few non-Pama-Nyungan languages from nearby parts of the Northern Territory. Not only have peoples from these adjoining regions moved in post-contact times into the Kimberley region, but it is also likely that prior to contact speakers of the languages belonging to the Kimberley core



spoke these neighbouring languages. In addition, a number of non-traditional or POST-CONTACT languages – languages introduced or developed subsequent to European contact – are spoken by Kimberley Aborigines, all but one of which employ words borrowed mainly from English.

Capell's typological classification of Australian languages has already been mentioned. Capell (1940) did more than distinguish between what were to be later called Pama-Nyungan and non-Pama-Nyungan languages; it provided the first comprehensive classification of the northern, non-Pama-Nyungan languages of the Kimberley and Arnhem Land. Again, the classification was primarily, though not exclusively, typological. It went as follows:

PREFIXING LANGUAGES:

Non-classifying, Fitzroy Basin  
Dual classifying, Kimberley  
Non-classifying, Dampier Land  
Multiple classifying,  
Northern Kimberley

Bunuba, Gooniyandi  
Kija, Miriwoong, Gajirrabeng, etc.  
Nyulnyul, Bardi, Nyikina, etc.  
Worrorra, Ngarinyin,  
Wunambal, etc.

SUFFIXING LANGUAGES:

Normal Australian type, Mudburra group Walmajarri, Jaru, Warlpiri, etc.

Prefixing languages are distinguished according to whether they are non-classifying, dual classifying, or multiple classifying. These terms require explanation (see §7.4 for further details).

- NON-CLASSIFYING languages are languages that do not have genders or noun classes – that is, they do not distinguish in their grammars between male (masculine), female (feminine) and non-human (neuter) things or nouns. To put it simply – and somewhat inaccurately – these languages, unlike English, have just one pronoun covering 'he', 'she', and 'it'. Two of Capell's prefixing groups are of this type. These he distinguished mainly on the grounds that they were very different in terms of their words; he was also aware of other major grammatical differences. Suffixing languages are also non-classifying (except for a few isolated instances elsewhere on the continent).
- DUAL CLASSIFYING languages are languages with just two genders: all nouns are either masculine (predominantly males) and feminine (predominantly females).
- MULTIPLE CLASSIFYING languages are those with three or more classes or genders for the nouns. For instance, in Ngarinyin, all nouns are either masculine, feminine, or belong to one of two neuter (i.e. non-human, and neither male nor female) classes.

In regard to the Kimberley languages, the broad outlines of Capell's classification have not been changed much in the more than half a century since he first proposed it. The lexicostatistical surveys of the 1960s and 1970s reconfirm it,

renaming the typological groups as families, and proposing some subdivisions within them. Unfortunately, however, none of these surveys cites the data used, and it seems unlikely that all of the lexical comparisons were actually performed – still today there do not exist even basic wordlists for some of the non-Pama-Nyungan languages classified in the surveys, and complete and reliable basic one hundred item wordlists are difficult to come by for a number of others. More recent surveys are rather more cautious in their claims, and do not pretend to be comprehensive. Nevertheless, the evidence does tend to confirm that Capell's typological groups are also genetic families (i.e. are groups of languages deriving from a single parent language). For these genetic families we adopt the names given in the lexicostatistical surveys, with spellings slightly adjusted for consistency with orthographic conventions. The families traditionally spoken in the core Kimberley region are BUNUBAN (non-classifying Fitzroy basin), JARRAKAN (dual classifying Kimberley), NYULNYULAN (non-classifying, Dampier Land), and WORRORRAN (multiple classifying, Northern Kimberley).

In the remainder of this section we provide some remarks on the language families currently represented in the Kimberley. Two things should be borne in mind. First, although the broad outlines of the classification are likely to prove to be reasonably accurate, many details are still tentative, and open to qualifications and revisions. It is an unfortunate fact that information on some languages is still lacking, and very little detailed historical and comparative reconstruction has been undertaken. And although subgrouping within the families has been established with varying degrees of certainty, to date no attempts have been made to determine relationships among the families. Until this is done, the claim that the families are ultimately historically related must be taken with a grain of salt.

Second, information on numbers and locations of speakers of the languages is notoriously unreliable. Estimates vary considerably from linguist to linguist (see e.g. McGregor 1988a), due partly to the different criteria they invoke for speakerhood, partly to the fact that the criteria have not been put to the test of careful empirical surveys in the field, and partly to a variety of other factors.

#### 2.4.1 *Bunuban family*

This family consists of just two fairly closely related languages, Bunuba and Gooniyandi. These two languages are not mutually intelligible, although many speakers – particularly older persons – are bilingual in both. They are about as similar as English and Dutch, and share approximately 45 per cent common vocabulary on Hale's 100 item list of basic words. Thus, according to the lexicostatistical criteria cited above (see p. 36) they do not belong to different groups, as is claimed by O'Grady *et al.* (1966: 35) and Oates and Oates (1970: 40), but to different subgroups of a single group.

Bunuba and Gooniyandi each have only about a hundred speakers, most of who live in Fitzroy Crossing and nearby outstations; a few live further afield, in other Kimberley townships such as Halls Creek and Derby. Fluent speakers are over

forty years of age, and neither language is being passed on to the children as the primary medium of communication, although it seems that most children do know some words, and can understand the language to some extent.

#### 2.4.2 *Jarrakan family*

This is also a smallish family, consisting of four or five languages traditionally spoken in a narrow belt extending north-east from near the junction of the Fitzroy and Margaret Rivers near Fitzroy Crossing to Wyndham, on Cambridge Gulf, near the Northern Territory border. The term for this family, Jarrakan – previously spelt Djeragan – derives from the word *jarrak* meaning ‘language’, ‘talk’ or ‘speech’ in Kija. It is not a corruption of the name Durack (a well-known family of eastern Kimberley pioneers), as suggested by Tindale (1974: 245).

The main languages in this family are Kija, Miriwoong and Gajirrabeng. According to O’Grady *et al.* (1966), they belong to two groups, Kijic, consisting of Kija only, and Miriwoongic, consisting of Miriwoong and Gajirrabeng. Kija is the most viable of the three languages, with perhaps a hundred or so speakers living mainly in the area from Halls Creek to Kununurra. Miriwoong has perhaps twenty or so fluent speakers, living mainly in Kununurra and nearby outstations; Gajirrabeng has even fewer, possibly no more than about three or four fluent speakers. None of these languages could be said to be healthy (see §3.6): they are not being learnt and used as the mother tongues and primary languages of communication of children, whose level of understanding may, however, be quite high (Kofod forthcoming).

The Jarrakan family also includes some other poorly attested languages or dialects. A language called Doolboong was apparently spoken on the coast of Cambridge gulf, to the west of Gajirrabeng. However, no information is available on this now extinct language, and its classification as Jarrakan remains uncertain – although speakers of Gajirrabeng and Miriwoong say it was like Gajirrabeng. Three other terms remain mysterious: Kuluwarrang, which was possibly a dialect of Kija; Lungka, which may be the Jaru name for Kija, meaning ‘naked’ (Berndt 1975: 123);<sup>16</sup> and Walgi, for which the only available information consists of a wordlist published in Ray (1897), which indicates it was a dialect of Kija (no one today seems to be able to identify this term, however).

#### 2.4.3 *Nyulnyulan family*

The ten or so languages of this family were traditionally spoken on the Dampier Land peninsula and adjacent parts of the Kimberley region proper. They are Bardi, Jawi, Nyulnyul, Jabirrabirri, Nimanburru, Ngumbarl, Jukun, Nyikina, Warrwa and Yawuru, all of which are quite closely related, and share high rates of cognates. Opinions vary as to precisely how the languages are related. However, recent historical and comparative work by myself and Bronwyn Stokes (Stokes and McGregor 2003) suggests a family tree structure as shown in Figure 2.2. (The dotted line indicates an uncertain grouping – information on Ngumbarl is lacking.)

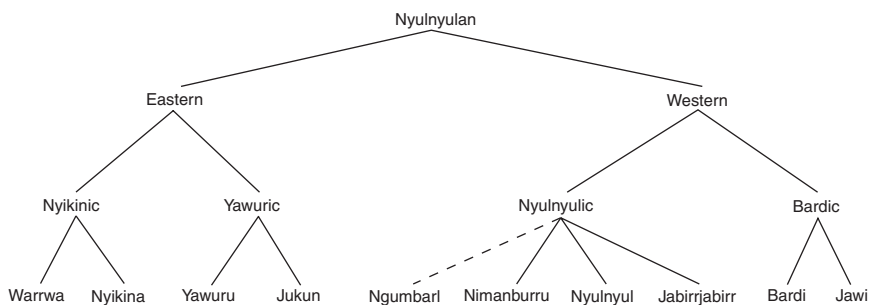


Figure 2.2 Genetic classification of the Nyulnyulan languages (dialects not indicated).



Plate 2.1 Carmel Charles, last fluent speaker of Nyulnyul (© William McGregor).

All Nyulnyulan languages are in rather precarious states, and none is presently being learnt as a mother tongue of children. Bardi is the strongest, with perhaps around fifty speakers (estimates vary considerably). Nyikina has slightly fewer, and Yawuru around twenty. With the exception of Warrwa, which has one known

fluent speaker, the other languages appear to be moribund – no fluent speakers are known, though there may be a few persons who have less than fluent control, or at least remember some words.

#### 2.4.4 *Worrorran family*

This family consists of over twenty named varieties traditionally spoken throughout the mountainous northern Kimberley region. According to both Capell (e.g. Capell 1940; Capell and Coate 1984: 1) and the lexicostatisticians of the 1970s (Oates and Oates 1970: 40–2; O’Grady *et al.* 1966: 35), the family consisted of three groups:<sup>17</sup>

Worrorric	Worrorra, Yawijibaya, Winyjarrumi, Umiida, Unggarrangu, Unggumi
Ngarinyinic	Ngarinyin, Ngarnawu, Andajin, Wolyamidi, Walajangarri, Worla, Guwij, Munumburru
Wunambalic	Wunambal, Wilawila, Gambera, Gunin/Kwini, Gulunggulu, Miwa, Yiji

Historical and comparative research recently undertaken by Alan Rumsey and myself (McGregor and Rumsey 2003) confirms both the genetic unity of the group – contra Dixon 2002: 672–4 – and the division into three primary groups.

The language/dialect situation is quite complicated, particularly in parts of the Wunambalic group, which shows resemblances to the situation in the Western Desert (see Berndt 1959; Miller 1971) where the terms used by speakers are flexible, overlapping, and do not usually correspond to what an anthropologist would see as distinct ‘tribal’ groups. As Capell and Coate put it,

... some of these designations [i.e. language and dialect names] are made for convenience of treatment, especially in the northern subdivision [i.e. the Wunambalic group], where the variations are slighter than the other two, and the application of names by the people themselves quite uncertain. There has been much disagreement among anthropologists as to the application of names to the various ‘tribes’ in the north and east of the NK [Northern Kimberley] area.... The people of the Forrest River (FR) area do not seem to have a tribal name at all. They have variously been called Miwa, Yeidji, Gwini, all of which terms have a validity, but none of them is currently accepted by all the people. The terms Walar and Manunggu refer to sections of the FR tribes and are not primarily linguistic terms even though they do seem to correspond with dialect variations within the north-eastern section. On the other hand, then names... [of] the central and western [varieties] are used and recognised by the people themselves. One man is definitely a Worora, another Wunambal, another a Ngarinjin, and so on. The island communities, of course, are marked off by their natural boundaries, but these on the mainland are not

so distinguishable, and it is sometimes difficult, if not impossible at the present day to determine just where the boundaries ran while Aboriginal civilisation was still intact.

(Capell and Coate 1984: 2)

For the other two groups also the situations are not entirely clear-cut. Yawijibaya is sometimes treated as a separate language, sometimes as a dialect of Worrorra; Unggumi, by contrast, seems to be consistently regarded as a separate language. And in regard to the Ngarinyin group, at least these days, most knowledgeable people say that Ngarnawu, Walajangarri, Wurla and Guwij are kinds of Ngarinyin. Andajin, however, is never said to be a kind of Ngarinyin; it is consistently regarded as a separate language (Alan Rumsey, pers. comm.).

As in the case of other Kimberley families discussed here, the Worroran languages are not particularly viable, and are spoken only by older people. Ngarinyin



*Plate 2.2* Billy Munro (Morndi), last fluent speaker of Unggumi (© William McGregor).



and Wunambal are the strongest in terms of numbers of speakers, each with maybe a hundred or so speakers (estimates vary considerably and are not reliable). For the other varieties in the Ngarinyinic subgroup no reliable estimates are available of numbers of speakers, though they are certain to be small; Andajin probably has only two fluent speakers. For the Wunambalic subgroup, estimated numbers of speakers vary from a handful (for Gambera, Gulunggulu, Gunin/Kwini, and Miwa) to a high of 500 for Yijji – a very unlikely figure cited in Glasgow *et al.* (n.d.). There are no known fluent speakers of any language of the Worrorric group.

#### 2.4.5 *Pama-Nyungan family*

As we have already seen, Pama-Nyungan languages traditionally covered the entire Australian continent except for the Kimberley and Arnhem Land; the intrusion of their owners into the Kimberley proper is a relatively recent phenomenon, dating to post European contact. The seventeen or so Pama-Nyungan languages in the region fall into four subgroups of a single group, these being named after their words for ‘person’ or ‘man’: Marrngu, Ngumbin, Yapa (Ngarrka in O’Grady *et al.* 1966), and Wati (also called the Western Desert subgroup). The Marrngu languages (Karajarri, Mangala, and Nyangumarta) were traditionally spoken to the south-west of the Kimberley, in the northern Pilbara. These days the majority of speakers live at La Grange, Broome, Port Hedland and Strelley. The Ngumbin languages (including Walmajarri, Jaru, Juwaliny, Nyininny, Wanyjirra, Gurindji,



Plate 2.3 Michael Angelo, Wangkajunga speaker.

and Malngin) were spoken to the east of the Marrngu languages, in a line extending in an easterly direction into the Northern Territory. To their south were the Yapa languages (Warlpiri and Ngardi) and Wati languages (Yulparija, Wangkajunga, Kukatja, and Pintupi).

Today, Pama-Nyungan languages are the most viable of the traditional Aboriginal languages spoken in the Kimberley. Many have over a hundred speakers; indeed, Warlpiri and Walmajarri may have over a thousand. Nonetheless, like the non-Pama-Nyungan languages, most appear to be weakening. With the exception of the languages spoken in the most outlying communities – Kukatja at Wirrimanu (Balgo), Jaru at Yaruman (Ringers Soak) – children are not learning the traditional language as their first and primary language.<sup>18</sup>

#### ***2.4.6 Other traditional language families***

A small number of speakers of Murrinh-patha (meaning ‘language-good’) and Jaminjung now reside in the eastern Kimberley region, in the vicinity of Kununurra. Most speakers of both languages, however, reside outside of the Kimberley, in Wadeye (Port Keats) and the Victoria River area, respectively.

Murrinh-Patha is now classified as a Daly River language, this being a geographically defined set of about a dozen languages that fall into five low-level genetic subgroups, between which much diffusion of words and grammatical forms and characteristics has occurred (Ian Green, pers. comm.). According to the lexicostatistical classifications, Murrinh-Patha was the single member of a family named Murrinh-pathan. Murrinh-Patha is a strong language, with upwards of 1,500 speakers; it is spoken by the majority of the population of the Wadeye community.

Jaminjung belongs to what used to be referred to as the Jaminjungan family, which is now regarded as one branch of the Mindi family, whose other members – including Jingili and Wambaya – are spoken far to the east in the Barkly Tableland region (Chadwick 1997). Jaminjung is an endangered language: together with Ngaliwurru (in a dialect relation to it) there may be 50–150 speakers, scattered over a wide area; neither is being learned by children as a first language.

#### ***2.4.7 Post-contact languages***

The term post-contact language refers to the non-traditional languages and varieties of speech spoken by Aborigines. In the Kimberley region these include three varieties that took their words mainly from English: Aboriginal English, Kriol and Pidgin English. In addition there is one variety that did not, Broome Pearling Lugger Pidgin. Pidgin English and Broome Pearling Lugger Pidgin are called PIDGINS: they are not full languages, but rather auxiliary forms of speech that have arisen in contact situations between members of different speech communities, and are used in a restricted range of social contexts. Aboriginal English is regarded as a dialect of English, whereas Kriol is a distinct and different language,



a CREOLE – a full language that emerged when Pidgin English became the mother tongue of a group of children (see §3.4.2).

Today all Aboriginal people in the Kimberley understand and speak some post-contact variety based on English. Kriol is now the mother tongue of most Aboriginal children in the Kimberley, and the number of speakers of this language runs into the thousands. Most older people, at least in the interior of the Kimberley, also understand and speak it, though usually as a second (or later) language. In addition, Aboriginal English is also spoken by many Kimberley Aborigines, including children. There are no clear dividing lines between Pidgin English, Kriol and Aboriginal English, which merge into each other. The other post-contact language, Broome Pearling Lugger Pidgin, has fallen into disuse in the past thirty or so years.

This book is primarily about traditional Aboriginal languages; §3.4 provides some basic information on post-contact varieties.

### Further reading

McGregor (1988a) provides fairly comprehensive basic information on Kimberley languages, including estimates of numbers of speakers, classifications, alternative names, orthography, references, and language programs. Menning and Nash (1981) and Thieberger (1993) do the same for Central Australia and Western Australia south of the Kimberley. All three require updating. The second half of Angelo *et al.* (1998) contains very readable and generally reliable overview of Australian languages, though the information on Kimberley languages is minimal, poor, and inaccurate – including the estimate of ‘about 15 different languages’ (p. 218). Dixon (2002), adopting the linguistic criterion of mutual intelligibility, also recognises around the same number of languages; his ‘languages’ generally correspond to my language groups. In fact, it seems that he has underestimated the differences within some of these groups, especially in Worrorran, and to a lesser extent Nyulnyulan.

Crowley (1992) is a useful introduction to the methods of historical and comparative linguistics; more detailed and technical are Anttila (1972) and Hock (1986). Applications of the comparative method to Australian languages are too numerous to list here; noteworthy are Hale (1966), Crowley (1976), Evans (1988), and Blake (1988). Evans (forthcoming) contains a number of applications of the comparative method to non-Pama-Nyungan languages. Criticisms abound of the comparative method and the tree model of genetic relatedness and historical change – for instance Dixon (1997) (Crowley 1999 is an excellent critique) and Aikhenvald and Dixon (2001) (which includes two papers dealing specifically with Australian languages). Dixon (2002) accepts the genetic relatedness of Bunuban, Jarrakan, and Nyulnyul languages. However, he considers that the Worrorran languages form a mere areal group; McGregor and Rumsey 2003 argue to the contrary, that the languages are indeed genetically related. Dixon also rejects the Pama-Nyungan idea – see note 15 to this chapter. Rumsey (1993) is an excellent discussion of language, tribe and territoriality; general anthropological works such as Elkin (1938/1974), Berndt and Berndt (1964/1992) and Maddock (1972/1974) can be consulted for further information on the notion of Dreamtime. (See also references at end of Ch. 3.)

## LANGUAGE IN KIMBERLEY ABORIGINAL SOCIETIES

### **3.1 Traditional Kimberley Aboriginal way of life**

Prior to European colonisation, Aboriginal people all over Australia lived as hunters and gatherers. They were restricted nomads who ranged over relatively delimited areas in smallish foraging bands, exploiting the resources of the sea, rivers and creeks, and land. The core Kimberley region is relatively rich in food resources, and supported a high population density in comparison with the desert regions on its southern and south-eastern fringes. Agriculture was not practised, and nor (in general) was food stored for future consumption.

Labour was divided on a sexual basis. Men were the primary hunters, who pursued the larger game; women were the primary gatherers, who provided the bulk of the vegetable staples, smaller animals, and animal products such as honey. This division was not completely rigid, and men would gather, women hunt, as opportunity or necessity arose.

Material culture was relatively simple. The basic toolkit for men included various types of spears, woomeras (spear-throwers), boomerangs, and clubs for hunting, fishing, and fighting. Women used digging sticks for digging yams and the like, stone axes for chopping out honey, and coolamons (carrying dishes) for carrying berries, seeds, babies, and so on. Other tools included fire drills, fire saws, and grinding stones. Permanent dwellings were not made, although temporary shelters were constructed from available materials such as spinifex and branches. Because of the nomadic lifestyle, almost every artefact had to be portable. Exceptions included grinding stones, which were too heavy to be constantly carted, and would be left in suitable places near sources of seeds. In some places more fixed and permanent structures were constructed. The coastal people of Dampier Land, for instance, built stone fish traps, many of which still survive, and some are still in use (Smith 1997).

Kimberley Aborigines had an intimate knowledge of the environment, including its geography and the seasonal distribution of plant and animal species. They had an extensive understanding of the food value of plants, and their medicinal uses. The habits of animals were well known, and a variety of different hunting



*Plate 3.1* Kimberley points (© William McGregor). These beautiful points were made by pressure-flaking quartz to obtain a small glassy head – thus the name ‘bottle spear’; in post-contact times they were often made from glass and porcelain (obtained from telephone lines). Kimberley points were not only used in hunting larger game such as kangaroos and euros, but also often had mythological or religious significance, sometimes being implanted magically in a person in a revenge killing; they were widely circulated along the traditional exchange routes. The points shown here were manufactured in the Mount House region in the early 1920s.



*Plate 3.2* Remains of stone fish trap at Point Emeriau, in Nyulnyul country (© Moya Smith).

techniques were employed according to the animal, seasons, and geography. For instance, among the fishing techniques employed by the coastal Dampier Land peoples were stone traps, temporary traps of grass that were placed in tidal creeks, spearing, clubbing with a special type of boomerang, and use of a fish 'poison' that stunned fish, permitting them to be collected by hand. Both men and women were expert at tracking, a skill taught at a young age. They could identify animals by their tracks, and follow them even over difficult terrain.

Place played a very important role in Kimberley Aboriginal society. People identified themselves with certain tracts of land by conception, birth, ownership, and various other ties. They had an intimate and detailed knowledge of their country, and the country over which they had hunting and gathering rights. We will see many reflections of the importance of place throughout this book.

Day-to-day interactions were to a large extent confined to the foraging group; less frequent interactions occurred between these groups. Marriage was normally outside of the group, and not infrequently outside of the tribe. Certain places were the habitual settings for large gatherings of people from different tribes, who met together to perform important rituals. An extensive network of trade and exchange – widely referred to by a term resembling *wirnandi* or *wurnandi* – crossed the Kimberley region in two main pathways, extending beyond into the desert region, and through into Central Australia (Akerman 1979). Myths, rituals, body designs, and the like passed in a north-westerly direction from the centre through to Dampier Land, while in the opposite direction moved material items such as pearl shells and shields.

The life of an individual was divided into stages, some of which had associated 'rites of passage' marking the progression from one stage to the next. These began at birth, when the new born baby might be 'smoked' – put in smoke made from burning the leaves or branches of a certain tree – in order to make it strong. Males underwent a lengthy series of initiation rites, beginning at early adolescence, and extending into manhood. Stages along the way to full manhood were marked by bodily operations, including cicatrising (scarring of the chest), tooth evulsion (removal of one of the front teeth), circumcision, piercing of the nasal septum, and sometimes subincision (slitting of the underside of the penis along the urethra). At the time these operations were performed, important religious knowledge was imparted to the initiand. Girls also underwent rites of passage marking their entry to womanhood, though these were not normally as elaborate as the initiation rituals boys passed through – and less is known about them.

Death was marked by a complex series of mortuary rites; these usually incorporated inquests into the cause of death. Except if the deceased was very young or very old death was usually attributed to human agency, often sorcery. The most common practice was for a cadaver to be placed on a platform in a tree, where it was left to decompose. On the ground below were placed a number of stones or sticks, each representing a suspect killer. After some months, the stones would be examined; the stone marked by the exuviae of the dead person would identify the killer (not necessarily be the person physically responsible). The death could then

be avenged either by a revenge party, or by ensorceling the culprit through a ritual referred to in Australian English as 'pointing the bone'. After the body had fully decomposed, and only bones remained, it would usually be finally laid to rest in a grave or cave.

Relatives of the deceased observe various taboos. This usually includes a taboo on eating meat for a mourning period that might last for some months, until terminated by a neutralising rite. Everywhere in Australia a taboo on uttering the name of a recently deceased relative was – and in many place still is – observed; this could also extend to words that sound like the name. Indirect or circumlocutionary reference is made to the deceased, if absolutely necessary. The name-taboo might last for a number of years, in the case of a very close relative, a shorter time for a distant relative.<sup>1</sup> In some cultures widows observe a taboo on speaking for some months (see also §13.2).

Music, song, and dance played an important role in Aboriginal cultural life. Traditional musical instruments included clapsticks (a pair of sticks that were hit together) – in some groups, a pair of boomerangs were hit together instead – and the bullroarer (a small flat piece of wood attached to a string that was whirled around the head, making a dull roaring noise). Beat was also marked by clapping cupped hands against the thighs. The didgeridoo was not known in the Kimberley in pre-contact times, but has recently been introduced in many places; it is widely known as *bambu*.

Each tribal group had a repertoire of sacred and secular songs. Sacred songs were associated with religious ritual; they were known only to initiated men, and sung only on particular ritual occasions. Secular songs were of various types, including love songs, which were sung to assist in the seduction of a desired lover – not as serenades performed in the presence of that person, but in their absence, to enchant them magically; songs sung for the increase of natural species; songs sung for contraceptive purposes, and so on. Both sacred and secular songs were exchanged between groups, and travelled along the above-mentioned exchange routes; they were also in continual processes of invention by individuals who 'dreamed' them, sometimes in a language other than their own mother tongue. Songs were always sung in the language of their invention; they were never translated.

The above remarks are very general, cover only a few aspects of traditional Aboriginal life, and gloss over many details, including intergroup differences. It is possible to identify, broadly speaking, five main cultural blocs in the greater Kimberley region, that correspond roughly to the five main language families, and also to the primary environmental divisions. There is the Northern Kimberley bloc, which occupied the major Kimberley Block; these were speakers of the Worroran languages. A second bloc is the Dampier Land peoples, who spoke mainly western Nyulnyulan languages, and resided on the flat Dampier Land peninsula and adjacent areas. A third cultural group are the southern river peoples, who inhabited the largest river, the Fitzroy and its tributaries; these were speakers of the two Bunuban languages, and the eastern Nyulnyulan languages Nyikina, and Warrwa. A fourth cultural group is the desert peoples, speakers of Pama-Nyungan languages, Walmajarri,

Kukatja, Wangkajunga, Karajarri, Jaru, etc., whose country was the desert regions bordering the core Kimberley region. The fifth bloc is the eastern Kimberley peoples, speakers of Jarrakan languages, who inhabited the Ord River Basin.

These cultural blocs have some relevance today and in the recent past, and these days it appears that, to the young at least, tribe-like groups are less important than the cultural blocs. There are also striking similarities in the post-contact histories of groups from the same blocs, reflecting regional differences in colonisation.

Today, of course, no Kimberley person lives a traditional way of life. Nevertheless, there are aspects of modern Aboriginal life, culture, beliefs, and so on, that are continuations from the traditional past. For example, although Kimberley Aboriginal people now live in houses in towns and small 'outstation' communities, and the nomadic hunting and gathering way of life is no longer practised, they still frequently go on bush trips, hunting and gathering using modern technology such as motor cars, and rifles. And in many communities boys still undergo some forms of initiation.

### 3.2 Social organisation

Traditional Kimberley Aboriginal society can be described as kin-based in the sense that every person in the social universe – including newcomers – is perceived as being in some kin relation with everyone else. This kin relation was either genealogical ('actual') or classificatory – that is, based not on blood-ties, but on presumed relationships, determined by other considerations, much as in mainstream Australian society a child might call a friend of their parents *aunt* or *uncle*. On the one hand kin relations govern interpersonal rights and obligations; for instance, two persons related as father to son might be expected to behave in some ways like a father and son, the father providing the son with food or money. On the other hand, the kin relation between two individuals is often (except when it is a close genealogical one) open to a certain amount of manoeuvring and negotiation in accordance with the desired interpersonal relationship the individuals wish to establish with one another (Rumsey 1981).

Interacting with the kinship system are divisions of the social world into classes, implemented in some form or other in most Aboriginal groups throughout the Kimberley. Three main types of class system are found: MOIETIES, which distinguish two classes; SECTIONS, that distinguish four; and SUBSECTIONS, distinguishing eight. Moieties are found in the North Kimberley cultural bloc; sections amongst some cultures of the Dampier Land bloc,<sup>2</sup> and amongst speakers of Pama-Nyungan languages to the south, on the coast between Broome and Port Hedland; and subsections are found elsewhere, among the southern river peoples, the desert peoples, and the east Kimberley peoples. Subsections are a relatively recent arrival in the Kimberley, and in most cases replaced former section systems early in the twentieth century.

In the normal run of things, membership of a class in any type of system is determined by the class of the individual's mother. Class membership also plays

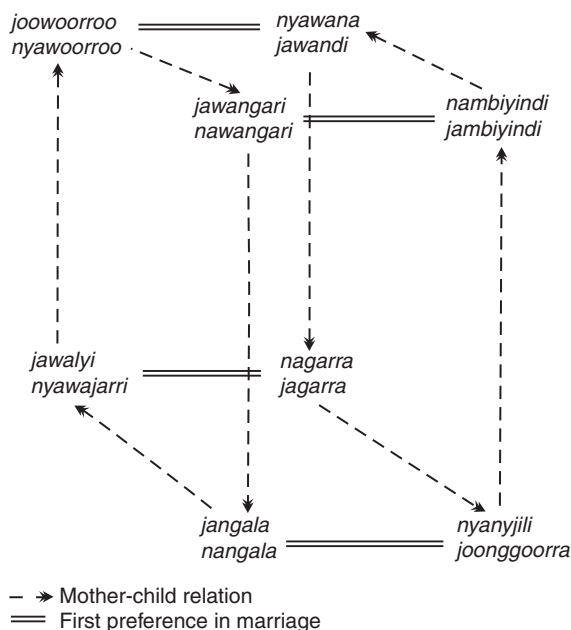


Figure 3.1 Gooniyandi subsection system and terms.

a role in determining appropriate marriage partner: one's spouse should always belong to a different class from oneself. Within the section and subsection systems the choices can be specified more precisely. This is illustrated in Figure 3.1, which shows the Gooniyandi subsection system. (Notice that each subsection has two terms, one for male members, the other for female members.) Thus, for a *jawandi* man the preferred wife belongs to the *nyawoorroo* subsection. Not all other unions are equally bad. A second preference for spouse is from the subsection diagonally opposite the first preference on the same face of the cube – thus, for the *jawandi* man a *nangala* woman.

It is easy to see how a subsection system can be used to determine kin relations amongst persons who have no actual genealogical ties. One can simply calculate the relation on the assumption that first preference marriages were consistently made, and trace the shortest path between the two subsections on Figure 3.1. Thus, a *jawandi* man would normally call a *jawangari* man 'father', since the mother of *jawandi* is *nambiyindi*, whose first preference of husband is *jawangari*. The other shortest path would lead to the kin relation 'son', which would be an acceptable alternative, though less likely if both individuals are adult men. The subsection system is frequently used in this way these days to incorporate outsiders – granted that they have been assigned to a class – into the kinship network, so that the appropriate manner of interpersonal behaviour can be determined.



Different types of kinship systems were used in different tribes, and different types of behaviour were expected between persons in the same kin relations – though there were similarities. One widespread system, called the Aranda system, distinguishes four kinds of kin terminologically in the grandparental generation: thus, different terms are used for the mother's parents from the father's parents. In such systems marriage of first cousins (children of parents' siblings) was not permitted, though marriage with certain kinds of second cousins (grandchildren of grandparents' opposite sex siblings) was. For a man, the first preference for a wife was a classificatory – but not a genealogical or 'close'<sup>3</sup> – mother's mother's brother's daughter's daughter: that is, someone from the same subsection as the latter, in a subsection system.

Not only are the kinship systems of Aboriginal societies elaborate in comparison with European societies, but also the system of terms are more complex, and make many more distinctions than are made in languages such as English. We conclude our discussion of kinship with a glimpse at the system of kin-terms of Gooniyandi, which has an Aranda system.

The basic kin-terms identify a single individual, the REFERENT, in a specified relation to EGO – the person from who the relation is calculated – who is chosen as the 'centre' for the purposes of the calculation.<sup>4</sup> Two types of basic kin-terms are distinguished, binary and ternary.

BINARY KIN-TERMS specify the kin relationship between referent and ego in isolation as it were, as in 'my brother', which links the speaker and another person through the relationship of brotherhood. There are over thirty binary kin-terms in Gooniyandi. The known terms are listed in Table 3.1, together with indication of some of the relations they can be applied to; the list is not exhaustive.

The terms have been divided into three groups, depending on generation level with respect to ego: same generation, one generation distant, and two generations distant. Most terms in the latter two groups can apply in both directions, to relatives in both the previous and the subsequent generation(s). In particular, notice that there are no separate terms for grandparents and grandchildren: the same terms cover both. And although there are separate terms for parents and children, we find the former terms used also for certain kin in the generation below.

Within each of the three groups terms are given first for the closest CONSANGUINEAL, that is, blood or genetic relative – followed by terms for in-laws, relatives through marriage. More terminological distinctions are made among consanguineal kin than between in-laws.

It will be noticed that all the same sex siblings of an individual are normally grouped together under a single kin-term. Different sex siblings tend to be referred to by different terms when ego and referent are not separated by very many kinship ties, but they are often not distinguished terminologically when ego and referent are separated by more ties. Effectively, sex is relevant within one generation of ego for consanguineal relations; but consanguineal relations two generations distant generally group siblings together terminologically. Thus, if I call a man 'father', I would also call all of his brothers 'father'; if I call a woman



Table 3.1 Binary kin-terms in Gooniyandi

<i>Kin-term</i>	<i>Some kin relations denoted by the term</i>
<b>Ego's generation</b>	
<i>marna</i>	B <sub>+</sub> (of ♂), FBS <sub>+</sub> (of ♂)
<i>ngaja</i>	B <sub>-</sub> (of ♂), Z <sub>c</sub> (of ♂), B (of ♀ <sub>a</sub> ), MZS, FBS <sub>-</sub> (of ♂)
<i>marni</i>	Z <sub>a</sub> (of ♂), Z (of ♀), FBD, MZD
<i>narrimba</i>	Z (from same M and F)
<i>goornda</i>	MBS, FZS, MMBDS (close), FFZDS (close)
<i>goorndi</i>	MBD, FZD, MMBDD (close), MMBW (close)
<i>garingi</i>	W, WZ, BW
<i>ngoombarna</i>	H, HB, ZH
<i>garndiya(ngi)</i>	WB, MBCh (distant)
<i>mawoornda ~</i> <i>magoornda</i>	MBDH, MBSW (distant), FZSW, FZDH
<i>marra</i>	WB (who gives his Z as W)
<i>mandirri</i>	HZ, HMZD
<b>One generation above or below ego</b>	
<i>ngaboo</i>	F, FB
<i>ngarranyi</i>	M, MZ, FZSD, MFZD, MBSD
<i>nyaanyi</i>	MB, FZH, MMS, MMBS, MBSS, FZSS, MFZS
<i>ngawi</i>	FZ, MBW
<i>marriyali</i>	WM, WMB, WMZ
<i>lambadi</i>	WF, HF, SW, WFB, WFZ
<i>goorriji</i>	HM, ZSW, HMB, HMZ
<i>ngaloowinyi</i>	Ch (of ♂), BS, BD, WZD, WZS
<i>ngaliganyi</i>	D (of ♀), WBD
<i>ngalangi</i>	S (of ♀), WBS
<i>joogoo</i>	Ch, FZDCh
<i>garli joogoo</i>	WBCh, ZCh, MBDCh (of ♂)
<i>ngoonyarri</i>	SW (of ♀)
<b>Two generations above or below ego</b>	
<i>girlagi</i>	FF, FFB, FFZ, SCh (of ♂)
<i>ngawiji</i>	FM, FMZ, FMB, SCh (of ♀), MMBW (distant)
<i>jaja</i>	MM, MMZ, MMB, MFZH, WFM, FZSW, MBSW (close), DCh (of ♀)
<i>jaminyi</i>	MF, MFB, MFZ, WFF, WMM, MMBW, DCh (of ♂)
<i>jabi</i>	familiar term for a <i>jaminyi</i>
<i>barngoo</i>	MMBW (close)
<i>boorngali</i>	WMM
<i>ngoomara</i>	WMF

*Note*

For the sake of space, standard anthropological abbreviations are used in the table: B – brother; Ch – child (either sex); D – daughter; F – father; H – husband; M – mother; S – son; W – wife; and Z – sister. Combination of symbols indicates the relation of kinship ‘possession’, the ‘possessor’ occurring to the left of the ‘possessed’ kin. Thus, for example, MB means ‘mother’s brother’, and FZD means ‘father’s sister’s daughter’. The subscript + means ‘older’, – means ‘younger’, and a means ‘adult’.

'wife', I would call all her sisters 'wife'; but my father's sister and wife's brother would be called something different from 'father' and 'wife'. For in-laws, siblings are distinguished by sex only within the same generation; those one or two generations distant are designated by the same term. Thus all of the siblings of my mother-in-law are called by the same term, 'mother-in-law'.

To provide a more graphic view of the system, Figures 3.2–3.4 display some of the basic binary kin-terms on simple genealogical trees, based on a male ego (triangles indicate males, circles, females). Figure 3.2 shows the immediate consanguineal kin of ego, and their spouses; Figure 3.3 shows the more distant consanguineal kin, the cousins; and Figure 3.4 shows the immediate consanguineal kin of ego's wife.

The Gooniyandi system of kin-terms is fairly typical in terms of the number of distinctions it makes, and the general principles of grouping together of relations under a single term.

TERNARY KIN-TERMS – also called 'shared' and 'triangular' – mark the relationship between referent and ego indirectly, through an intermediary (technically, the 'propositus'), who is usually the addressee. Roughly, their import can be glossed as 'your X who is my Y', or 'your X, you being my Z'. Figure 3.5 depicts the difference between binary and ternary kin-terms.

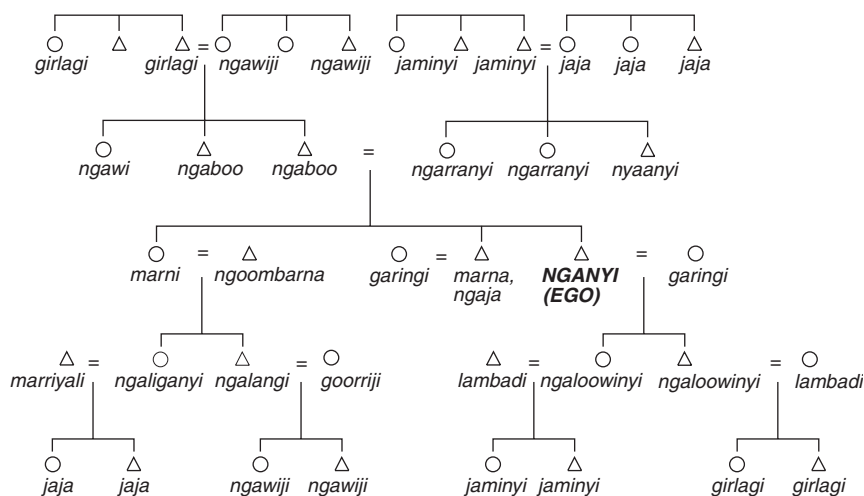


Figure 3.2 Basic Gooniyandi binary kin-terms for a male ego's close consanguineal kin. The same term is used for siblings of either sex for relatives that are two generations distant. Usually there are separate terms according to sex for relatives one generation away from ego who are siblings; one exception is for offspring of a man, who are not distinguished according to sex. Offspring of a woman, however, are; this means that a man uses different terms for his sister's son and her daughter, but the same term for his own son and daughter.

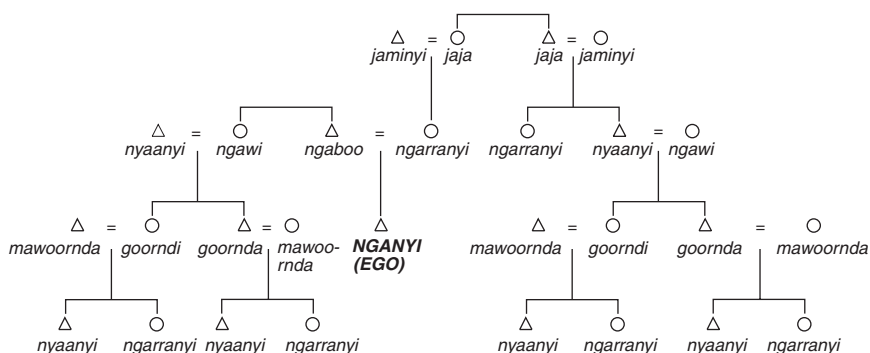


Figure 3.3 Basic Gooniyandi binary kin-terms for a male ego's more distant consanguineal kin. This figure illustrates two general principles of kinship terminology: (1) cousins related through different sex siblings (cross-cousins) are treated terminologically differently from those related by same sex siblings (parallel cousins), who are referred to by the terms for siblings (not indicated); (2) cousins related through different sex siblings either one or two generations distant from ego are treated the same terminologically – that is, the same terms are used for first and second cross-cousins.

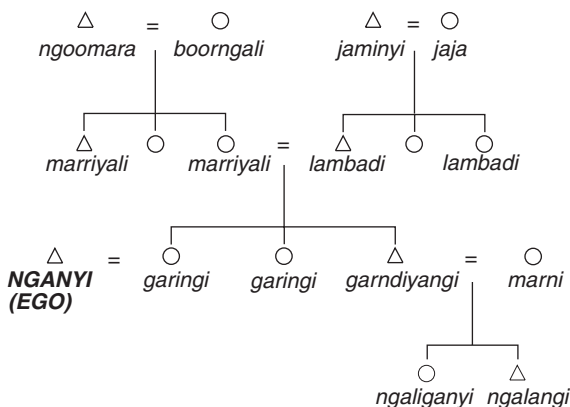


Figure 3.4 Basic Gooniyandi binary kin-terms for a male ego's wife's close consanguineal kin. The terms *boorngali* and *ngoomara* are used exclusively for the biological parents of the actual wife's genealogical mother; if any of these relations are classificatory, the terms *jaminyi* and *jaja* are used instead – that is, the same terms are used for classificatory WMMs and WMFs as for real and classificatory WFF and WFM. Implicit here is marriage with a distant classificatory second cross-cousin, a MMBDD (the *ngoomara* is a classificatory MMB).

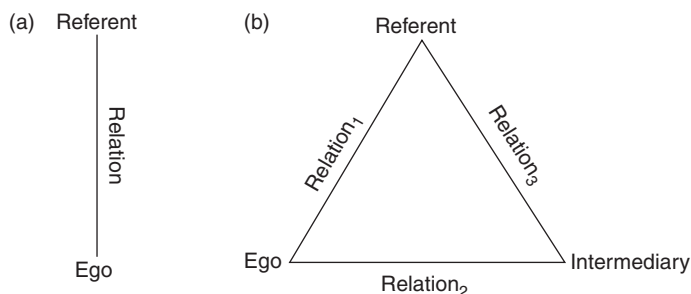


Figure 3.5 Nature of (a) binary and (b) ternary kin-terms.

Table 3.2 Gooniyandi ternary kin-terms

<i>Kin-term</i>	<i>Relationship of intermediary (addressee) and referent to ego</i>	<i>Gloss</i>
<i>manaroo</i>	intermediary = W; referent = WM, WMB	'your mother' (to W)
<i>manggan. goo</i>	intermediary = W; referent = WM; intermediary = WM; referent = W	'your mother' (to W); 'your daughter' (to WM)
<i>moorrkali</i>	intermediary = WMB; referent = WM, WMB, WMZ	'your sibling' (to WMB)
<i>lamboonoo</i>	intermediary = W; referent = WMB	'your uncle ( <i>nyaanyi</i> )' (to W)
<i>balmandi</i>	intermediary = WB; referent = WM	'your mother' (to WB)
<i>woorrroo</i>	intermediary = WMF; referent = WM	'your daughter' (to WMF)

There are only about half a dozen ternary kin-terms in Gooniyandi; they are listed in Table 3.2, which specifies some relationships they can be applied to. Notice that ternary terms exist only for relations in which at least one of the persons, usually the referent, is an in-law of ego.

### 3.3 Speech styles

As mentioned earlier, the tenor of interpersonal relationships in traditional Aboriginal societies was to a large extent modulated by kinship. An important aspect concerns the style of speech the interactants adopt: a particular style of speaking may be appropriate among individuals in a certain kin relation, but not among individuals in a different relation. This need not be reciprocal: the style adopted by one individual may be different from the style adopted by their partner. There is nothing exotic about any of this. In mainstream Australian culture one would adopt a different style of speech when conversing with a uniformed police officer to what one would use when speaking to a close friend or lover; two

uniformed police officers would adopt different styles of speaking to one another than to a criminal they were in the process of apprehending.

The primary difference between the situations for Aboriginal and European cultures relates to the features that are most salient in characterising the interpersonal relationships: kinship in the former case, social role, position, or socio-economic class in the latter. The relation between these features and styles of speaking is one of speech norms; it is not one of predetermination: people do not always follow the norms, and sometimes speak in inappropriate ways, flouting the rules. Doing so generally conveys a particular interactive meaning. For instance, a criminal could speak to a policeman in the same manner as one policeman to another, but to do so would convey certain interactive meanings, and could be a rather dangerous thing to do.

Two stylistic extremes are found in a number of Kimberley languages, avoidance styles and joking styles. The former is associated with interactions between individuals who ought to maintain distance from one another, the latter between individuals who can interact freely and intimately. The joking style is typified by ritualised insults, often concerning the other's promiscuity; these are usually formulaic in nature. Avoidance styles are characterised not so much by formulaic utterances as by different patterns of language use; some of these are commented on in §3.3.1. In §3.3.2 we turn briefly to secret styles, speech styles used to conceal the meaning from outsiders, generally speakers of the same language who do not belong to the interacting group.

### 3.3.1 *Avoidance style*

Many Australian Aboriginal languages have a particular style of speech used between individuals in a kin relation that requires a degree of circumspection in interaction, that requires avoidance of social intercourse to varying degrees. The strictest avoidance was generally between a man and his wife's mother, and the latter's sisters, and reciprocally, between a woman and her daughter's and sister's daughter's husband, where these relations are actual. The relation between a woman and her husband's mother and the latter's siblings, especially her brothers, were also usually subject to strong avoidance; these belong to the same subsection as the daughter's husband in subsection systems, as can be seen in Figure 3.1. Generally speaking individuals in such close in-law relations were expected to maintain both physical and social distance from one another: not to approach one another closely, not to gaze at one another, not even (in some societies) to talk to one another. Similar degrees of avoidance might be characteristic of individuals in potential mother-in-law to son-in-law relations – who might want to establish the relation to facilitate a marriage.

Less strict avoidance was expected between a man and his wife's mother's brothers, and a woman and her daughter's husband's sisters, as well as between more distantly related in-laws, between individuals related by classificatory rather than actual ties. Such relatives were generally permitted to interact more

closely with one another, physically and socially. For instance, they might be permitted to engage in joint social activities such as hunting, or conversing, and might well meet one another's eye. There were of course differences between Kimberley cultures in terms of the types of behaviours considered appropriate to avoidance kin, and the remarks of this section are highly general and should not be presumed to apply in all details to all societies.

Where speech between avoidance kin was permitted, in some Kimberley Aboriginal cultures a special speech style or variety was expected to be used; this style was also used in the presence of, or when speaking about one's actual or a close mother-in-law or son-in-law. Languages including Bunuba, Gooniyandi, Walmajarri, Jaru, Wanyjirra, Warlpiri, Mudburra, Malngin, and Gurindji had an avoidance style; for others, such as Ngarinyin, Yawuru, and Nyikina, there is no evidence that there was ever an avoidance style.<sup>5</sup>

Avoidance styles in Kimberley languages have the same phonology (sounds) as everyday speech styles, but differ slightly in vocabulary and grammar. Avoidance speech was also characterised by differences in mode of delivery: usually it would be spoken quietly and slowly, and speakers might not face one another directly, but avert their gaze.

Both Bunuba and Gooniyandi have slightly over a hundred words specific to their avoidance styles, called *Gun.gunma* in Bunuba. Avoidance words often have a more general sense than their everyday counterparts, so that one avoidance term may correspond to a few different everyday terms. For instance, *jayirriminyi* covers *thangani* 'mouth, language, speech, story' and also *yingi* 'name' in *Gun.gunma*; *jalimanggurru* covers three distinct boomerang types, *baljarrangi* 'returning boomerang type', *gali* 'returning boomerang type', and *mandi* 'non-returning boomerang type used for hunting'. Avoidance words in both Bunuba and Gooniyandi tend to be longer than everyday words; there is also some tendency for them to have more consonant clusters (see §4.2 and §4.4) than everyday words. These features of word meaning and sound structure are characteristic of avoidance styles.

Only a fraction of the everyday vocabulary has corresponding terms in the avoidance style: absent are terms for those bodily functions and organs that one would not expect to be referred to in such sensitive interactions. There are also many inexplicable gaps: for instance, Gooniyandi avoidance style seems to have a distinct term for just one animal, the dog; for all other animals the everyday term is used. Thus avoidance style utterances in Bunuba and Gooniyandi did not involve replacement of every word by an avoidance style word. However, avoidance vocabularies were sufficiently comprehensive and general that any utterance could contain at least one distinctive item. In fact, just a single distinctive avoidance style item was normally employed even if the utterance could potentially contain more.

Avoidance styles of Kimberley Pama-Nyungan languages have even fewer words specific to them. Jaru, Wanyjirra, Mudburra, Malngin, Gurindji, and perhaps Walmajarri have a single characteristically avoidance style word, a verb. In Jaru it is *luwarn-*, which is identical with the ordinary verb meaning 'shoot'. This

verb replaces any verb of everyday speech, and is neutral in meaning. Thus compare (3.1) and (3.3) with the everyday equivalents (3.2) and (3.4).

- (3.1) *maliyi ngalu luwarnan murla-ngga* Jaru  
 mother:in:law they:are be:doing here-at  
 'Mother-in-law is sitting here.'
- (3.2) *ngawiyi nga nyinan murla-ngga* Jaru  
 father he:is be:sitting here-at  
 'Father sits here.'
- (3.3) *maliyi ngalu wulb luwarni* Jaru  
 mother:in:law they:were jump did  
 'Mother-in-law jumped.'
- (3.4) *ngawiyi nga wulb wandinya* Jaru  
 father he:was jump fell  
 'Father jumped.'

Warlpiri avoidance style has a slightly larger number of peculiar terms, including a few verbs.

Examples (3.1) and (3.3) bring out a grammatical feature characteristic of avoidance styles: use of plural form 'they' when referring to a single person, the individual in the avoidance relation. Often this is restricted to the closest avoidance relations, more distant, classificatory ones being denoted by the singular pronoun. Similarly, in addressing a close avoidance relative the second person plural 'you lot, you all' is normally used.<sup>6</sup>

There are other characteristic features of avoidance styles. In particular, avoidance style speech is typically vaguer than ordinary speech; it is rare for speakers to elaborate on vague avoidance utterances to make the meaning more precise. Another peculiarity of Gooniyandi avoidance style (and probably others) is that it is more common to qualify one's utterances with expressions of uncertainty than in ordinary speech.

### 3.3.2 *Secret styles*

A few secret speech styles have been reported for languages of the greater Kimberley region. The Pama-Nyungan language Warlpiri had a special secret style of speech that was taught to novices during their period of seclusion preceding initiation; it was used exclusively by initiated men during the performance of certain rituals. It has been described in a publication, but initiated Warlpiri men now prefer that nothing more be published about it.

In recent times – perhaps during the 1960s and early 1970s – a Pig Latin based on English was used in the west Kimberley by Aboriginal children in the Catholic

Colleges in Broome, Derby, Beagle Bay, Lombardina, and elsewhere. Below is a brief exchange invented by Lorna Cox, a fluent speaker:

- |                                   |                        |
|-----------------------------------|------------------------|
| (3.5) A: <i>onalei!</i>           | ‘Lorna!’               |
| B: <i>atwei?</i>                  | ‘What?’                |
| B: <i>atwei udei uyei antwei?</i> | ‘What do you want?’    |
| A: <i>ivgei imei animei.</i>      | ‘Give me money.’       |
| B: <i>i atgei othingnei.</i>      | ‘I’ve got none.’       |
| A: <i>ivgei imei utei oladei.</i> | ‘Give me two dollars.’ |
| B: <i>eitwei afei.</i>            | ‘After.’               |

This Pig Latin is the same as used in schools in other parts of Australia and elsewhere, and was presumably learnt through contact with children from Perth. Other Pig Latin varieties were perhaps local inventions, devised for greater secrecy by children without a traditional language.<sup>7</sup> In one variety words are shortened by deleting the last syllable or two, to which the meaningless form *-(r)igi* is added; thus, *naarigi* ‘nothing’, and *du(ri)gi* ‘do’. In yet another variety – possibly dating to the late 1970s and early 1980s – each word is again shortened, and *-iriji* attached to the end. In a similar Pig Latin, called Yeraka, in use among the Nyungar people in the south-west of Western Australia, *-raka*, *-waka*, or *-yaka* is added after the first syllable of a word (Douglas 1976).

### 3.4 Post-contact varieties

As mentioned in §2.4, four main new speech varieties came to be spoken by Kimberley Aborigines in the wake of European colonisation. Two were pidgins, that is, auxiliary forms of speech used between members of different speech communities in contact situations. Pidgins are not full languages, but rather restricted codes, used in restricted communicative domains; they are not the mother tongue of any speakers. One of these pidgins was English-based, most of its vocabulary coming from English; the vocabulary of the other was mainly from Malay. These varieties are discussed in §3.4.1 (Pidgin English) and §3.4.4 (Broome Pearling Lugger Pidgin). The other two new speech varieties are Kriol, which derives historically from Pidgin English, and a dialect of English, Aboriginal English. These are discussed in §3.4.2 and §3.4.3.

The three English-based varieties – Pidgin English, Kriol, and Aboriginal English – are not separated by clear boundaries; they merge into one another, and it is often uncertain as to which of them a stretch of speech belongs to. Indeed, this often may not even be a meaningful question. Nor are they consistently or clearly distinguished in descriptions. Pidgin English and Kriol in particular have often been grouped together under the former label, especially in works pre-dating 1980; only subsequently has it become common to recognise the difference between pidgins and creoles, and use the term Kriol (or creole).



### 3.4.1 *Pidgin English*

It seems that two main varieties of Pidgin English arose in the Kimberley: a coastal Pidgin English that was spoken in the port towns of Broome, Derby, and Wyndham; and an inland variety spoken mainly on cattle stations in the east Kimberley and on cattle and sheep stations in the west Kimberley. These varieties differed somewhat from one another in vocabulary.

The coastal Pidgin apparently arose in the early years of the pearling industry's relocation to Broome from the south to facilitate communication between Aborigines and whites. Pidginised forms of English were also in use between whites and the other ethnic groups employed in the pearling industry, including Malays, Japanese, and Koepangers, and doubtless the earlier Pacific pidgins (which would have been known by some) formed a foundation for the coastal variety. Many Aboriginal people working in the pearling industry and in the port towns spoke different and mutually unintelligible languages. Despite the high degree of multilingualism in traditional times (see also §3.5), multilingualism would have been largely restricted to languages in close geographical proximity. Aboriginal workers in the port towns came from diverse regions, and many communicative situations would have involved interactants who shared no traditional language. The pidgin thus came to be used amongst Aborigines.

The inland variety probably arose slightly later, in the late 1870s and 1880s, and was initially used mainly between Aborigines and white stockworkers and pastoralists on cattle and sheep stations. Most likely Pidgin English was brought into the region by cattlemen and their Aboriginal workers who droved cattle from Queensland, ultimately settling in the East Kimberley, and at about the same time by sheepmen from southern Western Australia, who settled mainly in the West Kimberley. The overlanders, Aboriginal and European, brought with them eastern and southern traditions of Pidgin English that they had used in interactions on the pastoral stations of the Northern Territory and Queensland on the one hand, and southern parts of Western Australia on the other. The varieties deriving from the two sources appear to have been substantially the same. Afghan cameleers, operating mainly from the ports of Derby and Wyndham, doubtless also contributed to the introduction and spread of Pidgin English in the Kimberley interior.

Pidgins are ancillary codes used in a limited variety of social contexts to communicate restricted ranges of meanings. As a consequence, compared with 'full' languages they have small and restricted vocabularies consisting primarily of words useful to the specific contact situations in which they arose and are used. The words were usually derived from the language of the colonisers, in the case of Kimberley Pidgin English mostly ultimately from English, although some words were apparently borrowed from Malay, and some came from the local traditional languages. Some words can even be traced back to the earliest Pidgin English known to have been spoken by Aborigines, Port Jackson pidgin; an example is *bogey* 'bathe, swim'.

Pidgins have simple grammars compared to natural languages like English and traditional Aboriginal languages, making them easier for adults to learn. Usually

words are structurally simple in the sense that they are not made up of smaller meaningful pieces such as prefixes (like *un-* in *un-usual*) and suffixes (like the *-s* of *dog-s*) (see Ch. 5 for more on grammar). In English and most Kimberley Aboriginal languages you refer to events that happened in the past by using a special form of the verb: in English usually by adding the suffix *-ed* (as in *finish-ed*, *walk-ed*, etc.); likewise in many Kimberley languages, for example, in Wangkajunga the ending *-rnu* on *jiki-rnu* 'drank' tells you that it happened before. In Pidgin English by contrast you refer to past events by putting the word *bin* before the verb – thus *bin gug* 'cooked', *bin gamab* 'arrived'.

Another illustration of the relative simplicity of Pidgin English is its way of indicating that more than one thing is being spoken about. In English you normally add *-s* to the noun, as in *boy-s*, *dog-s*, *book-s*, etc.; in many Kimberley languages you can (though you don't have to) add either a suffix specifying two things, or a different suffix specifying many. There is no corresponding way of making these meanings in Pidgin English. The noun by itself can be used for any number of things. If the speaker desires to specify the number of things they have to add a separate number word, for example, *dubala modiga* 'two cars'.

Another respect in which Pidgin English is grammatically simple is that there are no irregularities such as are common in English and Aboriginal languages. In English a number of verbs are irregular in the way they express past time: we say *sat* rather than *sitted*, *ate* not *eated*, *went* not *goed*, and so on. Such irregularities are also found in many Kimberley languages. But Pidgin English has none of these complications that make learning the languages more difficult: past time is always indicated in one and the same way, by the word *bin*.

Pidgins tend to show considerable variation between speakers, reflecting the fact that they are not the native languages of any of the speakers. Another consequence of their not being anyone's mother tongue is that pidgins tend to show certain characteristic features of the native languages of the speakers. An obvious respect in which Pidgin English is like traditional Aboriginal languages – and unlike English – is in its sounds. Words borrowed from English (which account for the majority of Pidgin English words) are adopted to the sound patterns of the traditional languages, which are quite similar across Kimberley languages (see Ch. 4). No Kimberley language has *s* or *sh* sounds, and English borrowings involving these sounds appear without them; usually they are replaced by *j* (pronounced as in *jam*). Thus, the Pidgin word for 'sit' is *jidán*, and for 'sugar' is *juga*. Kimberley languages do not distinguish between the sounds *p* and *b*, *t* and *d*, or *k* and *g*, and this is reflected in the lack of distinction between these sounds in Pidgin English: both *pin* and *bin* would be pronounced in the same way, as would be *tin* and *din*, and so forth.

Another sound characteristic of Pidgin English deriving from the traditional languages concerns the sounds that can follow one another. English allows a number of sequences of consonants (sounds like *s*, *f*, *b*, *m*, *r*, etc.; see Ch. 4) that are not allowed in Kimberley languages. Usually a vowel (a sound such as *i*, *a*, or *u*) separates them in the Pidgin English word. For example, the Pidgin English word

for *smoke* is *jumog* – the initial *s* has been replaced by *j* (as per the previous paragraph), and *u* inserted to break up the unacceptable sequence *jm*. (This does not happen to all sequences of consonants, only the ones that don't occur in traditional languages. So for 'cry' we have *gray* – many languages allow *g* followed by *r* at the beginning of a word.)

Doubtless Pidgin English changed over the decades, expanding both in terms of its words and in grammar, as contact between Aborigines and whites intensified and diversified (see Mühlhäusler and McGregor 1996: 104). The following examples come from works by two early Kimberley whites, Hamlet Cornish (one of the first pastoralists to establish a cattle station in the west Kimberley) and R.H. Pilmer (a policeman in the Kimberley in the 1890s).<sup>8</sup> Observe that neither shows evidence of the past tense marker *bin*, a feature that later writers almost always include in quoted utterances by Aborigines, perhaps suggesting that this was not present in the earliest varieties. In fact, there is no indication anywhere of whether the event was in the past, present, or future, this being inferred entirely from the circumstances. (Of course one must be cautious in drawing conclusions from quotations in published literature, for example, it is unlikely that the cited forms *scared* and *him* accurately represent the pronunciation of these words. Both writers use a combination of standard and non-standard English spelling. On the other hand, it seems unlikely that such a distinctive characteristic as *bin* would not have been represented by either observer if it was present.)

- (3.6) *'That Guirella fella, him plenty scared,' he laughed. 'Him make camp, then make another camp; then another camp. Him plenty scared fella all right.'... 'Blackfella go that way; gins go that way,' said Paddy, indicating opposite directions, then added triumphantly 'Guirella, him go walkabout one man.'*
- (3.7) *'Longada tellum me tellum longa BILIMUR "I killem easyfella. Him rushum blackfella camp longa yowada (horse). I hidum longa bush. He gallopum longa bush, he gettum gidgee (spear) longa back!"'*

By the 1930s, however, it appears that *bin* was in use, as illustrated in (3.8), from Porteus (1931: 94–5).<sup>9</sup> (Incidentally, Porteus himself uses *bin* incorrectly in referring to a hypothetical event.) Unfortunately, nothing is known for certain about the history of Pidgin English.

- (3.8) *I was rather interested to learn what danger Alido would undergo if he returned to his people. 'Suppose you go back?' I asked, 'other fellow bin spearem?' 'Go back all right,' was his reply, 'my uncle bin spearem me already.' With that he displayed the scar of a wound newly healed in his thigh. 'Them fella bin kill me with nulla nulla,' he added, showing scars also on his head, shoulders and arms, where he had evidently been severely clubbed.*

### 3.4.2 *Kriol*

Pidgin English was presumably spoken as a second (or third, fourth, even fifth) language by most Aborigines in the Kimberley interior until the 1940s or early 1950s; until then children learnt one or more traditional Aboriginal languages first. The traditional languages were the major vehicles of communication among Aboriginal people in the communities of workers and their relatives on the cattle stations, where the majority of Kimberley Aborigines lived. Pidgin was primarily used with whites, and with Aboriginal people from elsewhere, who did not speak the major languages of the community. But in the post-war years things began to change, and by the early 1950s children in the inland regions within the cattle belt had begun to learn Pidgin English as their first language. This variety came to be used more frequently than before, in circumstances where previously Aborigines had spoken to one another in traditional languages.

As already mentioned, pidgins are restricted auxiliary codes, used only in limited domains, and are not the mother tongues of the speakers. When they are acquired as first languages, and come to be used in more and more circumstances – not just in communication between groups, but within groups who formerly shared a traditional language – pidgins assume larger vocabularies, and become more grammatically complex. They become full languages. The new language that results when a pidgin becomes the first language of a community of speakers is called a CREOLE, and the process by which it comes into being is called creolisation. The creole language that arose in the Kimberley interior goes by the name of Kriol.

It is not known for certain why Pidgin English creolised. One possibility is that, as has been suggested for the Gurindji of the Kalkaringi and Daguragu communities just over the Northern Territory border:

the ‘wind of change’ that blew over the cattle stations as a result of the Second World War (Berndt and Berndt 1987) made people think of their old languages as associated with an old restricted and oppressive order, which they wanted to see change. The new language Kriol, on the other hand, was associated with freedom, wage labour, and hope of equality with whites, things that they had glimpsed in the life of Aborigines who went on droving expeditions and worked for the armed forces in that period.

(Dalton *et al.* 1995: 85)

Pidgin English apparently creolised at different times in different places. It seems to have creolised earliest in the east, and moved slowly to the west. Hudson (1983) suggests that Kriol arose later in Fitzroy Crossing than in Halls Creek, and that the critical event was the arrival in Fitzroy Crossing in 1955 of a truckload of children of mixed descent from Halls Creek who spoke Kriol. They had been brought to the Fitzroy Crossing mission following the closure of the Moola Bulla Ration Station. Whether or not this is how it really happened, the situation in

Fitzroy Crossing must have been ripe for the development of Kriol, and the arrival of this group of children may have served as a catalyst.<sup>10</sup>

These days Aboriginal children almost everywhere in the Kimberley learn Kriol as their first language. How this situation came about is not known for sure. It is not known whether Kriol in the coastal townships of Broome, Derby, and Wyndham creolised from the former coastal Pidgin English, or was learnt from visitors from the interior. Wherever it is spoken, however, it serves as a badge of identity, marking the speaker as an Aborigine. Amongst most native speakers it is positively valued as a marker of Aboriginality; it is, however, negatively valued by some, especially members of the older generation who are speakers of traditional languages.

Kriol comes in various dialectal forms, the main differences being in the words, which show a small amount of regional variation. Kriol also comes in different social varieties. These are usually conceived of in terms of a continuum between *BASILECTAL* Kriol, which most resembles the previous Pidgin English, and *ACROLECTAL* Kriol that is closest to English.

Basilectal Kriol is generally spoken amongst Aboriginal people, and is difficult for speakers of English to understand until they have had a fair amount of exposure to it. Indeed, white people hearing it for the first time usually think that they are hearing a traditional language! This is mainly because it uses sounds of the traditional languages, with a mode of delivery (intonation, speed, timing, etc.) characteristic of traditional languages.

Acrolectal Kriol is usually used in interactions with white people: speakers use the variety that is most similar to English in order to convey their meaning most efficiently to a white addressee. The sounds and mode of delivery are closer to English; sounds that do not exist in the basilectal variety such as *s* and *sh* sounds, the distinction between *p* and *b*, and so forth, are used in acrolectal Kriol. White people usually respond in either Standard Australian English, or in a variety that they think is Pidgin English (or Kriol), according to widespread ideas amongst native speakers of English as to what constitutes ‘pidgin English’ – though this actually bears little relation to the varieties spoken by Aboriginal people. In particular, as we will soon see, the meanings of Kriol words often differ significantly from their English counterparts, resulting in frequent instances of miscommunication.

In between basilectal and acrolectal Kriol is scope for considerable variation, and speakers of Kriol differ in terms of the ranges they control. Some might have control of the entire range of variation; others may speak varieties that are closer to the basilectal end, and not control the ‘high’ acrolect; and others may speak varieties closer to the acrolectal end.

Among the characteristic features of the varieties that are closer to the basilectal end of the continuum are certain grammatical features characteristic of traditional languages. For example, except in the most acrolectal varieties the pronoun system (words for *I*, *you*, etc.) is more like what is found in many traditional languages than English (see Table 6.4 in §6.1.1).

As mentioned earlier, there are often differences in the meanings of Kriol words and the English words from which they derive. In some cases – especially in the basilectal varieties – the meanings of the words are more like the meanings of the corresponding words in traditional languages (see also §9.1). To give one example, in most Kimberley languages the word for ‘hit’ also means ‘kill’; this is also a feature of (basilectal) Kriol *gilim* ~ *kilim*, as it was of the earlier Pidgin English (see (3.8)).

A number of grammatical and meaning properties of Kriol are peculiar to it, and differ from both traditional languages and English. For instance, transitive verbs (i.e. verbs like *hit* that take both a subject (doer) and object (patient, done-to)) in Kriol normally have the ending *-im* (sometimes *-it*), deriving from English *him* (respectively *it*), as in *kilim* ‘hit, kill’ and *gibit* ‘give’. ((3.7) suggests the presence of this ending in the Pidgin English of the 1890s – although it is over-used in this passage, occurring on all verbs. It is also present on one of the transitive verbs in (3.8).) Neither traditional Kimberley languages nor English have distinctive markers of transitive verbs. And Kriol lacks the rich set of kin-terms characteristic of Aboriginal languages (see §3.2).

To illustrate Kriol, and some differences from and similarities to English, consider the following short text, from Hudson (1983: 174).

- (3.9) *gardiya bin pikimap mipala en teik mipala langa mishin*  
 white:person past pick:up us and take us to mission  
*longtaim en deya wen mipala bin lil-il kid mipala*  
 long:time and there when we past little-little children we  
*yusdu tokin Walmajarri. Samtaim gardiya bin gib mipala*  
 used:to talk Walmajarri sometimes white:person past give us  
*haiding fo tokin Walmajarri. From deya mela bin lisining sampala*  
 hiding for talk Walmajarri from there we past listen some  
*kid bin tokin Kriol. Mela bin lisining en pikimap lilbit.*  
 children past talk Kriol we past listen and pick:up little

Kriol

‘White people picked us up and took us to the mission a long time ago, and there, when we were little children we used to speak Walmajarri. Sometimes the white people would give us a hiding for speaking Walmajarri. Later, we heard some children speaking Kriol. We listened to it, and picked up a little of it.’

A notable feature displayed even in this short text is the variability in Kriol. Notice that the transitive marker *-im* is present in some transitive verbs (*pikimap*), absent from others (*gib*, *teik*). The word for ‘we’ (which excludes the hearer, i.e. ‘we, but not you’) is first *mipela*, then *mela*.

### 3.4.3 *Aboriginal English*

Whereas Kriol is a distinct language of its own, a third post-contact variety, referred to as Aboriginal English is really a dialect of English, and is mutually intelligible with English. Aboriginal English differs from Standard Australian English in a few minor ways, including some characteristic features of pronunciation and a small number of distinctive words and grammatical patterns, some of which come from traditional Aboriginal languages.

In places such as Beagle Bay Mission, the children were kept together in dormitories for many years, and strongly encouraged to speak Standard Australian English, which they were also taught at school. Most likely English arose in the context of the mission and school. Probably it first arose early in the twentieth century among school children who came from widely diverse geographical and social origins – part Aboriginal children from all over the Kimberley were sent to school there during the early 1900s. Perhaps some children had knowledge of Pidgin English; but there is no evidence that Pidgin English ever creolised in Beagle Bay. Rather, Standard Australian English apparently filled a similar role in Beagle Bay to Kriol in inland places such as Fitzroy Crossing, facilitating communication amongst children from different language backgrounds. As the children grew into adults, English came to be the usual language of communication within the mission community.

In the Kimberley interior it is uncertain how Aboriginal English developed. Perhaps it developed from Kriol as speakers of that language experienced more exposure with Standard Australian English in schools and increasingly diverse interactions with white people. In contrast with the situation in Beagle Bay, however, Aboriginal English was strongly associated with communication with whites, and it does not seem that the language is extending significantly into intra-group communicative situations, and threatening Kriol.

Kimberley Aboriginal English – including varieties spoken in places like Beagle Bay – shows various non-standard features, which are used alongside standard forms. For example, the verb *be* is frequently omitted, as in *this a big wave*, and *his name Peter*; *bin* is often used to indicate an event happened in the past, as in *Jim bin go to Derby*; the English ending *-s* is frequently omitted from plural nouns; and *'e got* (from *he got*) is often used to express existence, as in *'e got plenty windmill there*. Some (though not all) of these non-standard forms are shared with Kriol and Pidgin English; this does not necessarily demonstrate that they actually come from either language, since many are features of other non-standard varieties of English. Words from local traditional languages are also frequently used in Aboriginal English, words such as *bulumani* 'cattle, cow, bull', *limba* 'policeman' (in Fitzroy Crossing languages) and *linyju* 'policeman' (in Derby and Broome languages).

To give some idea of the nature of Aboriginal English, to illustrate some differences from Standard Australian English, and to demonstrate its mutual intelligibility with standard English, we give two extended examples, from Kaldor and Malcolm



(1985: 235). The first (3.10), comes from a nine-year-old girl in the East Kimberley; the second (3.11), is from an eight-year-old girl from the West Kimberley:

- (3.10) *Dis uncle Dan when 'e came back from dis pub he was just getting at dis mob place just next to the hotel there... what now?... dis one girl chased 'im back an... 'e was running an' when 'e bin just get down dere la reserve... that girl bin singing out 'Dan! Dan!' an' 'Dan bin look back an' fin' that girl got no face an' 'e jus' run an' all the dog bin barking at that spirit then!*
- (3.11) *You know my granny... 'e stay with Theresa an' 'e name Edna an' firs' when my Mummy bin get me you know when I's a little baby, my mummy bin wan' to call me Sandra you know... wanna call me like that an' granny Edna 'e did say 'Oh, give name Edna like me!'... granny say like that an' granny had to get wild an' 'e come in growling Mummy, Daddy for me... to be Edna.*

It has been suggested that Aboriginal English has certain characteristics of style and communicative use more in common with traditional languages than English as spoken by the dominant Australian society. For instance, the strategies speakers use in requesting information from their interlocutors are more like the strategies used in traditional languages than in English (Kaldor and Malcolm 1985: 236). And according to Ian Malcolm there is a particular idiom of Kimberley Aboriginal English used in jesting. Malcolm (1980–1982: 60) gives a number of examples, including the following from Victor Hunter of Derby:

- (3.12) A: *She's a proper 6/4 that one* (describing a female in terms of a desirable card combination)  
 B: *Yeah, and 7 and 3 too!*  
 A: *You fitem self properly!* ('You dress up properly.')  
 B: *Munga white man!* ('Just like a white man.')

To wind up the discussion of this and the previous two subsections it is worth reiterating that it is not always easy to distinguish between the various English-based varieties, which merge into one another both in terms of their formal properties and in usage.

### 3.4.4 *Broome Pearling Lugger Pidgin*

With the advent of pearling Malay came into use as a contact language. A considerable number of Malays were employed in the industry in the first two decades of the twentieth century in Broome, and Malay was dominant on the pearling luggers. During these decades a pidginised Malay – Broome Pearling



Lugger Pidgin – became established, and continued to be used even after the Malay workers were largely replaced by Japanese. This pidgin was used mainly in communication between workers on the pearling luggers, Japanese, Malays, Koepangers, Hakka Chinese, Filipinos, a small number of Koreans, and local Aborigines, mainly Bardi, but also some Nyulnyul, Jabirrabirr, Jukun, Yawuru, and Karajarri. Broome Pearling Lugger Pidgin was by and large restricted to the labour setting aboard pearling luggers, though it would have been sometimes spoken in the streets of Broome when Asians and Aborigines from diverse backgrounds interacted. Thus Broome Pearling Lugger Pidgin complemented the coastal Pidgin English, which was used primarily between Aborigines (and Asians) and whites, and primarily on shore.

Broome Pearling Lugger Pidgin is a simplified form of Malay; most of its words are borrowed from Malay. Some words and grammatical features are, however, borrowed from Dampier Land languages and Japanese, as well as English, the latter presumably via Pidgin English. The following example illustrates the diverse origins of words in the Pidgin (the third gloss line indicates the source language of each word):

- (3.13) *poorr kotor -ya tera baiya*  
 pearl dirty -be not buyer  
 English Malay -Japanese Malay English  
 ‘The pearl is clouded. It won’t sell.’ Broome Pearling Lugger Pidgin

Among the many interesting features of Broome Pearling Lugger Pidgin we single out one, the question marker *-kaa*. This resembles both the question/indefinite particle *-ka* in Japanese, and the question focus marker *-kah* of Malay. Like the corresponding Malay form, Broome Pearling Lugger Pidgin *-kaa* marks only yes/no questions; it is not used with questions of identity (*who, what, where, when*). However, *-kaa* can be used to express indefiniteness, as illustrated in (3.14). In this regard it is similar to the Japanese *-ka*, and to question markers in some traditional Kimberley languages – for instance to the Gooniyandi *-ma*; Malay *-kah*, is not used in this way.

- (3.14) *chirikurok -kaa hokurok -kaa peke kriki*  
 three:o’clock -question four:o’clock -question go creek  
 English Japanese English Japanese Kupang Malay English  
 ‘We will enter the creek (for the supply of water) at three or four o’clock.’ Broome Pearling Lugger Pidgin

The question marker *-kaa* is also used to mark *if*-assumptions in complex sentences, as in (3.15); this use is found for the corresponding particle in neither Malay nor Japanese.

- (3.15) *ujan*                      *banyaa*   *ratang*   *-kaa*              *tera*              *karaja*  
          rain                      much      come      -question      not              work  
          Kupang Malay   Malay      Malay      Japanese      Malay      Malay  
          *dekko*      *angkaa*  
          drop      anchor  
          English      English                      Broome Pearling Lugger Pidgin  
          ‘If the rain gets heavier, we will stop working and drop the anchor.’

Over time Broome Pearling Lugger Pidgin developed from a Kupang-like Malay to become progressively closer to Standard Bahasa Indonesian, especially after 1960. According to Komei Hosokawa, who made a study of the pidgin in the mid-1980s:

Although PLP [Broome Pearling Lugger Pidgin] is no longer in active use, some of the remnants (fossilised words and phrases) are often used, not merely by the Asians and Aborigines who settled in the town of Broome, but also by the younger generations of Asian-Aboriginals as a sort of in-group jargon. It may be one of the sociolinguistic devices with which they express their ethnic identity.

(Hosokawa 1987: 294)

### 3.5 Multilingualism, language choice, and code switching

It has been mentioned in various places in the discussion so far that in traditional times Aboriginal people of the Kimberley were typically multilingual. A single person might speak three, four, five, or more languages fluently, depending on their parents (marriage outside of groups being common, children not infrequently had parents whose mother tongues were different), linguistic facility, range of contacts with members of other groups, and so forth.<sup>11</sup> Furthermore, a high value was usually placed on multilingualism, which was widely considered a virtue.

In both traditional and modern speech communities most individuals speak more than one language, and often two or more languages will be shared by the participants in a speech interaction. Speakers have to decide which language to use in such circumstances. If one wants to communicate successfully with another person or persons, they will have to choose a language that is shared by all the targeted individuals. Conversely, if one wants to maintain secrecy, or exclude someone from the conversation, use of a language that only the addressee, and no one else in earshot, can understand would be ideal, if available. But if, as is often the case, the interactants in a speech situation share more than one language, the question arises as to whether there is any reason why one rather than another of them would be spoken. Most linguists would agree that the choice of language is not normally completely arbitrary and unprincipled, while admitting that it is not

completely predictable either. In any event, speakers normally have some motivation for speaking a particular language, and for shifting from one to another.

We cannot now know what the situation was like in traditional times, prior to contact. It has been suggested by some that in large groups of people that gathered together for ceremonial purposes a person would usually speak in their own language, and expect a reply in the addressee's language (as described in note 11 for Dampier Land languages). The extent to which such linguistic purity was maintained in practice, however, is anyone's guess and personally I suspect it unlikely to have been adhered to very strongly. In any case, circumstances must have regularly arisen in which choices among languages were available to interactants. As an example consider the situation in which a man or woman resides with their spouse's group, a community speaking a different language from their own. Assuming that all parties have speaking control of both languages it seems unreasonable to expect that in the multifarious social circumstances that must have arisen interactants could not choose to speak one or the other language, that it was preordained which language would be spoken.

Language choice need not, of course, be made once and for all by each individual at the beginning of a conversation: the language could well be changed from one utterance to the next, even within a single turn of speaking. In extreme cases the language can change from word to word, so that a single utterance is not necessarily linguistically 'pure' in the sense that every word and grammatical feature of it belongs to one and the same language. In multilingual settings such as traditional Aboriginal Australia it seems likely that such switching among language varieties – referred to as CODE SWITCHING – was the order of the day, that languages were not rigidly separated in their domains of usage. In this section we make some remarks on possible motivations for language choice and code switching; we ignore psychological 'performance' factors such as speech errors, momentary inattention or forgetfulness, and the like.

Few systematic and depth studies have been made of either language choice or code switching in modern Kimberley Aboriginal communities, although many linguists have reported anecdotal observations. The best study to date of code switching in a community within the wider Kimberley region is Patrick McConvell's study of code switching in an interactive event in which a small group of men from Daguragu (Northern Territory) are butchering a bullock (McConvell 1985). The men speak 'standard' Gurindji, as well as a local variety such as Wanyjirra, and Kriol. Within this interaction the men switch back and forth between the local variety, standard Gurindji, and Kriol. They do not do this at random, however. McConvell shows that the choice depends to a large extent on which social group(s) the speaker wishes to stress membership of at different points of the unfolding events. That is to say, the speakers identify themselves as members of one or another social group through choice of language variety. Choice of the local variety Wanyjirra highlights the interlocutors' membership of a small local group: in this way a speaker can declare their social proximity to the addressees, as co-members of a very small speech community. By choosing this

language, a speaker might pave the way for request of a favour. On the other hand, choice of Kriol would serve to weaken the alliances binding the interactants, indicating no more than that they are all members of the large Kriol speech community. This choice of language could be appropriate for a denial of a favour, or for stressing wider community needs over the needs of an individual; the speaker smooths the way for such a denial by distancing themselves from the addressee.

McConvell (1985) shows in detail how speakers redefine their interactive positions along these dimensions throughout the butchering event, in order to further their social-interactive purposes.<sup>12</sup> Illustration is provided by (3.16), a short interaction of three speech turns of two of the butchers. Here the vertical line | indicates switch of language; capitals, Kriol words; underlining, words that are specifically Standard Eastern Gurindji; double underlining, specifically Wanyjirra forms; and plain italics indicates words common to Gurindji and Wanyjirra.

- (3.16) G: *MINE* | *pampirla* | *THERE AGAIN, OLD MAN* | *pampirla*,  
shoulder shoulder  
waku nyarra? | *kankurla-pala-nginyi* *ngu-yi-n* | *kuma-wu*  
which way above-across-from will-me-you cut-will  
J: | *laja* | *-ma* *ngartji* *ma-ni* *W-rlu*  
shoulder -topic choose get-did W-by  
G: | *nganinga* | *-ma*  
my -topic  
G: ‘*MINE* | the shoulder | *THERE AGAIN, OLD MAN* | the shoulder,  
or what? | From across the top you have to for me | to cut it.’  
J: | ‘the shoulder | W- picked it out.’  
G: | ‘mine | (it is).’

McConvell comments on the code switching in this interaction as follows:

G begins in Kriol, but switches to Wanyjirra to emphasise the close local bond between himself and J, in relation to J's giving him the shoulder, and the cutting action which will provide G with the shoulder. J however responds by shifting back to the wider community arena by using SEG [Standard Eastern Gurindji], and emphasising the rights of a non-Wanyjirra community member. G reasserts his claim within the narrower arena by using the W [Wanyjirra] term for 'mine'.

(McConvell 1985: 111)

### 3.6 Language shift and endangerment

The discussion in §3.4 indicates that the past hundred and twenty or so years of intensive contact with whites, and to a lesser extent with other non-indigenous groups such as Macassans, Indonesians, Chinese, Japanese, and Afghans, have seen very significant changes in speech habits, and language repertoires of

Aboriginal people. Equally drastic have been changes to the human geography of the region, and to the socio-cultural fabric of the lives of the indigenous peoples. During this period a number of languages have gone out of regular use; others, although still used, have lost ground to English or English-based post-contact varieties. In terms of their state of 'health' or viability, Kimberley languages can be roughly divided into four categories which are as follows:<sup>13</sup>

- (a) **HEALTHY LANGUAGES.** These are spoken by reasonably large numbers of speakers – a few hundred or more – and are being passed on to children; they are used in a wide range of different environments. A few Pama-Nyungan languages fall into the healthy category, at least in some communities (not necessarily in the Kimberley): Walmajarri, Jaru (in Yaruman (Ringers Soak)), Kukatja (Wirrimanu (Balgo)), and Warlpiri (in Northern Territory communities such as Lajamanu); so also do the post-contact languages Kriol and Aboriginal English. No non-Pama-Nyungan Kimberley language can be called healthy in this sense, although the Daly River language Murrinh-Patha, spoken by a small number of Aboriginal people in Kununurra, is healthy in its home community, Wadeye (Port Keats).
- (b) **WEAKENING LANGUAGES.** These are spoken fluently by older people from middle age upwards, but are not transmitted fully to children, who do not learn the language as their mother tongue. Such languages might have from about ten to a hundred or more full speakers; in addition, there would be a number of people who can speak the language partially, and others, especially from the younger generations, who understand it to some extent when it is spoken to them, though they do not themselves speak it. A fair number of traditional Kimberley Aboriginal languages belong to this category: Bunuba, Gooniyandi, Bardi, Nyikina, Yawuru, Ngarinyin, Wunambal, Kija, Karajarri, Mangala, Nyangumarta, and possibly Miriwoong, Yulparija, Gurindji, and Wangkajunga.
- (c) **DYING LANGUAGES.** These languages have just a handful of speakers, all of who come from the oldest living generation. There is likely to be also part speakers of these languages, as well as a number of persons who understand the language, or know some words; these would be adults – children typically have virtually no knowledge of the language, except perhaps for a few words. Among the dying languages of the Kimberley are Warrwa, Gajirrabeng, Worrorra, Gunin/Kwini, Miwa, and Gambera; the post-contact pidgins Pidgin English and Broome Pearling Lugger Pidgin also belong to the ranks of dying varieties.
- (d) **DEAD LANGUAGES.** These are no longer spoken fluently by anyone, though some older people may remember a number of words and phrases, and might even be able to construct simple sentences. Kimberley languages that fall into this category include Nyulnyul, Jabirrabirri, Nimanburru, Yawijibaya, Umiida, Unggumi, and Doolboong.

Some now dead languages may have gone through stages of weakening and dying in previous times, and some dying languages may previously have gone

through a weakening stage, and may well in the future become dead languages. However, the four categories (a)–(d) need not necessarily represent stages along a path from viable to dead. In some cases entire communities of speakers were decimated in massacres or as a result of introduced diseases, and their languages may have passed directly from (a) to (d), or at least have skipped (b).

Usually, however, the historical situations were more complex, and very few speech communities were completely exterminated within a single generation. In most cases the present state of health of a language is the result of changes in habits of language use and choice over the post-contact period; the demographic and other socio-cultural changes form of course an important backdrop to these shifts, and cannot be ignored. But the reasons why languages become endangered must be seen, albeit not exclusively, within the wider framework of other languages belonging to the linguistic repertoires of individuals and communities, and shifts in their use – that is to say, on the speech habits of community members. This is why we speak of LANGUAGE SHIFT.

We now discuss one case of language shift, to illustrate factors that may be relevant to changes in patterns of language use. This is the case of recently dead Nyulnyul, and the Beagle Bay community in which the language was once spoken. This case is an appropriate one for our purposes since there is a fairly considerable body of information on the language and the history of the community, going back to the last decade of the nineteenth century, to within two decades of first intensive contact with outsiders. Of course, some of the characteristics of the Nyulnyul situation were unique to it; but there are also general features that are more widely applicable.



*Plate 3.3* Beagle Bay Mission centenary celebrations, 1990 (© William McGregor).

As far as we can tell, the traditional pre-contact situation was that Nyulnyul was spoken by probably a few hundred Nyulnyul people, who inhabited a small tract of country towards the tip of the Dampier Land peninsula extending from the southern shores of Beagle Bay to Pender Bay in the north, and across the peninsula. They had many close social contacts with the neighbouring Jabirrjabirr, Nimanburru, and Bardi peoples, and occasional and less intensive ritual contacts with southerners such as the Jukun, Yawuru, and Karajarri. Doubtless most understood the languages of the nearby peoples. It is not known to what extent Nyulnyul people spoke distant mutually unintelligible languages like Jukun, Yawuru, and Karajarri; we can only guess that this was the exception rather than the rule, and that (as pointed out earlier) multilingualism as it is usually understood was probably not as common as elsewhere in Australia.

The present situation for Nyulnyul can be summarised as follows. No full speaker of the language survives, the last speaker having died in 1999, aged almost ninety. There are, however, a number of part speakers and rememberers, who live mainly in Broome and Derby; their usual language of conversation is Aboriginal English, though many speak at least some Bardi. Children in Beagle Bay community know a number of Nyulnyul words for the common flora and fauna of the area; but apparently little else. They speak Aboriginal English and/or Kriol as their mother tongue and normal language of communication. The main language spoken in the Beagle Bay community is Aboriginal English; Bardi is also spoken by some community members.

Extended speech solely or even primarily in Nyulnyul never occurs these days. The language is used almost exclusively as a badge of group identity by Nyulnyul people on the one hand, and Beagle Bay residents on the other, who include occasional Nyulnyul words in their predominantly Aboriginal English speech.

The following factors can be singled out as significant in the history of language shift among the Nyulnyul people, and in the Beagle Bay community:

- (i) the change from a nomadic hunting-gathering lifestyle in which contact with outsiders (who spoke mutually intelligible languages) was limited, to the sedentary lifestyle of the mission (established 1890), characterised by frequent and protracted contact with outsiders who spoke mutually unintelligible languages;
- (ii) the significant reduction in the size of the Nyulnyul speech community by the killings, overwork, and diseases accompanying white invasion and colonisation;
- (iii) disruptions to the Nyulnyul speech community resulting from Beagle Bay being used first as a 'half-caste dumping ground' in the early years of the twentieth century, then (from the 1930s) for lepers from all over the Kimberley, and finally (during the Second World War) for Aboriginal evacuees from Broome;
- (iv) frequent intermarriage between Nyulnyul and part Aborigines from elsewhere in the Kimberley, resulting in less exposure to Nyulnyul in the home;



- (v) disruptions to the Nyulnyul speech community due to an increasing number of Beagle Bay residents (including Nyulnyul speakers) taking up jobs in Broome and further afield; and
- (vi) the dormitory system that was implemented in the Beagle Bay mission, in which Nyulnyul children were isolated from their parents from the age of six, put into close contact with outsiders, and prohibited or discouraged from speaking their own language.

The result of these changes to the external circumstances of the language was a small and fragmented speech community. Communicative events in which Nyulnyul was the dominant language spoken reduced in size and number, and over time speakers became progressively more isolated from one another, so that ultimately there were few opportunities to use the language. Simultaneously, speakers became members of large communication networks involving speakers of different languages, leading to the situation in which the language was used in a diminishing fraction of the interactive contexts community members daily participated in. Thus the shift to speaking Aboriginal English in more and more contexts.

These material changes were not the only important ones in the story of language shift amongst the Nyulnyul. An equally important factor is the symbolic values of the two main languages involved in the language shift scenario. It appears that early in the twentieth century English began to acquire an important symbolic value by virtue of its association with the mission, the missionaries, pearlers, and ultimately the world beyond the confines of Beagle Bay. Thus it became associated with power, and knowledge of the modern world, much in the way suggested for Kriol some decades later on the cattle stations (see §3.4.2). This association was doubtless reinforced by the Pallottine missionaries, who encouraged English to the exclusion of other languages in the mission and school: they regarded its acquisition as a necessary prerequisite of assimilation, and integration into the wider Australian society. It is inconceivable that their opinion was not conveyed to the children in their care, and thence to their parents.

At the same time Nyulnyul did not – and could not – remain symbolically the language it had been in pre-contact times, prior to the advent of the missions, when it served to manifest a separate identity for the Nyulnyul people in contrast with the Bardi, Nimanburru, and Jabirjabirr. As English came to signify the modern world, Nyulnyul would have correspondingly signified traditional life and beliefs which were fast disappearing, partly as a result of the deliberate decision of the older people of the time to give them up and adopt Christianity.

It should not be presumed from the above discussion that the shift to speaking English or Kriol in Kimberley Aboriginal communities is inevitable, irreversible, or one-way. Especially in recent years there have been some signs of interruption in the processes of shift towards Kriol and/or Aboriginal English, and signs that in some places traditional languages are gaining some ground, or at least not losing ground. My own observation of Gooniyandi use over the past two decades seems



to indicate that there has been little if any discernible decrease in its use by young children. And Dalton *et al.* (1995: 94) remark that 'Knowledge of Gurindji has not declined among children in the past twenty years and may even have increased slightly'. There are, however, differences in the Gurindji spoken by young people and that of the old people (see §13.3.2).

Finally, it should be remarked that shifts in language use have not always been in favour of post-contact varieties. In various towns and cattle stations in the Kimberley traditional languages became LINGUA FRANCA, that is, linguistic varieties acquired in adulthood as second or later languages that serve as a means of communication between speakers of different mother tongues. In the Fitzroy Crossing region Walmajarri came for a time to be a LINGUA FRANCA, and today is spoken by almost all Aborigines over the age of fifty, irrespective of their linguistic affiliation. (By contrast, few Walmajarri people have fluency in any non-Pama-Nyungan language of the traditional inhabitants of the Fitzroy Crossing region.) For reasons that are not entirely clear, probably beginning in the 1930s, the traditional inhabitants of the Fitzroy River region – the Bunuba, Gooniyandi, and Nyikina – came to be increasingly absorbed into the Walmajarri cultural world, and as a consequence their language came to dominate over the traditional languages amongst adults, and to be used as the main language amongst the culturally mixed groups of Aborigines working on the cattle stations, and later living in Fitzroy Crossing. Other languages that became LINGUA FRANCA in the greater Kimberley region were Gurindji in the large Vestey's cattle stations of the Northern Territory, and Murrinh-Patha in the Roman Catholic Mission in Wadeye (Port Keats).

### Further reading

Good introductions to the traditional culture of Australian Aborigines are Elkin (1938/1974), Berndt and Berndt (1964/1992), and Maddock (1972/1974); Berndt and Berndt (1979), Love (1936), and Kaberry (1939) also make good reading. Heath *et al.* (1982) is a collection of papers dealing with aspects of language relevant to kinship, including contributions on kin systems and terminology, and special speech styles. Other works dealing with avoidance styles include Alpher (1993), Haviland (1978, 1979), and McGregor (1989a).

General works on pidgins and creoles are Mühlhäusler (1997), Holm (1988, 1989). Mühlhäusler and McGregor (1996) discusses post-contact languages in Western Australia; Simpson (2000) explores the role of Afghan cameleers in the spread of Pidgin English. For references on post-contact varieties see *Languages and sources* at the end of the book.

A good overview of issues relating to the sociolinguistics of multilingualism is provided by Romaine (2001). On language choice and code switching in Australian language communities see Elwell (1977), McConvell (1985, 1988). Dorian (1989), Brenzinger (1992), Matsumura (1998), and Grenoble and Whaley (1998) are good recent collections of articles on language shift and endangerment; Tsunoda (forthcoming-b) is also recommended. Dealing specifically with Aboriginal contexts are Donaldson (1985), McConvell (1991), McGregor (2003), Schmidt (1985a,b, 1990).

## PHONETICS AND PHONOLOGY

### 4.1 Types of sounds

In all human languages most speech sounds are produced by pushing air out of the lungs, through the GLOTTIS or voice box, and then through either the mouth or the nose. The glottis contains the vocal cords or folds, which if held together not too tightly as the air passes through them, will vibrate, giving rise to voicing. These vibrations can be felt by holding your Adam's apple between your thumb and first finger, and making the sounds *mm* and *aa*. Speech sounds that are accompanied by voicing are said to be VOICED; all others are VOICELESS. The mouth and nose cavities also have an important role: by modifying the stream of air passing through in various ways, production of a range of different sounds is possible.

The sounds of human languages fall into two main groups: CONSONANTS and VOWELS. Consonants are made with a noticeable obstruction of the airstream between the glottis and the outside air. For vowels, by contrast, the air passes unimpeded through the mouth. Compare, for instance, the two sounds in the English word *fee*. The first, the consonant *f*, is made with the upper teeth touching the bottom lip, while air is forced through this narrow opening, thereby producing audible friction. The second, the vowel written *ee*, does not involve obstruction anywhere in the mouth, and the sound comes out 'purely'. You will also notice that the vocal cords are vibrating for the vowel *ee*, but not for the consonant *f*. Vowels are normally voiced.

Consonants are classified according to the MANNER by which they are produced, and the PLACE of the obstruction. The main manners of articulation are as follows (there are many others, which we do not describe here since they are more 'exotic'):

STOPS, which involve a complete blockage of the airstream at some point in the mouth, as in the English sounds *p*, *b*, *k*, *g*, *t*, and *d*;

FRICATIVES, which involve a partial blockage of the airstream at some point in the mouth, resulting in a sound with friction, as in the English sounds *f*, *v*, *s*, *z*, etc.;

NASALS, in which there is a complete blockage of the airstream somewhere in the mouth, but air is permitted to escape through the nose, as in *n* and *m*;

LATERALS, or *l*-sounds, for which air escapes around the sides of the tongue at the point of obstruction;

RHOTICS, or *r*-sounds, including the continuant *r*-sound of Australian English and the rolled *r* of Scottish English (technically a tap or trill);

GLIDES, also called semivowels or approximants, are the consonants that are most like vowels, and involve least obstruction in the mouth; English has two glides, *w* and *y*.

In the production of most consonants obstruction occurs at a single point in the vocal tract – the organs and chambers used to produce speech sounds (see Figure 4.1) – when a moveable part is brought towards a stationary part. This gives the place of articulation of the consonant. The main places of articulation are BILABIAL, involving both lips (as in *b* and *p*); LABIO-DENTAL, involving the upper teeth and the lower lip (as in *f* and *v* in English); INTERDENTAL, where the tongue protrudes between the teeth (as in *th*); DENTAL, where the tongue touches the upper teeth (as in the French *t*); ALVEOLAR, where the tongue touches the alveolar ridge (as in the English *t*); PALATAL, where the tongue touches the hard palate; and VELAR, where the back of the tongue touches the soft palate (as in English *k* and *g*). The glottis can also be a place of articulation, as in the glottal stop, which can be heard in the Cockney pronunciation of *t* in words like *butter*.

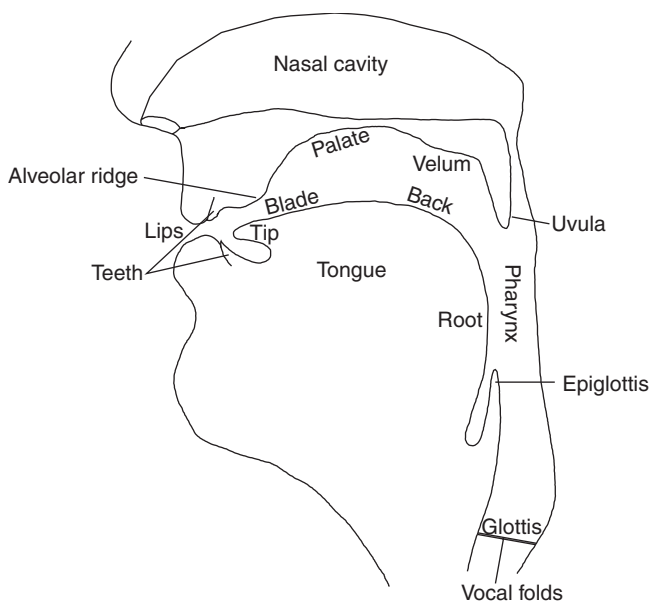


Figure 4.1 The vocal tract.

Vowels have a resonant sound, the quality of which depends on the size and shape of the chamber the air vibrates in. This is determined by the shape and position of the tongue and lips. The lips may be rounded and slightly protruded, as in the pronunciation of the vowel written *oo* in *pool*; alternatively they may be spread, as in the pronunciation of the *ee* vowel in *beet* (try exaggerated pronunciations of the words). For our purposes, however, the most important factor is the position of the tongue in the mouth, specifically, the location of its highest point. This provides a classification of vowel sounds. Broadly speaking, the highest point of the tongue may be towards the front of the mouth, in the middle, or towards the back of the mouth. Simultaneously, it may be high in the mouth (in the sense that if it were any higher, obstruction would occur, and we would have a consonant), low in the mouth, or somewhere in between. Figure 4.2 indicates the approximate position of the tongue for the two vowels discussed earlier, *ee* and *oo*.

A tabular representation of vowels is shown in Figure 4.3, which uses the phonetic symbols of the International Phonetic Alphabet (IPA) (International

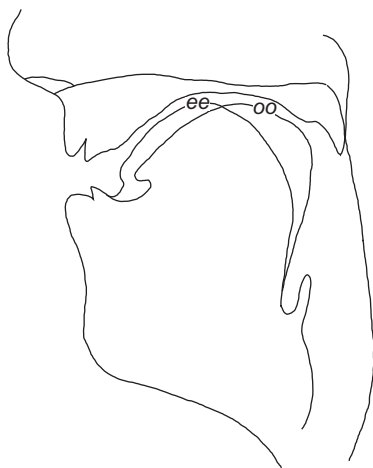


Figure 4.2 Approximate tongue position for two English vowels.

	front	central	back
high	i ɪ	ɪ	u
	e		o
mid	ɛ	ə	ɔ
	æ	ɐ	
low	a		ɑ

Figure 4.3 Basic vowel chart.

Phonetic Association 1999). This shows graphically how the main vowels are related to one another. The place of the letter representing the vowel indicates the approximate position of the highest point of the tongue in the mouth: thus, for [i] it is high up and towards the centre of the mouth; for [o] it is mid in height, and towards the back of the mouth.

Not all differences in pronunciation give rise to different words. For instance, Australian English has a continuant *r* sound (written ɹ in IPA), whilst Scottish English has a rolled *r* (IPA r). However you say it in an English word (e.g. *tomorrow*) makes no difference to the word itself – it remains the same. In almost all Australian Aboriginal languages, by contrast, the difference between the two *r* sounds is important, and gives rise to different words. In Worrorra, for instance, the word *karri* (with rolled *r*) means ‘sorry’, whereas *kari* (with continuant ɹ) means ‘paddle’. When sounds are distinct in this way – when they can make different words in a language – they are said to be different PHONEMES. The study of the phonemes of languages is called phonology; the study of the sounds themselves – including how they are made and how they are perceived – is called phonetics. When speaking of phonemes, it is usual to use slashes (/ /) around the letters; when speaking of the sounds themselves, square brackets ([ ]) are put around the letters. Thus we speak of two phonemes /r/ and /rr/ in Worrorra, and a single phoneme /r/ in English, which has alternative pronunciations [ɹ] and [r].

English has the phoneme /p/, a voiceless bilabial stop. However, there are important and noticeable differences in the pronunciation of this phoneme in the three words *pin*, *spin*, and *sip*. The initial /p/ of *pin* has aspiration, a puff of air following its release; this can be perceived by holding a piece of paper in front of your mouth as you pronounce the word: you will notice it moves on the release of the initial stop. There is no such puff following the /p/ of *spin*; it is not aspirated. The /p/ of *sip* can be pronounced in two main ways. You can release the stop, in which case you will feel a puff of air at the end of the word as air is let out from behind the obstruction at the lips. Alternatively, you can leave it unreleased, in which case there is no puff of air, the closure being maintained and the air remaining pent up behind the lips.

The different ways in which a phoneme is realised or pronounced are referred to as different ALLOPHONES of that phoneme. As we have just seen, the phoneme /p/ has allophones [p<sup>h</sup>] (where the raised h indicates aspiration), [p] and [p̚] (the raised ̚ indicates that the closure is not released).

There is considerable phonological uniformity in Australian languages – in their sets of phonemes – distinguishing them from other languages of the world. There is a general absence of fricatives (see p. 79) in almost all of the languages of the continent, including those spoken in the Kimberley region. It is normal in Australian languages for the voiceless bilabial stop [p] and the corresponding voiced [b] to be grouped together as allophones of a single phoneme. Whereas in English substitution of [p] for [b] will give a different word (e.g. *pin* instead of *bin*), in most Australian languages it does not. In Gooniyandi you could say either [panda] or [banda] and be understood as producing the word for ‘ground’. In a

similar way [t] and [d] are allophones, as are [k] and [g] (see §1.5). In the next two sections we discuss further regularities in the consonants and vowels in Kimberley languages.

As for vowels, most Australian languages have just three, /a/, /i/ and /u/; a smaller number – including some Kimberley languages – have systems with four or five vowels, usually with /e/ and/or /o/ in addition. Vowel length is distinctive in a fair number (though not all) of languages: that is, there is a difference between a long and a short version of a vowel.

Despite the phonological uniformity, there is considerable diversity in the actual sounds used in different Australian languages – in how precisely they are produced, and what they sound like. The allophones of corresponding phonemes often differ perceptibly, even in nearby languages. Furthermore, there are differences in accent, in speed of delivery, and in other aspects of voice quality.

## 4.2 Consonants

Displayed in Table 4.1 is a complete set (with one exception) of consonant phonemes found in Kimberley languages; each language draws its consonants from this set, though no language has all of them. For expository purposes the table has been laid out in a notional way: the places of articulation – listed along the top row – proceed from the front to the back of the mouth, from lips to velum. As we will see, this organisation requires modification, as does the classification into manners listed down the left hand column.

### 4.2.1 Stops and nasals

Up to six distinctive points of articulation are distinguished for stops and nasals – most Kimberley languages, like other Australian languages, have the same number of points of articulation for nasals as for stops. Languages making

Table 4.1 Inventory of consonants in Kimberley languages

	<i>Bilabial</i>	<i>Dental</i>	<i>Alveolar</i>	<i>Retroflex</i>	<i>Palatal</i>	<i>Velar</i>
Stops	<i>b</i> (b)	<i>th</i> (ɖ)	<i>d</i> (d)	<i>rd</i> (ɖ)	<i>j</i> (ʃ)	<i>k</i> (g)
Nasals	<i>m</i> (m)	<i>nh</i> (ɳ)	<i>n</i> (n)	<i>rn</i> (ɳ)	<i>ny</i> (ɲ)	<i>ng</i> (ŋ)
Laterals		<i>lh</i> (ɭ)	<i>l</i> (l)	<i>rl</i> (ɭ)	<i>ly</i> (ɻ)	
Rhotics			<i>rr</i> (ɾ, r)	<i>r</i> (ɻ, ɽ)		
Glides	<i>w</i> (w)	<i>yh</i> (ɹ)		<i>rd</i> (ɽ)	<i>y</i> (j)	<i>w</i> (w)

#### Note

We use the italicised letters on this table when making general statements about Kimberley phonologies. When referring to consonants in particular languages, the standard orthographical representations will usually be employed; this is not a problem since most orthographies are phonemic. Given in brackets are the IPA symbols – in the top row just the symbols for voiced stops are shown; the voiceless ones could also have been added.

all six distinctions are the Bunuban and Jarrakan languages, as well as one or two adjacent Worrorran languages (Unggumi and Wurla). In most other languages – including Pama-Nyungan, Nyulnyulan, and other Worrorran languages – five points of articulation are distinguished, the dental stop and nasal not being distinguished.

Speakers of English are liable to have difficulty in both making and perceiving sounds made at some of these points of articulation. They are almost certain to find it difficult to hear the difference between /th/, /d/ and /rd/ – all of which will sound like /t/ or /d/ – and to pronounce either /th/ or /rd/. They are likely to have the same difficulties with /nh/, /n/ and /rn/. For this reason we describe how these sounds are made. We do not describe bilabial and velar articulation: these are articulated at approximately the same place as they are in English, and cause few problems in perception.

#### 4.2.1.1 Dental articulation

The dental stop and nasal involve contact between the front part of the tongue and the upper teeth. The part of the tongue involved is the blade rather than the tip (see Figure 4.1),<sup>1</sup> which is used in producing /d/, /n/, /rd/ and /rn/. Figure 4.4 shows the approximate position of the tongue for articulation of the dentals, and the approximate area of contact between the blade of the tongue and the teeth. In a few languages the tongue protrudes between the teeth; generally it does not. The stop /th/ is a bit like the *th* of English *thin*, except that it is a stop rather than a fricative. Careful listeners may be able to detect a brief period of noise following the release of /th/, resembling the friction of English *th*. As for the dental nasal /nh/, it usually has a somewhat ‘duller’ or ‘flatter’ sound than an ordinary /n/.

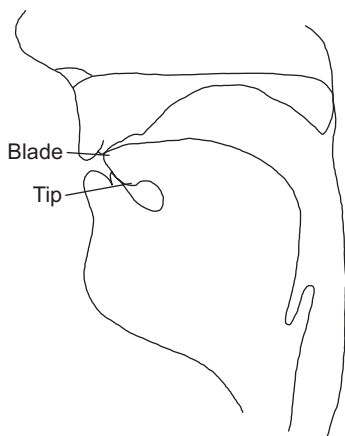


Figure 4.4 Tongue position for dentals.

4.2.1.2 *Alveolar articulation*

The alveolar stop and nasal involve contact between the tip of the tongue and the alveolar region. The exact place of contact can vary depending on the language and the phonetic environment. In some cases it is about as in English *t* and *d*, namely on the alveolar ridge; in other cases it is further forward, touching the teeth, as in the French and Danish *t* and *d*.

4.2.1.3 *Retroflex articulation*

The retroflex stop and nasal are produced with the tip of the tongue touching the hard palate just behind the alveolar ridge – see Figure 4.5. Technically speaking the point of contact is in the post-alveolar region, and for this reason this place of articulation is more correctly referred to as apico-post-alveolar; we will, however, stick to the simpler term retroflex. As already remarked, it is difficult for speakers of English to distinguish retroflex from plain alveolar sounds. It is usually the quality of the preceding (sometimes the following) vowel that distinguishes these consonants: it usually has an *r*-like quality called *r*-colouring near retroflexes.

4.2.1.4 *Palatal articulation*

The closest English equivalent to the palatal stop are the sounds spelt *ch* in *child* and *j* in *jam*. However, the English sounds are really AFFRICATES – combinations of stop followed by fricative – not stops, whereas in Kimberley languages they are usually genuine stops. Figure 4.6 shows the approximate position of the tongue in

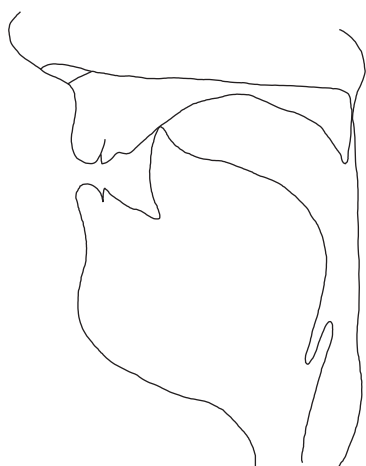


Figure 4.5 Tongue position for retroflexes.



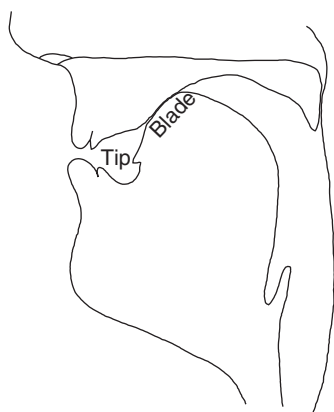


Figure 4.6 Tongue position for palatals.

the articulation of the palatal stop and nasal in Aboriginal languages. Note the large area of contact between the blade of the tongue and the hard palate.

#### 4.2.1.5 *Grouping the places of articulation*

Dental and the palatal consonants are made with the blade of the tongue, which makes contact with either the teeth or the hard palate. In fact, there are close links between the two places of articulation. First, languages that do not distinguish dental and palatal stops or nasals as separate phonemes usually have a single stop or nasal phoneme with dental and palatal allophones. In Nyulnyul, for instance, this nasal is usually realised as palatal [ɲ]; occasionally, when the following vowel is [a], it is realised as dental [ɳ]. Similarly, in Murrinh-patha the dental stop and nasal occur preceding [a] and [u], the corresponding palatals before [i] and [e]. Second, examination of cognates reveals that dentals in languages that distinguish dentals from palatals usually correspond to palatals in languages that do not. This also applies to borrowed words for example, the word, for ‘straight’ in Gooniyandi is /θirrkiɾli/, whereas in Walmajarri it is /jirrkiɾli/.

Alveolar and retroflex consonants involve contact between the tip of the tongue and either the alveolar ridge or the region just behind it; like dentals and palatals, they are closely linked. Whereas all Kimberley languages distinguish between alveolar and retroflex stops and nasals, at the beginning of words the distinction is often not kept – it is NEUTRALISED. This is the situation in Gooniyandi and Bunuba, where it is usually pronounced as an alveolar in word initial position.

For these and other reasons, it is generally agreed that the four points of articulation – dental, alveolar, retroflex and palatal – are complex, and should be defined in terms of both the part of the tongue employed and the place where it

Table 4.2 Revised classification of places of articulation of stops and nasals

	<i>Peripheral</i>		<i>Laminal</i>		<i>Apical</i>	
	<i>Bilabial</i>	<i>Velar</i>	<i>Dental</i>	<i>Palatal</i>	<i>Alveolar</i>	<i>Retroflex</i>
Stops	<i>b</i>	<i>k</i>	<i>th</i>	<i>j</i>	<i>d</i>	<i>rd</i>
Nasals	<i>m</i>	<i>ng</i>	<i>nh</i>	<i>ny</i>	<i>n</i>	<i>rn</i>

makes contact in the mouth. Dental and palatal consonants are called LAMINALS, since they involve the blade of the tongue, the lamina; alveolar and retroflex consonants are APICALS, since they involve the tip of the tongue, the apex. Furthermore, for reasons relating to patterns in their distribution in words (phonotactics), the other two points of articulation – bilabial and velar – are also grouped together. Since they are articulated in the peripheries of the mouth, the extreme front and extreme back, they are called PERIPHERALS. The points of articulation for stops and nasals can now be arranged as shown in Table 4.2.

#### 4.2.1.6 Allophonic variation in stops

We have already remarked that in Australian Aboriginal languages voicing is not normally distinctive for stops. The only exception in the greater Kimberley region is the Daly River language Murrinh-patha. Other languages make no distinction between [p] and [b], [t] and [d], etc. However, both voiced and voiceless allophones of stops occur. Usually voiceless allophones are found at the beginnings and ends of words, while voiced allophones are found between vowels, and before and after nasals (which are always voiced). But the facts are more complex than this, and not only are there many cross-linguistic differences in allophones, but there are also differences within languages depending on place of articulation. Retroflex and palatal stops in Gooniyandi are voiced in a wider range of phonetic environments than other stops.

To give an idea of the range of allophonic variation that can be found in stop consonants, Table 4.3 presents the major stop allophones in Kija.<sup>2</sup>

#### 4.2.2 Laterals

Most Kimberley languages have three laterals: alveolar /l/, retroflex /ɭ/, and palatal /ɥ/; just a few (e.g. Unggumi) have the dental lateral /lh/. The apical laterals have the same points of articulation as the corresponding stops and nasals, and allophonic variation is generally conditioned by the same factors. However, in Kimberley languages with a single laminal lateral, it is usually realised as palatal [ʎ], irrespective of whether or not the language makes a distinction between palatal and dental stops and nasals. Dental articulation is rare.

Table 4.3 Stop allophones in Kija

<i>Phoneme</i>	<i>Allophone</i>	<i>Environment</i>	<i>Example</i>
/p/	unreleased [p̚] voiced [b] voiced [b] or fricative [β]	word finally following nasals between vowels, or when following laterals or /rr/ elsewhere	pura[p̚] ‘to come out’ ngin[b̚]in ‘I will’ ka[b̚/β̚]a ‘what’
	voiceless unaspirated [p]		[p]urrut[p̚]u ‘they are going’
/k/	unreleased [k̚] voiced [g]	word finally following nasals	ngiri[k̚] ‘from south’ nying[g̚]iny ‘hairy caterpillar’
	voiced [g] or fricative [ɣ]	between vowels, or when following laterals or /rr/ elsewhere	pal[g̚/ɣ̚]an ‘open ground’
	voiceless unaspirated [k]		[k]anarram ‘leaves’ nginart[k̚]i ‘I am going’
/th/	voiced fricative [ð̚] or voiced affricate [d̪ð̚] voiceless unaspirated [t̪] or voiceless affricate [t̪θ̚]	between vowels elsewhere	wi[ð̚/d̪ð̚]am ‘mud’ [t̪/t̪θ̚]alalam ‘tongue’
/j/	unreleased [ʃ̚] voiced [ʃ]	word finally and before a consonant between vowels and following voiced consonants	pila[ʃ̚] ‘to follow’ ngi[ʃ̚]pum ‘dark’ nga[ʃ̚]i ‘brother’ tirril[ʃ̚]i ‘a type of bush’
	voiceless unaspirated [c]	word initially	[c]urtu ‘dust’
/t/	voiced [d] voiceless unaspirated [t̪]	following nasals word initially and preceding a consonant	mun[d̪]urr ‘to take’ [t̪]umurru ‘chest’ purru[t̪]pu ‘they are going’
	apico-alveolar flap [ɾ] or voiceless unaspirated [t̪]	between vowels	ja[ɾ/t̪]am ‘rain’
/rt/	voiceless unreleased [ɽ̚] voiced [ɽ]	word finally following a nasal	ta[ɽ̚] ‘hang up’ nyarn[ɽ̚]iny ‘river gum tree’
	voiceless unaspirated [t̪] or apico-post-alveolar flap [ɽ]	between vowels	ju[t̪/ɽ̚]u ‘dust’

Source: Taylor and Taylor (1971: 102–3), adapted to the standard Kija orthography and the IPA.

*Note*

Frances Kofod has a different opinion on the distribution of stop allophones, however. She suggests (pers.comm.) that they tend to be voiced in syllable initial position (see §4.4 later) – thus, word initially, between vowels, and following nasals and other consonants.

### 4.2.3 *Rhotics*

Almost all Australian Aboriginal languages, including all Kimberley languages, distinguish at least two rhotics: an alveolar tap or trill, written *rr* in most orthographies, and an apical continuant, usually written *r*. The former is like the *r*-sound of Scottish English (see §4.1), while the latter resembles the continuant *r*-sound of most other English dialects. The main allophone of /rr/ is usually a voiced alveolar tap; sometimes a trill is heard. Another frequently heard allophone is a voiceless or partly devoiced tap or trill. Thus, in Ngarinyin word final /rr/ is normally a voiced tap or a partly to fully devoiced trill; voicing usually extends through the first tap of the trill, and then trails off (Rumsey 1982a: 5). The continuant /r/ is normally fully voiced, and the tongue usually points somewhere towards the area around the alveolar ridge.

One or two languages, including Warlpiri and Ngardi, have a third rhotic phoneme, written *rd* in the standard orthographies. This is a retroflex tap or trill (IPA [ɽ]).

### 4.2.4 *Glides*

Most Kimberley languages have two glides /w/ and /y/, pronounced much as in English. More technically, /w/ is usually a voiced bilabial approximant or frictionless continuant, whilst /y/ is a voiced palatal approximant. In the environment of /u/ and /i/, /w/ and /y/ are often imperceptible. Thus, *Yiyili* (the name of a Gooniyandi community mid-way between Fitzroy Crossing and Halls Creek) is usually pronounced [iɾli] or [i:li], rather than [ji:li] or [jijili] (the colon indicates that the vowel is long). And *woongooloo* ‘for fun, not seriously’ can be pronounced either [uŋulu] or [wuŋulu] in Gooniyandi.

The third glide, /yh/, is found in just two Kimberley languages, Bunuba and Unggumi. Like /y/, it involves the blade of the tongue; but instead of approximating the hard palate, it approximates the teeth. Its point of articulation is roughly as for /th/ and /nh/. /yh/ is in other words the lamino-dental glide – IPA [ɹ̠] – corresponding to the lamino-palatal glide /y/.

### 4.2.5 *Status of rhotics*

Observant readers may have noticed that a more regular pattern can be obtained in Table 4.1 if *r* is placed in the glide row instead of the rhotic row. This reorganisation also makes phonetic sense – [ɹ] and [ɽ] are approximants, like [w] and [j].<sup>3</sup> There are also phonological reasons for grouping /r/ with /w/ and /y/: they show similar patterns of occurrence within words. Furthermore, many sound correspondences link stops with glides at the same point of articulation – /b/ and /g/ with /w/, and /j/ with /y/. These are paralleled by correspondences of /rd/ with /r/, such as the following among borrowed words in Walmajarri and Gooniyandi: *jilpirti* with *jilwiri* ‘intestines’, *kartany* with *garanyi* ‘hot cooking stones’, and *ngartak* with *ngarag* ‘make’.

Table 4.4 Reanalysis of places and manners of articulation

	<i>Peripheral</i>		<i>Laminal</i>		<i>Apical</i>	
	<i>Bilabial</i>	<i>Velar</i>	<i>Dental</i>	<i>Palatal</i>	<i>Alveolar</i>	<i>Retroflex</i>
Stops	<i>b</i>	<i>k</i>	<i>th</i>	<i>j</i>	<i>d</i>	<i>rd</i>
Nasals	<i>m</i>	<i>ng</i>	<i>nh</i>	<i>ny</i>	<i>n</i>	<i>rn</i>
Glides		<i>w</i>		<i>y</i>		<i>r</i>

The advantage of interpreting /r/ as a glide is made clear in Table 4.4, which has the additional advantage that /w/ appears in just one cell, rather than two as in Table 4.1.

### 4.3 Vowels

As already mentioned (p. 83) most Australian languages have simple vowel systems, and distinguish just three vowel phonemes, /i/, /a/ and /u/; length is sometimes distinctive. A number of Kimberley languages have one or two additional vowels; but none have large vowel repertoires like English and other European languages.

Vowels in Australian languages show considerable allophonic variation, much more than in English. Thus the high front vowel /i/ may have allophones including [i] (as in *bead*), [ɪ] (as in *bit*), and even [ɨ] (as in the New Zealand pronunciation of *fish*) and [e] (like the beginning part of the vowel in *bay* in Australian English). The low vowel /a/ may have allophones [æ] (as in *bat*), [ɑ] (as in *half*), and [ʌ] (as in *but*). The high back vowel /u/ usually has allophones ranging from [u] (as in *pool*) to [ʊ] (as in *pull*), and [o] (like the beginning part of the vowel in *bow* in Australian English) in some languages.

Figure 4.7 displays graphically the range of allophonic variation of Gooniyandi vowels. Which allophone occurs depends primarily on the phonetic environment: for instance, before a velar consonant one hears back allophones of /a/ ([ʌ] and [ɑ]), while before palatals fronter allophones occur ([æ] and [ɛ]). Some variation is however ‘free’ – that is, is not predictable from the phonetic environment, and does not carry meaning differences. The details of allophonic variation are quite complex, and need not concern us here (see McGregor 1990: 58–70).

Vowel length is significant in most Kimberley languages; exceptions include Miriwoong and Nyikina. In most Pama-Nyungan languages length is significant for all vowels: Walmajarri has long /ii/, /uu/ and /aa/ next to short /i/, /u/ and /a/. In a number of non-Pama-Nyungan languages, however, length is not significant for all vowels. In Wunambal, for instance, it is significant for five of the six vowels, the exception being the high central vowel /ɪ/ (see final paragraph of this section). If length is significant for any vowel, it will include the low vowel /a/: all languages with a length contrast to distinguish /a/ from /a:/. In Gooniyandi, Bunuba, Kija, and Ngarinyin (among others) /a/ is the only vowel showing the length distinction.

As will be seen in the next section, syllables in Aboriginal languages are normally of the type CV(C) – that is, a consonant (C) followed by a vowel (V),

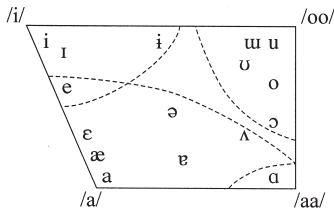


Figure 4.7 Allophones of Gooniyandi vowels.

optionally followed by another consonant. Words beginning with [i] and [u] phonetically can generally be interpreted phonologically as beginning with glides /y/ and /w/ respectively: that is, [i] and [u] can be interpreted as the phonetic realisations of /yi/ and /wu/ (see also p. 89). This interpretation is strengthened in many languages by the fact that [i] and [u] alternate with [ji] and [wu]. Similarly, [ai] can be interpreted as a realisation of /ayi/ rather than as a sequence of vowels. In some languages [i:] and [u:] can be interpreted as realisations of /iyi/ and /uwu/, rather than as separate long vowels /i:/ and /u:/. Indeed, it is preferable to adopt this analysis unless there is a contrast between [i:] and [iji], and between [u:] and [uwu]. Otherwise, we would not only have to posit the long vowel phonemes – which usually do little work anyway – but also account for the absence of sequences /iyi/ and /uwu/.<sup>4</sup> Thus, in the languages mentioned in the previous paragraph that do not have length distinctions in anything but the low vowel, it is not so much that [i:] and [u:] do not occur, but rather that they are realisations of /iyi/ and /uwu/.

At least four distinct systems of more than three short vowels are found in Kimberley languages. Bardi has a four vowel system that has an additional mid-back vowel /o/. This vowel is unique to Bardi, and derives historically from VCV sequences such as \*/aga/ and \*/awi/. Kija and Miriwoong also have four vowels. But their extra vowel is not /o/, but a mid-central vowel the major allophone of which is [ə] – similar to the vowel of unstressed syllables in English, for example, the first vowel in *semantic*.

Most Worrorran languages have a five vowel system, which includes the mid-front vowel /e/ and the mid-back /o/. The quality of these vowels differs somewhat across the languages: in Ngarinyin /e/ is realised as a short [ɛ], like the vowel of English *set*, whereas in Worrorra it is realised as the somewhat longer and higher [e:]. Wunambal has a sixth vowel, a high central vowel generally pronounced [i].

#### 4.4 Words and syllables

In most Australian Aboriginal languages words usually begin with a consonant and end with a vowel. This holds true in many Kimberley languages; for example, in Wangkajunga we have *wati* ‘man’, *jiji* ‘child’, *yanu* ‘went’, *kuka* ‘meat’, *yumari* ‘mother-in-law’, *ngapulul* ‘breast, milk’, *palunya* ‘that’, and so on. There are,

however, exceptions, and the first generalisation that words begin with consonants is more consistently adhered to than the second that words end in vowels.

Most Kimberley languages have no more than a few words beginning with a vowel. These are usually interjections like *aga* ([aga]) or *igi* ([iki]) ‘oh, no!’ in Gooniyandi, Bunuba and Unggumi. Some languages, however, permit more words to begin with vowels. Bardi is such a language; in fact, words may begin with any of the four vowels, as the following examples show: *oolool* ‘hairy’, *agal* ‘and’, *olorrgi* ‘seagull’, *ilil* ‘wide’.<sup>5</sup> In neighbouring Nyulnyul a few words begin with the low vowel /a/, for example, *arri* ‘no, not’, *angga* ‘what’. Some words begin with high vowels, for example, [i:l] ‘dog’, [u:l] ‘water’. However, such words should probably be analysed phonologically as having initial /y/ and /w/: thus, /yil/ ‘dog’ and /wul/ ‘water’.

More Kimberley languages permit final consonants, though words with final consonants are never as frequent as words with final vowels. Often words with final consonants are by and large restricted to interjections and uninflecting verbs (§8.3). Exceptional is Nyulnyul, in which about 90 per cent of words end in a consonant or CONSONANT CLUSTER – two or more consonants in sequence, without an intervening vowel.<sup>6</sup> Walmajarri permits final consonants in words from most parts of speech though not as frequently as Nyulnyul, and there are restrictions on permissible final consonants – /t/, /m/, /ng/, /r/, /w/, and /y/ are not allowed – and consonant clusters.

The simplest and most common pattern is for the vowels and consonants of words to alternate, giving canonical word shapes CV, CVCV, CVCVCV, and so on. The Wangkajunga words cited earlier provide illustration. But words may be more complex, and involve more intricate sequences of consonant and vowel. A vowel together with a preceding – and perhaps following – consonant is referred to as a SYLLABLE. The canonical shape of a syllable is CV. Other not infrequent shapes include CVC, CCVC, CCVCC, and CVCC; shapes such as VC and VCC with initial vowels are rarer.

The notion of the syllable permits a number of generalisations about permissible sequences of phonemes in Kimberley and other Australian languages.

First, sequences of vowels do not normally occur. If a V syllable occurs (as is in Bardi), it will be followed by a syllable with initial consonant, for example, CV(C(C)).

Second, words usually have at least two syllables; words with a single syllable (monosyllables) are fairly rare, and are usually restricted to interjections and uninflecting verbs. Monosyllables usually have a long vowel (CV:) or at least one final consonant (CVC, CVCC, etc.).

Third, the first and subsequent syllables of a word sometimes differ in terms of what consonant can occur initially. At the beginning of a word it is not unusual for some consonants be precluded, and/or for certain contrasts not to apply. Many Kimberley languages do not allow /rr/ or /ly/ at the beginning of a word, and the contrast between alveolar and retroflex stops, nasals and laterals often does not apply. It is usually only between vowels (intervocalically) that all consonant phonemes are found and all contrasts are maintained.

Fourth, consonant clusters are usually restricted to just two consonants, which belong to different syllables. For example, in the Walmajarri word *pinyjirrmiyi* ‘bat’, the palatal nasal /ny/ belongs to the first syllable, the following stop /j/ to the second syllable, which also contains the /rr/. The syllabic division of this word is thus /piny.jirr.mi.yi/, where dots mark syllable boundaries. This entails that syllables of the forms CCV(C) and (C)VCC do not normally occur within words. The first shape is possible in the first syllable of a word in some languages; the second sometimes in the final syllable. But admissible consonants are severely restricted in both syllable types.

More two member consonant clusters are permitted between vowels, though they represent only a small fraction of the logically possible clusters. All Kimberley languages permit clusters consisting of a nasal followed by a stop at the same place of articulation – which may be any place available in the language. For instance, in Nyikina we have /mb/ in *wamba* ‘man’, /nd/ in *mandu* ‘foul, stinking’, /rnrd/ in *marnrdu* ‘pregnant’, /nyj/ in *balinyjarrangu* ‘young emu’, and /ngk/ in *jungku* ‘fire’.

Other types of consonant clusters occur between vowels, but there are strong restrictions on the allowable combinations, and they differ somewhat from language to language. A few generalisations are possible, although they hold more or less strongly depending on the language:

- (i) If a liquid – that is, lateral or tap/trill – occurs in a cluster, it is almost always the first member; the second will be a stop or nasal. Gooniyandi, Nyikina, Nyulnyul, Gunin/Kwini, and Ngarinyin permit clusters of any of /l/, /r/ or /rr/ followed by one of /b/, /g/, /m/ or /ng/ – that is, a peripheral stop or nasal (see p. 87).
- (ii) Glides are rare as either first or second member of a cluster.
- (iii) The most common clusters are of a nasal followed by a stop; stop–stop clusters and nasal–nasal clusters also occur. Although stop–nasal clusters exist in a few languages, they are uncommon; they do not occur at all in Gooniyandi or Nyikina, and they are restricted to the apical nasal in Ngarinyin.
- (iv) The second member of a cluster is likely to be a peripheral stop or nasal, the first member, an apical or laminal.

Consonant clusters occasionally have more than two consonants. Ngarinyin permits a handful of three member consonant clusters between vowels: /l-ng-g/, /l-n-b/, /l-n-g/, /rl-m-b/, /rl-ng-g/, /rl-n-b/, /rl-n-g/, /rl-m-b/, as well as /b-rr-r/ at the beginning of words. Some Nyulnyulan languages permit three member clusters between vowels, but not at the beginning of words.

The discussion of this section has been confined to words consisting of a single morpheme (i.e. minimal meaningful unit – §5.1). In words involving prefixes, suffixes, and so on, different patterns of phoneme combination are found. For instance, different – often more – consonant clusters are usually permitted than within single morphemes.



## 4.5 Stress

If a word has more than one syllable, as do most words in Aboriginal languages, there will be audible differences in the prominence of the syllables – some are more salient or noticeable than others. The main way of making a syllable more prominent is by using more lung activity thus increasing the amount of air pushed out from the lungs and into the vocal tract. This is often accompanied by a tensing of the vocal cords, resulting in higher PITCH, higher frequency of vibration of the vocal cords. Syllables produced with more lung energy and increased tension in the vocal cords are called STRESSED SYLLABLES; the increased energy is STRESS. Stressed syllables sound louder and are usually higher pitched than the unstressed syllables; they are often also longer. In English, differences in stress are used to distinguish different words. There is a difference between the noun *cóntract* (referring to a type of agreement), with stress on the first syllable – stress is marked by an accent over the vowel – and the verb *contráct* (meaning ‘to make a contract with someone’), with stress on the second syllable.

Things are different in most Aboriginal languages where stress is not used to convey meaning differences. Stress placement is predictable: it normally falls on the first syllable of a word. If a word is more than three syllables long, one of the later syllables is often stressed as well. In Walmajarri the first syllable of a word is always stressed; if the word has four or more syllables, the penultimate (i.e. second-last) syllable is also stressed. Heavier stress goes on the first syllable than on the penultimate syllable: it has PRIMARY stress; the penultimate syllable has SECONDARY stress. In the two-syllable words *ngár.pu* ‘father’ and *ngá.pa* ‘water’ primary stress goes on the first syllable; the second is unstressed. In *ngá.ka.lyà.lya* ‘cockatoo’ and *má.rtu.wà.rra* ‘river’ the first syllable has primary stress, while the third has secondary stress. Similar patterns are found in neighbouring Gooniyandi, where the first and penultimate syllables (if the word is more than three syllables long) are generally stressed. However, it is the penultimate that usually bears primary stress – for example, *bà.boó.rróó.nggoo* ‘to the bottom’. But there are complications. If the word has three syllables, and a long vowel in the second syllable, it is the second syllable that gets stress, as in *bilgáali* ‘midnight’, and *mandáarra* ‘Leichhardt tree’. It is possible to account for this and other apparent irregularities with complex rules for assigning stress, that are too complicated to go into here (see McGregor 1990: 119–23).

If a word has prefixes or suffixes, stress placement is a more complex issue. Suffixes of more than one syllable usually have their first syllable stressed, as in Walmajarri *pá.marr.-kà.rra.ji.-wàrn.ti* (stone-belonging:to-plural) ‘the ones belonging to the hills’ (hyphens mark the beginning of the suffixes). If the suffix has just one syllable, however, it is usually not stressed, and the word is stressed as though it was a simple word of one morpheme. In Gooniyandi the single-syllable suffix *-ngga* ‘by’ attaches to *nganyi* ‘I, me’ to give *ngá.nyi.ngga* ‘by me’; but when attached to *barndanyi* ‘old woman’, the third syllable is stressed,

*bà.rnda.nyí.ngga* ‘by the old woman’. In each case, the word is stressed like a simple word with the same number of syllables.

Even though stress is not normally used to distinguish simple words in Australian languages, it can distinguish between words of more than one morpheme, as illustrated by the following data from Warlpiri. The word *yaparla* ‘father’s mother’ can take the suffix *-ngurlu* ‘from’, giving *yá.pa.rla.-ngù.rlu* ‘from father’s mother’. The word *yapa* ‘person’ can take the suffixes *-rlangu* ‘some’ and *-rlu* ‘by’, giving *yá.pa.-rlà.ngu.-rlu* ‘by some person’. Here we have two complex words differing only in stress placement, which is determined by the length of the suffixes.

#### 4.6 Connected speech

Up to now we have restricted attention to the sound make-up of isolated words. We conclude the chapter by briefly looking beyond the word, to connected speech. In no language are utterances habitually produced in a dull monotone, with constant pitch (rate of vibration of the vocal cords) throughout. Variations in pitch are an important part of utterances, and convey meanings not carried by words. For instance, in many languages a rise in pitch at the end of a sentence indicates a question – compare the effect of saying *You know the answer* first with a rise in pitch on the last word, next with a fall in pitch.

The distinctive patterns of pitch variation – that can for instance make the difference between a question and a statement – are referred to as INTONATION CONTOURS. A single utterance might well consist of more than one intonation contour. The unit of speech over which a single intonation contour applies is called an INTONATION UNIT. The division of utterances into intonation units is usually meaningful. In Gooniyandi and many other languages, each intonation unit for an utterance carries one unit of information: roughly, the quantity of information the speaker considers the hearer will be able to take in (process and understand) at one time. The more information the speaker thinks the hearer will be able to process, the longer the intonation contour – the more words in it.

Within an intonation unit, one syllable usually stands out as most prominent; this is usually a stressed syllable that is also the location of the major pitch variation. In Gooniyandi, the prominent syllable falls within the word that the speaker considers to be the most important or newsworthy, the information Focus. This is shown clearly in example (4.1), where boldface indicates the prominent syllables and the slashes mark the ends of intonation units. The speaker clearly wants to contrast the different directions the two men took. We know from the first intonation unit that they went in different ways – this is the most important information in that unit, and prominence goes on the word expressing that meaning. What is most newsworthy in the following units is the actual directions they took – thus prominence goes on *baboorroongoo* ‘downwards’ in the second unit, to *thaanoongoo* ‘upwards’ in the third.

- (4.1) *ngidi gadjinmarni/ nganyi baboorroonggoo wardngi/* Gooniyandi  
 we we:split:up I downwards I:went  
*niyi thaanoonggoo wardji/*  
 he upwards he:went  
 ‘We split up; I went down, he went up.’

Notice that prominence most naturally goes onto the corresponding words in the English translation, onto *split*, *down*, and *up*. If instead you were to make *we* prominent in the first unit, the utterance would sound somewhat unusual; it would be more natural to follow on with *they remained together*, with *they* prominent. The same is true for Gooniyandi.

Another important aspect of connected speech is pausing. Speakers have to pause sometime during the course of long utterances; there are physical limitations on the duration of breath. But they usually pause much more often than they have to, and in places where they do not need to take breath. These pauses can be significant. A pause might signal the end of the speaker’s turn in conversation, inviting the hearer to take a speaking turn. In many Aboriginal languages (including Aboriginal English), pausing plays an important role in story telling. We discuss this, and other features of narrative delivery in §11.3.1.

### Further reading

An excellent and very readable introductory textbook on phonetics is Ladefoged (2001a); Ladefoged (2001b) is more technical. The former is accompanied by a nice CD-ROM giving many examples of sounds of the world’s languages; other excellent CD-ROMs are Reid (1999) (phonetics only) and Handke (2000) (phonetics and phonology). Dixon (1980: ch. 6) gives a good account of Australian language phonetics and phonology, delving into some issues only indirectly alluded to in this chapter. Further discussion of the patterning of /r/ with glides, and /rr/ with liquids can be found in McGregor (1988b) and Breen (1997). Few detailed investigations of intonation in Australian Aboriginal languages have been completed, though some are currently in progress; the only book-length study is King (1998) (Dyirbal). Coate and Oates (1970) is one of the few grammars of a Kimberley language that covers intonation; further details and examples are in Coate (1970). McGregor (1986) discusses the nature and functions of intonation units in Gooniyandi, but does not deal with the types of contour.

## FUNDAMENTAL CONCEPTS OF GRAMMAR

### 5.1 Words and morphemes

Like Australian Aboriginal languages generally, Kimberley languages can be described as agglutinating: words are made up of fundamental grammatical pieces that are as it were ‘glued’ together in a string. These fundamental elements are called MORPHEMES – the atomic units of grammar, that cannot be divided further into smaller meaningful pieces; they are the smallest meaning-bearing units in a language. Consider the following Nyikina sentence:

- (5.1) *kinya marru yi-nga-n linykurra-ya marru* Nyikina  
 that head it-be-present crocodile-of head  
 ‘That head is (still there), the crocodile’s head.’

This sentence is made up of five words, three of which are single morphemes that cannot be divided further into meaningful bits.<sup>1</sup> Such indivisible words are ROOTS. The other two words are made up of morphemes strung together one after the other. First is *yi-nga-n* ‘it is’, consisting of the root *-nga-* ‘be’ with prefix *yi-* indicating that the item in question is a single person or thing (‘he’, ‘she’, or ‘it’) and suffix *-n* indicating that the time is the present, now. The second complex word, *linykurra-ya* ‘crocodile’s’ consists of the root *linykurra* ‘crocodile’ followed by *-ya* ‘of’, which tells you that the crocodile is the possessor of the head.

Roots constitute the vocabulary of a language, items that give information about the world of experience of speakers of the language. Non-root morphemes are not vocabulary items – they give purely grammatical information, not information about the world. To find out about roots you would go to a dictionary; to find out about other morphemes you would go to a grammar to get the fullest information. Root morphemes are LEXICAL morphemes (or vocabulary items), non-root morphemes are GRAMMATICAL (or function) morphemes. The lexical morphemes of a language are typically FREE – that is, they are capable of occurring by themselves, without other morphemes attached to them. They also generally constitute an OPEN class – new members are readily admitted. Grammatical morphemes, by contrast may be either free or BOUND – incapable of occurring on

their own, without other morphemes attached to them. New members are not readily admitted: they form CLOSED classes.

Roots are not the only type of lexical word. Some lexical words are made up of more than a single morpheme; such complex lexical words are called STEMS. We can distinguish three main types of stem, according to the sorts of morphemes that make them up.

First, a stem may be a REDUPLICATION or repetition of a root. For example, Nyikina *ngarri-ngarri* 'dead people' is a reduplication of *ngarri* 'spirit, devil', *daboo-daboo* 'rough (e.g. of road)', of *daboo* 'big, deep hole'. Reduplication is a common means of forming stems in Australian languages; as in the Nyikina examples, reduplication often indicates multiplicity of items (e.g. rough roads have many holes, etc.). It is also not uncommon for roots to be reduplications of meaningless forms: Gooniyandi *gilinygiliny* 'galah' is an example – the reduplicated *giliny* is not a morpheme, and has no meaning.

Second, a stem may consist of two different roots COMPOUNDED together, as in English words such as *bookshelf*, *countryside*, etc. This process is quite common in Kimberley languages. The following Nyikina compounds involve the root *booroo* 'country, place' as the second item: *dibiny-booroo* 'scrub country' – *dibiny* 'rib, ribbed'; and *jookook-booroo* 'dense scrub' – *jookook* 'as/so far, come to a stop'.

Third, a stem may involve a root plus a grammatical morpheme indicating that a new word is derived from the root; such grammatical morphemes are called DERIVATIONAL morphemes. These are fairly numerous in most Kimberley languages. Examples are Nyikina *jalngka-ngoorroo* 'doctor, medicine man', which consists of the root *jalngka* 'cure' and the derivational *-ngoorroo* 'much'; and *ngarri-dany* 'guilty person, murderer' involves *ngarri* 'spirit, devil' and the (rare) derivational suffix *-dany*, meaning something like 'characterised by'. Most Kimberley languages have at least one derivational morpheme like Nyikina *-dany* 'characterised by', that derives a noun stem referring to a person who is closely involved or associated with the thing referred to by the root; this is similar to the English *-er* suffix of *baker*, *eater*, *cooker*, etc.

Derivational morphemes sometimes change the part-of-speech of a word (see §5.2), for example, from a noun to a verb, or vice versa. Some derivational morphemes are free in terms of the parts-of-speech they can be attached to; others are restricted to a single one. Regardless of this, the derived stem usually belongs to a single part-of-speech. The Gooniyandi derivational suffix *-ngarna* 'inhabitant of' is restricted to nouns, whereas *-mili* 'characterised by' can occur on nouns (e.g. *gamba-mili* (water-characterised by) 'a drinker') or verbs (*jijag-mili* (speak-characterised by) 'a talker'), the resulting stem being invariably a noun.

Kimberley languages are rich in grammatical morphemes, and they come in a variety of types. Returning to example (5.1), the morphemes *yi-* 'it' and *-n* 'present' are clearly not derivational morphemes: *yi-nga-n* 'it is' is not a new stem derived from *-nga-* 'be'. Rather, it is a form of *-nga-* 'be', an INFLECTED form; the morphemes *yi-* and *-n* are accordingly referred to as INFLECTIONAL morphemes

or INFLECTIONS. Kimberley non-Pama-Nyungan languages are rich in inflections, especially for their verbs. Words can have both derivational morphemes and inflections; if so, the derivational morpheme normally occurs between the root and the inflection. Thus we have the general or canonical word pattern shown in (5.2), where brackets enclose optional items.

- (5.2) (INFLECTION(S)) + (DERIVATIONAL MORPHEME(S)) + ROOT +  
(DERIVATIONAL MORPHEME(S)) + (INFLECTION(S))

Whereas inflectional prefixes are common in non-Pama-Nyungan languages, derivational prefixes are not – derivational morphemes are typically suffixes.

Morphemes like *-ya* ‘of’ in *linykurra-ya* ‘crocodile’s’ are generally called CASE-MARKERS: they indicate the grammatical role of the noun in the phrase or sentence (see §5.3). In the present case, *-ya* ‘of’ indicates that the noun *linykurra* ‘crocodile’ is the possessor of the head. Case-markers do much the same job as English prepositions like *to* (as in *to the river*), *from* (as in *from the beginning*), *in* (as in *in the fire*), and so on. In many Australian languages these are inflectional suffixes (Dixon 1980: 292ff.). However, in the majority (if not all) of the languages of the greater Kimberley region the case-markers are not inflectional suffixes, and do not give rise to inflected forms of nouns. Rather, like English prepositions, they belong to whole phrases (see §5.3, and Blake 1987: 78ff.), not words. In Warlpiri a phrase normally takes just one case-marker, which is attached to its last word; in the following example the case-marker *-ngki* ‘by’ is attached to the end of the phrase *jarntu wiri* ‘the big dog’:

- (5.3) *jarntu wiri-ngki-ju yariki-rnu* Warlpiri  
dog big-by-me bite-past  
‘The big dog bit me.’

The difference from English is that the case-marker goes to the end of the phrase, rather than to the beginning, and is not a separate word: it cannot be detached and put elsewhere.

Some languages – including Ngarinyin and other Worrوران languages – are like Warlpiri in positioning a case-marker at the end of a phrase. But in Nyulnyulan languages the case-marker is generally attached to the first word of a phrase, not to the last, as in

- (5.4) *kinya-marru buru nga-rnda-ny* Warrwa  
this-via place I-go-past  
‘I went via (or through) this place (house).’

And in Gooniyandi it goes on the word that is considered to be the most important, regardless of its position. Thus, although it goes on the first word in (5.5),

it could equally have gone on *garndiwirri* ‘two’ or *yoowooloo* ‘man’ – with a difference of emphasis:

- (5.5) *ngoorroo-ngga garndiwirri yoowooloo gardbirrini*      Gooniyandi  
           that-by            two            man            they:hit:him  
           ‘Those two men hit him.’

Since they go to the end of the word they are attached to, we will refer to these case-markers as POSTPOSITIONS, irrespective of the position they take in the phrase.

Postpositions are ENCLITICS: that is, basically words that can’t stand alone, that have to be attached to other words. They are like the shortened forms of *am*, *will*, etc. found in words such as *I’m* and *you’ll*, except that the attachment has become tighter, and no corresponding free form exists. Kimberley languages show a variety of enclitics, expressing a wide range of different meanings. One notable type of enclitic are enclitic pronouns, as is *-ngayu* ‘me’ in (5.6) – see further §6.3.

Morphemes are the grammatical atoms of a language; they have two essential properties, a form and a meaning. But complications arise. For instance, consider example (5.6):

- (5.6) *ngayu inyja nga-rnda-ny yila-warri*                      Warrwa  
           I            going I-go-past            dog-with  
           ‘I went with the dog.’

If I wanted to say that I went with another dog, instead of *yila-warri* (dog-with) ‘with the dog’, I would have to say *warany-barri yila* (other-with dog) ‘with another dog’. Clearly *-barri* ‘with’ is just a variant of *-warri* ‘with’, not a completely different morpheme. Such variants are called ALLOMORPHS. In this case the different allomorphs are chosen according to the final phoneme of the word the ‘with’ morpheme is attached to: *-warri* if it is a vowel, *-barri* if it is a consonant. Choice of allomorph is not always dependent on phonology. To say ‘I will go with the dog’ in Warrwa you would use the verb form *karnda*, where *ka* indicates that it is the speaker who goes and that the time is later. Thus *nga-* and *ka-* are allomorphs of ‘I’ that are conditioned by the time of the event, whether it is in the past or future.

A second complication is that it is sometimes useful to recognise zero morphemes: meaningful units that have no phonological form. How can this be: how can we speak of nothing as a form? The reason is that sometimes we get a better description by identifying zero morphemes; but strong constraints must be placed on the identification of zero morphemes – otherwise you could identify them wherever you found some meaning difference. One important constraint is that they should occur in contrast with one or more non-zero morphemes. Consider example (5.7).

- (5.7) *lar yin-andi-na-ngayu nimidi danji-ni booroo* Nyikina  
 peel it-get-past-me knee hard-by ground  
 'The hard ground took the skin off my knee.'

The presence of *-ngayu* 'me' on the verb tells us that it was the speaker whose knee was skinned. It can be replaced by various other enclitics depending on whose knee was skinned: *-ju(wa)* if it was yours; *-jarr* if it was ours; *-jirr* if it was theirs. But to say it was another person's, his or hers, you would just use the plain verb form *yin-andi-na*. It makes better sense to say that this involves an enclitic with zero form – written  $\emptyset$  – and meaning 'his' or 'hers' than to say that there is nothing there, and this means 'his' or 'hers'! It turns out that in many languages the enclitic marking 'he' or 'she' – frequently also 'it' – has zero form.

## 5.2 Parts-of-speech

Not all roots and stems in a language behave in the same way grammatically; nor, on the other hand, does each behave in a completely idiosyncratic fashion. Usually there are sufficient commonalities and differences in the behaviours of words to permit them to be grouped into classes or parts-of-speech. The members of one part-of-speech behave similarly – not necessarily identically – and differently from words of other parts-of-speech. Usually there are also meaning similarities amongst words of the same part-of-speech, and dissimilarities with words of different parts-of-speech.<sup>2</sup>

Eight major parts-of-speech can be distinguished in most Kimberley languages:

- nominals
- pronouns
- inflecting verbs
- uninflecting verbs
- adverbs
- particles
- interjections
- ideophones

It is widely reported in introductions to Australian languages that disjoint parts-of-speech can usually be defined by a simple morphological criterion, the range of morphemes permitted with member words (e.g. Dixon 1980: 271; Blake 1987: 2). Thus, nominals would be inflecting words admitting case-marking affixes; verbs would be inflecting words taking inflections for temporal categories; adverbs would take still other morphemes; and particles, interjections, and ideophones would take none. By examining any instance of a word in a sentence it should usually be possible to determine its part-of-speech. Few words would belong to more than one part-of-speech, and a word would usually have to take a derivational morpheme before it could behave like a word of another part-of-speech.



Things do not pan out so simply in most Kimberley languages. Defining parts-of-speech this way usually results in a situation similar to English, where many words belong to more than one part-of-speech. Consider the Gooniyandi word *yoowooloo* 'man'. As expected, this word usually occurs with case-marking postpositions, and would be classified as a nominal. However, it can also behave like a verb, as in *yoowooloo-windi* 'he became a man', and like an interjection, as in *Yoowooloo!* 'Man!'. On the other hand, *ward-* 'go' usually occurs with verbal morphemes and would be classified as verb; however, it can also occur with case-marking postpositions, as in *ward-nhingi* 'from going'. Some verbs can also be used as ideophones (see later), for example, *Door!* 'Bang!'. These are not isolated instances restricted to one language, and application of the simple morphological criterion would result in parts-of-speech with considerable overlap; Walsh (1996) describes such a situation in Murrinh-Patha.

Despite the problems with the criteria of morphological potentials, it remains true that most words usually occur with one set of morphemes. The Gooniyandi word *yoowooloo* 'man' usually occurs with postpositions, much less frequently with verbal morphemes. Furthermore, words occurring with morphemes typical of one part-of-speech (defined by the above-mentioned morphological criteria) generally occur with most such morphemes, whereas they will usually occur with only a small selection of the morphemes associated with another part-of-speech. Thus it seems likely that in general it will be possible to refine the criteria so as to define largely disjoint parts-of-speech. The refinements will, however, almost certainly differ from language to language.

In the remainder of this section, we outline some of the main characteristics of the eight main parts-of-speech, without attempting to actually provide definitions. A few comments will also be made on difficulties that arise, as well as on some of the minor parts-of-speech found in some languages.

Nominals in most Kimberley languages occur either in bare form, or with a case-marking and/or another postposition such as a number-marker.<sup>3</sup> In this regard, they are not unique, although words of other parts-of-speech are more restricted in terms of the postpositions that can be attached to them.

One important feature of many Australian languages is that there is no distinct class of adjectives. Words corresponding to adjectives in English and other familiar languages – that is, words like *big*, *little*, *green*, *old*, *stupid*, etc. – are generally indistinguishable in grammatical behaviour from nouns (like *boy*, *dog*, *mountain*, etc.). This situation is quite different to the situation for nominals and uninflecting verbs or adverbs. For nouns and 'adjectives' the morphological differences are too slight to permit us to distinguish separate word classes. Not so for the other two parts-of-speech: tendencies are obvious, and it is only with considerable exposure to a language that one comes to realise that words of these part-of-speech can occur with postpositions.

Some Kimberley languages do, in fact, distinguish adjectives as a subclass of nominals. In Worrorrnan and Jarrakan languages adjectives, unlike nouns, do not have a unique gender; they take the gender of the noun they modify. They form

a fairly small class, and do not include all words that correspond to adjectives in English.

Pronouns are words like *I, you, him, her*, etc. that refer to people or things in terms of their relation to the main participants in a speech event, that is, the speaker and the hearer. First person pronouns include the speaker; second person pronouns include the hearer, but not the speaker; and third person pronouns include neither speaker nor hearer. Australian Aboriginal languages usually have fairly complex pronoun systems. In many Kimberley non-Pama-Nyungan languages pronouns can be distinguished from nominals by virtue of the fact that each comes in at least two different forms, a basic or cardinal form, and a possessive form, used in indicating a possessor. For example, for the speaker Nyulnyul has cardinal pronoun *ngay* ‘I, me’, and possessive *jan* ‘my, mine’. Pronouns usually take the same case-marking morphemes as nominals. All Kimberley languages have pronoun enclitics; the non-Pama-Nyungan language have prefixes and suffixes as well.

Like pronouns are determiners: words that help specify more precisely the identity of the thing being spoken about. The two main types are demonstratives (like ‘this’ and ‘that’), and indefinite/interrogative determiners (‘someone, who’, ‘something, what’). Some grammars treat these as types of pronouns, others as types of nominal; here we discuss them along with pronouns, in Ch. 6.

One of the most interesting features of Kimberley languages is that they almost always have two distinct parts-of-speech corresponding to verbs in languages like English. These I refer to as INFLECTING VERBS and UNINFLECTING VERBS.<sup>4</sup>

Inflecting verbs usually take inflections indicating when and whether the event happened; in non-Pama-Nyungan languages inflections also tell you about who was involved in the event. The Nyikina verb *yi-nga-n* (it-be-present) ‘it is’ in example (5.1) is an inflecting verb – more precisely, it is an inflected form of the inflecting verb -NGA ‘be’ (inflecting verb roots are written in capitals). The class of inflecting verbs is easy to define: it consists of all words that can take the relevant set of inflections. No other words can take these inflections, and every instance of an inflecting verb must take one or more of them.<sup>5</sup> The classes of inflecting verbs in Kimberley languages are always relatively small, with from about ten (Bunuba) to a several hundred members (Bardi, Nyulnyul, Ngarinyin).

Uninflecting verbs do not take inflections, and permit little in the way of morphological modification. Usually, they can take just a few morphemes specifying something about the temporal make-up of the event – for instance that it involves continuous activity. Reduplication (repetition) is normally permitted; this usually signifies repetition of the event. An uninflecting verb usually occurs together with a following inflecting verb, in a construction called the COMPOUND VERB CONSTRUCTION. The class of uninflecting verbs in most Kimberley languages is quite large (usually much larger than the class of inflecting verbs) and is always open. Verbs borrowed from other languages normally go to this part-of-speech rather than to inflecting verbs.

One of the few exceptional languages is Gooniyandi, with a single class of verb roots and stems. These do not admit inflections, and derive historically from uninflecting verbs; what used previously to be inflecting verbs are no longer words: they have become verbal classifiers, though they have not yet reduced to inflections (see §8.1 and §8.4).

Adverbs modify verbs, specifying some characteristic of the performance of an event. They often occur in plain root form, though some admit the attachment of a few (never all) postpositions. Four subtypes can be distinguished: MANNER adverbs, TIME adverbs, SPATIAL adverbs, and FREQUENCY adverbs.<sup>6</sup>

Manner adverbs indicate the manner in which an event was performed, and usually include words such as ‘quickly’, ‘slowly’, ‘hard’, ‘clumsily’, and so forth.

Time adverbs provide information about when or for how long an event occurred, and include words for seasons, parts of the day, periods of time, for example ‘for a short time’, ‘for a long time’; and ‘shifters’ – terms without fixed reference, that specify time in relation to a centre, usually the time of speaking – such as ‘before’, ‘today’, and ‘later’.

Kimberley languages generally have large sets of spatial adverbs, specifying something about the location, direction, orientation, extent, or proximity of an event. All have adverbs for the cardinal directions north, south, east, and west, and for the vertical directions up and down; these are frequently used in speech (see §9.5).<sup>7</sup> These adverbs often have different forms according to whether a location or direction is being referred to. Most languages located near large rivers have terms for ‘upstream’ and ‘downstream’. Other spatial adverbs include shifters such as ‘near’, ‘far’, ‘this way (towards here)’, ‘that way (away from here)’, ‘ahead, in front’, ‘middle’, ‘behind’, ‘across’, ‘through’, ‘inside’, ‘outside’, and so forth.

Frequency adverbs indicate the number of times an event occurred. Generally they are formed by adding a morpheme to nominals specifying numbers ‘one’, ‘two’, etc., to get ‘once’, ‘twice’, etc.

Particles, interjections and ideophones usually permit little, if any, morphological modification, and almost always occur in plain root form.

Particles (sometimes called sentence adverbs) usually number around about twenty, and include words like ‘not’, ‘don’t’, ‘maybe’, ‘again’, ‘still’, ‘already’, ‘always’, ‘mistakenly’, and ‘in return, in retribution’. These modify the meaning of the whole sentence – actually, clause: see next section – rather than just the verb, as do ordinary adverbs. Some languages also have interrogative particles indicating that the sentence is a question:

- (5.8) *nganyji milakarrin-ngay*  
 INTER you:are:hearing-me  
 ‘Can you hear me?’

Nyulnyul

Interjections and ideophones usually make up complete utterances by themselves. Not infrequently they have unusual phonological properties, like

Gooniyandi  $\Lambda\Lambda$  ‘OK’ (the small circle indicates lack of voicing) and  $n?n?$  and  $\Lambda?\Lambda?$  ‘yes, that’s right’ (where ? indicates the glottal stop – as can be heard in the pronunciation of *butter* in Cockney English – which does not occur in regular words).

Interjections include ‘yes’, ‘no’, ‘let’s go’, ‘here you are (take this)’, ‘hey’, ‘eh?’, ‘goodbye’, ‘sorry’, and so on; they usually occur in their own intonation unit (§4.6).

Ideophones are words that mimic sounds characteristically associated with animals or events. Many Kimberley languages have rich sets of ideophones, especially for mimicking noises of animals; those mimicking events are usually fewer in number, though some languages have rather many. Wangkajunga is such a language, and speakers frequently spice up their speech with these words. Like interjections, ideophones can have unusual phonological properties, and are often uttered in their own intonation unit, with a distinctive voice quality.

Some languages have other parts-of-speech, usually minor in the sense that they have few members, though they may be important in the grammar. For example, most Kimberley Pama-Nyungan languages have catalysts (sometimes called auxiliaries), a small class of words that occur in second position in a sentence, and serve as the base to which pronoun enclitics are attached. Catalysts usually indicate something about how the sentence is to be taken or understood, and express meanings that are also covered by particles.<sup>8</sup> Gurindji has five catalysts, including one indicating that the utterance is a statement, and another indicating that it is false.

Various languages have conjunctions, the most common being ‘and’. Kukatja, like other Western Desert varieties, has a few conjunctions, including *kamu* ‘and’ (which can occur either as a free word or enclitic), *katji* ‘when, if’, and *miku* ‘so that’. The following illustrates the use of *katji* ‘when, if’, and the enclitic form of *-kamu* ‘and’:

- (5.9) *purtakarti wumulwumulpa punkala purtakarti katji kuntukuntu*  
 left:side developing:organ falling left:side when engorged  
*nyinama parntanypa-kamu* Kukatja  
 sitting old:woman-and  
 ‘Her developing breast on the left side droops when it becomes filled  
 with milk. [This is] also [the case with] an elderly woman.’

Many languages (both with and without their own distinct set of conjunctions) have borrowed *and* – often as *nd* – from English.

It is not unusual to find a few words that are difficult to categorise that show some characteristics of a particular part-of-speech, but otherwise have unique behaviour. The word for ‘know, knowledgeable’ or ‘believe’ is such a word in various languages. In Nyulnyul, for instance, it takes nominal prefixes, as in *ngamungk* ‘I believe’, *nyi-mungk* ‘you believe’, *ya-mungk* ‘me and you believe’, etc. However, *-mungk* ‘believe’ does not occur in the usual grammatical environments

of nominals (e.g. it does not occur with determiners), and shows little similarity in behaviour with other nominals that take prefixes, most of which designate parts of the body. Generally, it behaves like a particle meaning ‘believe mistakenly’ (as in (5.10)), less often like a verb (as in (5.11)).

- (5.10) *nga-mungk ilarrjalan-ngay arri ilarrjalan-ngay*  
 I-know they:might:have:seen-me no they:might:have:seen-me  
 ‘I thought they would have seen me, but they didn’t.’ Nyulnyul

- (5.11) *wali-in irr-mungk juy-in mindam-ø ngay-in arriyangk*  
 everyone-by they-believe you-by you:hit-him I-by no  
 ‘They all think you hit him, but I don’t.’ Nyulnyul

Kimberley languages, like Australian languages generally, do not have articles (words like *a* and *the*) or prepositions.

### 5.3 Beyond the word: phrases, clauses, and sentences

Utterances in any language usually consist of a number of words in sequence. The largest grammatical unit corresponding to a single utterance is the SENTENCE; nothing larger shows grammatical structure. Sentences consist of one or more CLAUSES that usually occur in sequence, one after another. In turn, clauses consist of PHRASES and words, phrases being groups of words of intermediate size: the smallest grammatical units made up by words. Let us consider an example, this time from a Pama-Nyungan language.

- (5.12) *ngaju-nggu nga-rna miyanggi man-gu nyila mawun* Jaru  
 I-by statement-I ask get-for that man  
*nga-yila yaa-rru yiri mawun-nyunga*  
 statement-to:me put-for name man-from  
 ‘I will ask that man to give me an Aboriginal name.’ (More literally: ‘I will ask that man so that he will put an Aboriginal name alongside me.’)

(5.12) is a single sentence, consisting of two clauses, one per line. The first clause begins with *ngaju* ‘I’ marked by *-nggu* ‘by’, which indicates that the speaker is the doer of the action, the SUBJECT. The next word is a catalyst; it serves as the base to which the pronoun enclitic *-rna* ‘I’ is attached, and tells us that the clause is a statement rather than a question, in which case *ba ~ wa* would have been used instead.

Following the catalyst comes the uninflecting verb *miyanggi* ‘ask’; this, together with the following inflecting verb MA- ‘get’, forms a compound verb construction meaning ‘will ask’. The next two words – *nyila* ‘that’ and *mawun* ‘man’ – go together to form a NOUN PHRASE, a group of words that go together to form

a grammatical unit that refers to an entity. They specify who the action is done to, the OBJECT. This noun phrase (unlike the subject) does not take a case-marker.

The second clause is formed in a similar way, except that the subject noun phrase has been omitted.<sup>9</sup> The first word is the catalyst *nga* again, telling us that the clause is another statement;<sup>10</sup> attached to it is a different pronoun enclitic, this time indicating that the speaker is advantaged by the event – benefits from bestowal of the name. Following the catalyst is the inflecting verb *yaa-*, which has a suffix indicating ‘for’. The last two words again belong together, and form another noun phrase, the object of the second clause.

Both clauses in (5.12) are TRANSITIVE: they have a subject and an object. Even if one or both noun phrases are omitted, the subject and object are still there, and a hearer would understand that the second clause has a subject, the person responsible for the assignment of the name to the speaker – and that it is the man referred to in the first clause. Not all clauses, however, have a subject and an object: (5.13) has just a subject; there is no object:

- (5.13) *mawun nyinang-an bija-ngga yuga-ngga* Jaru  
 man sit-present bed-on spinifex-on  
 ‘A man is sitting on a spinifex bed.’

Clauses like this are called INTRANSITIVE. Basically, transitive clauses refer to events involving transfer of activity from one thing to another; one thing (often a human being or animal) acts on something else. Intransitive clauses refer to events without such transfer of activity: the activity is ‘contained’ within the subject, who simply does something, not to anyone or anything else.

The postposition *-nggu* ‘by’ does not occur on the subject of (5.13); it goes only on subjects of transitive clauses in Jaru, not on subjects of intransitive clauses, which go unmarked, like objects of transitive clauses. Morphemes like *-nggu* ‘by’ that mark only transitive subjects are called ERGATIVE case-markers, and languages that have them are ergative languages. Except for Worrorrnan and Jarrakan languages, most Kimberley languages are ergative.

Transitive and intransitive clauses are two fundamental clause types presumably found in all human languages. Kimberley languages have in addition one or more other clause types (see §10.3.2).

The first clause of (5.12) is the main clause, the second, a subordinate clause explaining the reason why the speaker will do the first action. The verbs in both clauses have the same suffix. But in the first it indicates that the event will happen in the future, whereas in the second it indicates that the clause is a subordinate clause of purpose.

The first clause contains a compound verb construction, while the second clause has just an inflecting verb, without an accompanying uninflecting verb. Inflecting verbs alone will be called SIMPLE VERB CONSTRUCTIONS; the term VERB PHRASE is used for either type of verbal construction, simple or compound.<sup>11</sup>

I have spoken of transitive and intransitive *clauses* not verbs, as in many descriptions of Australian languages. This is because generally in Kimberley languages verbs – inflecting verbs, uninflecting verbs, and compound verb constructions – do not fall neatly into transitive and intransitive classes. A not insignificant number of verbs (of each type) can occur in both transitive and intransitive clauses, with no morphological marking of the difference.

The clauses that make up a sentence typically occur separately and sequentially, as in (5.12). They are often uttered on their own intonation contour or contours. Mixing of words from different clauses is uncommon (except in quotations – §10.5.3).

Within clauses in most languages, however, ‘word’ order is quite free – words can be put in almost any order with little effect on meaning. There are a few provisos. First, in Pama-Nyungan languages such as Jaru, the catalyst is restricted to either second or first position in the clause. Otherwise, the main positionally restricted words are conjunctions, which usually occur in initial position. But amongst the main parts-of-speech few restrictions exist.

Second, phrases are generally respected: the words of a noun phrase or verb phrase usually remain together, although their position within the clause is not fixed. Moreover, the order of words in phrases is usually more restricted than in clauses. Even there, however, there is room for some variation, and most languages permit a limited amount of splitting up of the words of phrases. Occasionally in a compound verb construction the uninflecting and inflecting verbs are separated by other words, and/or occur in reverse order. And sometimes two nominals belonging to the same noun phrase are separated by other words, in which case both are usually marked by a case-marking postposition (or suffix), as in (5.14) – see §12.2.<sup>12</sup>

- (5.14) *yalu-nggu lan-i mawun-du jaji yambi-gu Jaru*  
 that-by spear-past man-by kangaroo big-by  
 ‘That big man speared a kangaroo.’

The three phrases that make up this clause – *yalu-nggu mawun-du yambi-gu* (that-by man-by big-by) ‘by that big man’, *lan-i* (spear-past) ‘speared’, and *jaji* ‘kangaroo’ – can be put in any order without changing the meaning in terms of who did what to who: it remains ‘the big man speared the kangaroo’. This freedom is possible because the case-markers and pronoun enclitics tell us who is doing what to who; word order is not needed for this purpose, as in English. This does not mean that there are not preferred word orders, or that word order carries no meaning whatever (see §10.4).

Another characteristic of clauses in Kimberley languages is that they are often highly elliptical. It is common for subject and/or object (and other) noun phrases to be omitted, and for a clause to consist of a verb phrase alone, or perhaps together with an adverb, a particle, or a noun phrase referring to a place.

### Further reading

Numerous introductory textbooks provide good basic discussions of the fundamental notions of morphology and syntax, and can profitably be consulted by readers without a solid background in linguistics. Bolinger (1975: chs 5 and 6), Fromkin *et al.* (1990: chs 4 and 5), and Hudson (2000: chs 4 to 6) are recommended; the last two include data analysis problems. For discussion of parts-of-speech in Australian Aboriginal languages see Dixon (1980: ch. 9); this has, however, a strong Pama-Nyungan bias, and defines parts-of-speech by simple morphological criteria. For different approaches see McGregor (1990: 140–1) (specifically Gooniyandi) and Hengeveld (1992) (a cross-linguistic investigation). Dixon (1980), Blake (1987), and Yallop (1982) provide information on grammatical aspects of Australian languages. These works also treat transitivity as a verbal feature that admits just two values, transitive and intransitive. A growing literature challenges both views – for example, Austin (1982, 1997a), McGregor (1992, 1999a, 2002b), and Evans (2000). Although now dated, Dixon (1976) contains much information on grammatical categories in a variety of languages. It is also worth looking at grammars of particular languages; the five volumes of Dixon and Blake's *Handbook of Australian languages* contain short, high quality descriptions of various languages, though only two (both in Volume 5) are non-Pama-Nyungan.



## PRONOUNS AND DETERMINERS

### 6.1 Person and number systems

Most Kimberley languages, like Australian languages generally, make more distinctions in their pronouns than does English. All the languages have distinct singular (referring to one individual) and non-singular (referring to more than individual) pronouns in all persons. Unlike standard English, no language has a single form ‘you’ covering any number of hearers. Many languages also have DUAL forms, specifying that two persons or things are being referred to; some languages have TRIAL form indicating three, and/or a PAUCAL indicating a few (three to about ten). Dual, trial, and paucal pronouns are usually formed from the non-singular form by adding a suffix.

In the first person, many Australian languages make distinctions not only in terms of number, but also depending on whether or not the addressee (i.e. the hearer) is included: that is, there are different words for ‘we’ and ‘us’ depending on whether or not the addressee is one of us. So if I wanted to tell you ‘We will go to the movies tomorrow’ in an Aboriginal language, I would use a different word depending on whether you were included in the outing. If you are included, the category is called first person INCLUSIVE (since you are included); otherwise, it is referred to as EXCLUSIVE (because you are excluded). Many languages in the Kimberley make such a distinction. As we will see, however, some systems are organised according to different principles; these still generally specify whether the hearer is included or excluded.

Third person pronouns are those that refer to individuals other than the speaker and hearer, like *he*, *she*, *it* and *they*. It has often been observed that there are important differences between first and second person pronouns on the one hand, and third person pronouns on the other (Benveniste 1946/1971). Indeed, some languages do not have third person pronouns at all, instead using determiners (words like *this*, *that*, etc.). Most Kimberley languages, however, have distinct third person pronouns, singular and non-singular – although it is not always easy to separate them from determiners.

The gender distinction found in English third person singular pronouns between male (*he*, *him*), female (*she*, *her*), and neuter (*it*), is not made in

Nyulnyulan or Bunuban languages, or in any Pama-Nyungan language of the greater Kimberley region. In these languages, a single word can mean ‘he’, ‘she’ or ‘it’; this is the case, for example, for Jaru *nyandu*. In Worrorran and Jarrakan languages, however, such distinctions are made. These languages have genders or noun classes (see §7.4). Worrorran languages distinguish between four and six different genders, each with a separate third person pronoun, while Jarrakan languages distinguish just two (masculine and feminine).

In the following three subsections we discuss the main systems of pronouns found in Kimberley languages, beginning with the widespread and best-known inclusive/exclusive systems.

### 6.1.1 *Inclusive/exclusive systems*

Inclusive/exclusive pronoun systems are found in the Pama-Nyungan languages of the southern and eastern fringes of the Kimberley region, in the Worrorran language of the northern Kimberley, and in the Jarrakan languages of the eastern Kimberley. Table 6.1 shows the paradigm for Walmajarri pronouns.

Notice that the first person singular pronoun is classified as an exclusive form; this is because as a singular category it cannot include the hearer as well as the speaker. The first person dual exclusive designates the speaker plus one other person, not the person being spoken to – that is, ‘me and him’ or ‘me and her’, but not ‘me and you’. The first person dual inclusive designates the speaker plus the hearer: ‘me and you’. The plural exclusive indicates the speaker plus at least two others, excluding the hearer: ‘me and them, but not you’; the plural inclusive indicates the speaker, the hearer, and at least one other person.

The first-person singular forms, *ngaju* and *ngaji*, are typical for Australian languages; most languages (Pama-Nyungan and non-Pama-Nyungan) show a very similar form. Indeed, Dixon (1980: 344) and Blake (1988: 6) reconstruct the proto-Australian first person singular pronoun as *\*ngay*. Other forms found in many Pama-Nyungan languages include *ngali* in the first person dual and/or inclusive, *ngana* in the plural and/or exclusive, and *nyurra* in the second person plural. The second person singular *nyuntu* also is quite widespread in Pama-Nyungan languages bordering on the Kimberley.

Table 6.1 The Walmajarri free personal pronouns

		<i>Singular</i>	<i>Dual</i>	<i>Plural</i>
1	EXC	<i>ngaju ~ ngaji</i>	<i>ngajarra</i>	<i>nganimpa ~ nganampa</i>
	INC		<i>ngalijarra</i>	<i>ngalimpa</i>
2		<i>nyuntu</i>	<i>nyurrajarra</i>	<i>nyurrawarnti</i>
3		<i>nyantu</i>	<i>nyantujarra</i>	<i>nyantuwarnti</i>

Source: Hudson (1978: 85).

Table 6.2 Miriwoong personal pronouns

		<i>Singular</i>	<i>Dual</i>	<i>Plural</i>
1	EXC	<i>ngayoo</i>	<i>yoowoorrooboo</i>	<i>yoowoorroo</i>
	INC		<i>yarrooboo</i>	<i>yarroo</i>
2		<i>nyengoo</i>	<i>yayiboo ~ yayimeleng</i>	<i>yayi</i>
3	MASC	<i>nawoo</i>	<i>nenggerraboo</i>	<i>nenggerroo</i>
	FEM	<i>ngaloo</i>	<i>nawooboo ~ boorrooboo</i>	<i>boorroo</i>
			<i>ngaleboo ~ boorrooboo</i>	<i>boorroo</i>

Source: Kofod (1978: 47–8), adapted to current orthography.

Table 6.3 Worrorra personal pronouns

		<i>Singular</i>	<i>Dual</i>	<i>Trial</i>	<i>Plural</i>
1	EXC	<i>ngayu</i>	<i>arrerndu</i>	<i>arringkurri</i>	<i>arri</i>
	INC		<i>ngarrerndu</i>	<i>ngarringkurri</i>	<i>ngarri</i>
2		<i>ngunju</i>	<i>nyirrerndu</i>	<i>nyirringkurri</i>	<i>nyirri</i>
3	MASC	<i>awa</i>	<i>awaarndu</i>	<i>awoorri</i>	<i>arrka</i>
	FEM	<i>nyangka</i>	<i>awaarndu</i>	<i>awoorri</i>	<i>arrka</i>
	NEUT <sub>K</sub>	<i>kawa</i>	<i>kawaarndu</i>	<i>kawoorri</i>	
	NEUT <sub>M</sub>	<i>mawa</i>	<i>mawaarnduma</i>	<i>mawoorrima</i>	

Source: Adapted from Clendon (2001: 236–7).

For comparison, consider the pronouns in two non-Pama-Nyungan languages, Miriwoong and Worrorra – representative of the Jarrakan and Worrorran families – shown in Tables 6.2 and 6.3. The strongest resemblance between the pronouns of these languages and Walmajarri lies in the first person singular forms, which are identical except that the former have a *y* where the latter has a *j*. The only other notable resemblance involves the second person non-singular: *nyirri* in Worrorra and *nyurra* in Walmajarri.

A few comments are called for. First, in Miriwoong the contrast between inclusive and exclusive in the first person non-singular is optional: *yoowoorroo* can be used instead of *yarroo* and *yayi*, for both first person inclusive and exclusive. Second, both languages distinguish genders (or noun classes): two in Miriwoong, four in Worrorra. Both distinguish masculine (MASC) from feminine (FEM); Worrorra also distinguishes two neuters – two types of ‘it’ (see §7.4), glossed NEUT<sub>K</sub> and NEUT<sub>M</sub> after the first consonant of the pronoun. Third, the genders are not distinguished in the third person plural forms. However, it is possible to make the distinction in the dual number in Miriwoong by adding a suffix to the appropriate third person singular pronoun. In Worrorra the two neuter genders are distinguished in the dual and trial forms – again by adding a suffix to the appropriate third person singular pronoun – though the masculine–feminine contrast is not made.<sup>1</sup> In both languages the plural form can be used instead

Table 6.4 The Kriol personal pronouns

		<i>Singular</i>	<i>Dual</i>	<i>Plural</i>
1	EXC INC	<i>ai ~ a</i>	<i>mindupala</i> <i>minyu</i>	<i>mela ~ mipala</i> <i>wilat</i>
2		<i>yu</i>	<i>yundupala</i>	<i>yupala</i>
3		<i>i</i>	<i>dupala</i>	<i>dei ~ olabat ~ ol</i>

Source: Hudson (1983: 43–5).

(optionally followed by the dual suffix in Miriwoong), if, for example, the gender of the group is unknown, irrelevant, or mixed. Fourth, no plural form is given for the neuters in Worrorra, since inanimates are normally referred to by the third person singular pronouns regardless of number.

As shown by Table 6.4 the post-contact language Kriol also shows an inclusive/exclusive system,<sup>2</sup> although the forms are all constructed from English words, mainly pronouns and number words (e.g. *du* comes from *two*, *lat* from *lot*).

### 6.1.2 Four person systems

A different system is found in Nyulnyulan languages, where there are four first person pronouns: a singular (speaker), a dual inclusive (speaker plus hearer), a plural exclusive (speaker plus one or more others, not the hearer), and an inclusive form for more than two individuals (speaker plus hearer plus one or more others). In this system, the dual inclusive behaves like a singular form. It cannot take the dual suffix in Eastern Nyulnyulan languages: for instance, in Nyikina *yayoo* ‘me and you’ cannot have the ‘dual’ marker *-mirri* attached to it. *-Mirri* can, however, be attached to the first person plural inclusive *yarrjoo* to designate first person inclusive trial – that is, the speaker, the hearer, and one other person.

The traditional contrast between inclusive and exclusive in the first person, and number categories singular, dual, and plural does not provide a good analysis of these systems. A better analysis is possible in terms of a person contrast between first and first plus second, and number categories minimal and augmented. A MINIMAL category is one that contains the smallest number of individuals consistent with the category; an AUGMENTED category is one that involves additional members that could be removed without changing the category. So *yayoo* ‘me and you’ in Nyikina represents the minimal number in the first plus second person category since if one individual was removed we would no longer have a first plus second person. *Yarrjoo* is the corresponding augmented form, representing the addition of one or more persons to the speaker plus hearer pair. Adding *-mirri* specifies that precisely one extra individual is included, and thus it is better seen as a marker of UNIT AUGMENTED (augmented by one) than of dual number. For other person and number combinations, augmented amounts to the same thing as plural, unit augmented to dual.

Table 6.5 The four person analysis of Nyikina pronouns

	<i>Minimal</i>	<i>Unit augmented</i>	<i>Augmented</i>
1	<i>ngayoo</i>	<i>yarrkamirri</i>	<i>yarrka</i>
1 and 2	<i>yayoo</i>	<i>yarrjoomirri</i>	<i>yarrjoo</i>
2	<i>joowa</i>	<i>koorrkamirri</i>	<i>koorrka</i>
3	<i>kinya</i>	<i>yirrkamirri</i>	<i>yirrka</i>

Source: Stokes (1982: 154), adapted to the modern orthography.

Table 6.5 sets out the forms of the free pronouns in Nyikina according to this four person and three number system.<sup>3</sup>

Nyikina also has a demonstrative *kinya* ‘this, that’, identical in form to the third person minimal pronoun. We know that these are different words because they have different possessive forms: *kinyjina* for the pronoun, and *kinya-yi*, involving the regular possessive-marker *-yi*, for the demonstrative (Stokes 1982: 157). The situation is not as clear-cut in all Nyulnyulan languages, and the corresponding form (normally based on *kinya* or *kinyingk*) has uncertain status as pronoun or demonstrative in some languages (see McGregor 1996b: 23).

### 6.1.3 A different type of inclusive/exclusive system

The two Bunuba languages Gooniyandi and Bunuba show a unique pronominal system, of a kind that has not been found in any other language in the world. This system has three distinct first person forms:

- (i) a singular form designating just the speaker, ‘I, me’;
- (ii) a non-singular form designating either (a) the speaker and hearer, or (b) the speaker and one or more other persons excluding the hearer – that is, ‘me and you’, ‘me and him or her’, or ‘me and them’ (in traditional terms, first person dual inclusive and exclusive, and first person plural exclusive); and
- (iii) and a second non-singular form designating the speaker, the hearer, and at least one other person – that is ‘me and you and other(s)’ (in traditional terms, first person plural inclusive).

There are also two second and two third person forms, a singular and a non-singular form for each. Further number distinctions are possible by adding either the dual or plural number-marking postpositions; these are, however, optional. Both dual and plural number-markers can be added to category (ii) first person pronouns, while only the plural can be added to category (iii) first person pronouns.

This system does not fit into either a traditional inclusive/exclusive pattern, or into a four person Nyulnyulan system, as the reader can easily verify. One way the system can be analysed is as a special type of inclusive/exclusive system, that differs from the traditional system in terms of who is included or excluded.

Whereas in the traditional system it is the hearer(s) that is/are included or excluded, in the Bunuban system it is the hearer plus one or more others. The way this works is as follows. We begin by defining [+ hearers] as:

$$\begin{bmatrix} + \text{ addressee} \\ - \text{ minimal} \end{bmatrix}$$

where minimal is defined as per the previous section.<sup>4</sup> The two non-singular first person pronouns of the Bunuban languages can be now characterised as follows:

$$yaarri \text{ (Bunuba)}, yaadi \text{ (Gooniyandi)} \quad \begin{bmatrix} + \text{ speaker} \\ + \text{ hearers} \end{bmatrix}$$

$$ngiyirri \text{ (Bunuba)}, ngidi \text{ (Gooniyandi)} \quad \begin{bmatrix} + \text{ speaker} \\ - \text{ hearers} \end{bmatrix}$$

This correctly represents the fact that *yaadi* must refer to the speaker, hearer, plus at least one other person. What happens with *ngidi* is that the complex feature [hearers] is negated. That is, we negate the following conflation of features:

$$\begin{bmatrix} + \text{ addressee} \\ - \text{ minimal} \end{bmatrix}$$

Basic logic tells us that this negation admits three possibilities:

$$\begin{bmatrix} - \text{ addressee} \\ + \text{ minimal} \end{bmatrix} \quad \text{or} \quad \begin{bmatrix} - \text{ addressee} \\ - \text{ minimal} \end{bmatrix} \quad \text{or} \quad \begin{bmatrix} + \text{ addressee} \\ + \text{ minimal} \end{bmatrix}$$

The first feature combination designates a minimal third person category, namely a single person other than the speaker or addressee. Combining this with [+ speaker], we get the traditional category of first person dual exclusive. The second combination represents the augmented third person category, and when combined with [+ speaker] gives the equivalent of first person plural exclusive. Finally, the third feature combination obviously characterises, in combination with [+ speaker], the traditional first person dual inclusive.

This analysis shows that there actually *is* a system behind the Bunuban pronouns: it is a type of inclusive/exclusive system, in which the complex feature [hearers] takes either a + or a - value. It is not just a 'reduced' version of either the standard inclusive/exclusive or the minimal/augmented system, in which for instance two forms have accidentally fallen together; the distribution of *ngidi* across three traditionally recognised categories is due to the range of interpretations of the feature combinations.

## 6.2 Case systems

In English, most pronouns have different forms depending on their role in the sentence. The forms *I*, *we*, *he*, and *she* are used when the pronoun is subject, *me*, *us*, *him* and *her* when it is object, and *my*, *our*, *his* and *her* when it indicates a possessor. A similar thing happens in most Kimberley languages: different forms are used depending on whether the pronoun is subject, object, indirect object, or whatever. Sometimes these different forms are constructed regularly, in the same way as for nouns, using the same suffixes. For instance, in Wangkajunga possessive forms of the pronouns are formed by adding the dative case suffix *-ku* ‘for’ (see §7.2) to the pronoun root, as in *ngayu-ku* (I-for) ‘my’ and *nyuntu-ku* (you-for) ‘your’, this being the same suffix as is added to nouns (e.g. *wati-ku* (man-for) ‘the man’s’, *jiji-ku* (child-for) ‘the child’s’). In some languages, there are irregularities: for instance, different roots or case suffixes may be used for certain cases. Sometimes the range of case suffixes differs slightly for pronouns and nouns, as in Jaru, where pronouns lack instrumental case (‘with, using’) as well as one of the dative cases (‘for’); on the other hand, they have an extra ablative case (‘from’) (Tsunoda 1981: 64).

One important difference in the case-marking of nouns and pronouns is found in many Australian languages. Nouns usually have an ergative system of case-marking: when it is subject of a transitive clause a special form is used that is different from the form used for the subject of an intransitive clause and object of a transitive clause (see §5.2 and §5.3). Pronouns seldom follow this pattern; instead they often have one form for subjects, both transitive and intransitive, and a different form for the object of a transitive clause, as in English (Dixon 1980: 287–91; Silverstein 1976). Almost all Kimberley languages are unusual in this respect, and pronouns and nouns usually behave alike. Languages with ergative case-marking of nouns – Pama-Nyungan, Nyulnyulan, and Bunuban languages – also have ergative marking of pronouns.<sup>5</sup> Thus, in Wangkajunga the first person singular pronoun *ngayu* takes the ergative marker *-lu* when it is the subject of a transitive clause (example (6.1)), but no suffix when it is subject of an intransitive clause (example (6.2)) or the object of a transitive clause (example (6.3)).<sup>6</sup> It behaves just like a noun.

- (6.1) *wati-lu* / *ngayu-lu-rna* *jiji* *nyangu* Wangkajunga  
 man-ERG I-ERG-I child saw  
 ‘The man/I saw the child.’
- (6.2) *wati* / *ngayu-rna* *yanu* Wangkajunga  
 man I-I went  
 ‘The man/I went.’
- (6.3) *ngayu-rni* / *jiji* *wati-lu* *nyangu* Wangkajunga  
 I-me child man-ERG saw  
 ‘The man saw me/the child.’

Similarly, in languages that do not have ergative marking for nouns – Worroran and Jarrakan languages – there is no ergative marking of pronouns either.

In Pama-Nyungan languages pronouns employ mostly the same case-marking suffixes nouns; each pronoun has a single root form, and the case suffix is attached to it. In a number of non-Pama-Nyungan languages, however, two distinct root forms are found for each pronoun: a CARDINAL form that is used when the pronoun is subject or object; and a POSSESSIVE form, used when it indicates a possessor. Possessive roots may serve as bases on which other forms are constructed, such as emphatic pronouns in Gooniyandi and Nyulnyul. Even when a non-Pama-Nyungan language does not have two distinct sets of root forms it is usual for there to be irregularities in the formation of possessive pronouns.

Possessive pronouns follow, with a few wrinkles, the same person and number system as the cardinal pronouns. Table 6.6 displays the possessive pronouns in the same four non-Pama-Nyungan languages whose cardinal forms were discussed in §6.1. (Number suffixes and the like have been omitted in the interests of clarity.) In order to represent the different systems in the same table, I have adopted the convention – a modified version of the ‘metalanguage’ of Greenberg (1988) – of using numbers to represent persons: 1 for speaker (a unique individual); 2 for addressee (also unique);<sup>7</sup> and 3 for any single individual other than the speaker or hearer.

Table 6.6 Possessive pronouns in four non-Pama-Nyungan languages

	<i>Miriwoong</i>	<i>Worrora</i>	<i>Nyikina</i>	<i>Gooniyandi</i>
1	<i>ngaya-</i>	<i>ngayanangka-</i>	<i>ngajanoo</i>	<i>ngarragi</i>
13 ...	<i>yuwurriya- ~ yarriya-</i>	<i>arrkanangka-</i>	<i>yajarra</i>	<i>ngirrangi</i>
			<i>jaw(oo) ~ jarrajaw</i>	
12	<i>yayiya-</i>	<i>ngarrkanangka-</i>	<i>jayida</i>	<i>yarrangi</i>
123 ...				
2	<i>nyingiya-</i>	<i>ngunjanangka-</i>	<i>jiya</i>	<i>ngaanggi</i>
23 ...	<i>nengkerriya-</i>	<i>nyirranangka-</i>	<i>joongkarra</i>	<i>girrange</i>
3 masc	<i>nawiya-</i>	<i>inyjanangka-</i>		
3 fem	<i>ngaliya-</i>	<i>nyangkanangka-</i>	<i>kinyjina</i>	<i>nhoowoo</i>
3 neut <sub>g</sub>		<i>kunangka-</i>		
3 neut <sub>m</sub>		<i>manangkam-</i>		
33 masc/fem		<i>anangkarndu-</i>		
33 neut <sub>g</sub>	<i>boorriya-</i>	<i>kunangkarndu-</i>	<i>yijirra</i>	<i>birrange</i>
33 neut <sub>m</sub>		<i>manangkarndam-</i>		
33 ...		<i>arrkanangka-</i>		



Combinations of the numbers are used to characterise the various possibilities. Three dots following 3 indicates any number of additional 3s, zero or more.

The hyphen at the end of the Miriwoong and Worrorra pronouns indicates that they are always followed by a suffix indicating the gender of the possessed item. In Miriwoong a possessive pronoun is followed by the masculine suffix *-ng* if the thing possessed is masculine, and by the feminine suffix *-ny* if it is feminine: *ngaya-ng bariye-ng* (my-MASC sibling-MASC) 'my brother'; *ngaya-ny bariyi-ny* (my-FEM sibling-FEM) 'my sister'.

The formation of the Miriwoong possessive pronouns is quite regular. Each has *-ya* suffixed to the cardinal pronoun, with the final *u* of the root changed to *i* everywhere except the first person singular, where it becomes *a*. This suffix, however, is not used on nouns to mark possession (on nouns it conveys an intensifying meaning).

Things are slightly less regular in Worrorra: although each possessive pronoun involves the regular possessive suffix *-nangka*, it is not always attached to the corresponding cardinal pronoun. In the singular pronouns it is, albeit with slight modifications to the shape of the cardinal root, except in the case of the third person singular masculine, where the root is different (it resembles a determiner root rather than the corresponding pronoun root). In the plural pronouns the final vowel of the cardinal form is lost, and is replaced by *-ka*, with the result that the first person plural exclusive and the third person plural have the same form.

Less regularity is found in Gooniyandi, and even less in Nyikina, and for these languages one would speak of separate cardinal and possessive pronouns. In Gooniyandi, the singular possessive pronouns are quite different from their cardinal counterparts, except in the first person, which shares the initial syllable *nga*. The plural possessive pronouns all have *rr* where the cardinal pronouns have *d*, and all involve an apparent possessive suffix *angi* (not found elsewhere in the language). In Nyikina, although there are obvious similarities between most of possessive pronouns and their cardinal counterparts, there is no system in the similarities.

The person and number systems in the Worrorra, Nyikina, and Gooniyandi possessive pronouns are precisely the same as in the cardinal pronouns. The possessive pronouns can be followed by the usual number-markers to further specify the number of the possessor (in Gooniyandi this must then be followed by the possessive marker *-yoo*).

In Miriwoong there are a few differences. The inclusive/exclusive distinction is not optional as it is in cardinal pronouns, and the plural *yoooorroo* is used only for the exclusive in the possessive pronouns. Furthermore, fewer distinctions are made in the third person non-singular than in cardinal pronouns. The third person dual possessive pronoun in Miriwoong can only be formed on the plural root, which means that the distinction between masculine and feminine duals can't be made. Another unusual feature is that possessive pronouns take the regular nominal dual suffix *-meleng* following the class-marking suffix, instead of the *-bu* of the cardinal pronouns.

Possessive pronouns are used to mark both ALIENABLE POSSESSION (ownership of property ('my spear', 'my coolamon', etc.), right of use of property (e.g. 'my (rented) house', 'his (borrowed) car'), kin relationships ('my father'), and so on) and INALIENABLE POSSESSION (roughly, possessions that are inherent to a person, such as parts of their body (e.g. 'my head')) – see §7.6.2. This is illustrated in the following examples:

- (6.4) *ngarragi thaarra* Gooniyandi  
 my dog  
 'my dog'

- (6.5) *ngaanggi thangarndi* Gooniyandi  
 your mouth  
 'your mouth', or 'your language'

In Gooniyandi, possessive pronouns do not just mark possession. They are also used whenever a case-marker (see §5.2 and §7.2) other than ergative ('by') or comitative ('with') is added to a pronoun. Thus, one says *ngarragi-yirra* (my-towards) rather than \**nganyi-yirra* (I-towards) to convey the meaning 'towards me'; *ngarragi-nhingi* (my-from) rather than \**nganyi-nhingi* (I-from) to mean 'from me'; *ngarragi-yoo* (my-for) rather than \**nganyi-yoo* (I-for) for 'for me'; and so forth. However, *nganyi-ngga* (I-by) is used to mean 'by me' and *nganyi-ngarri* (I-with) 'with me'. By contrast, in Nyikina (and other Nyulnyulan languages), any of the case-markers can be attached to the cardinal forms of the pronouns, as in for example *ngayu-ngana* (I-towards) 'towards me', and *ngaya-n* (I-at) 'at (or near) me'.

### 6.3 Bound pronouns

Pronouns are not always separate words. All Aboriginal languages traditionally spoken in the Kimberley and nearby regions had, in addition to pronoun words, also pronouns that could not stand alone as separate words. For example, the Wangkajunga word (that can be used as a complete utterance) *nyakurnanta* 'I'll see you' can be divided into four morphemes: the root *nya-* 'see'; the suffix *-ku* which indicates that the seeing will happen in the future; *-rna* 'I', indicating that the speaker will be doing the seeing; and *-nta* 'you', indicating that the hearer will be the one who is seen. The last two morphemes are pronouns, but they cannot occur independently, unattached to another word. You cannot say \**rna nyaku nta* (I will:see you); this would be completely ungrammatical. You could, if you wished, add separate words meaning 'I' and 'you', as in (6.6) – although this would sound somewhat unusual, perhaps pedantic.

- (6.6) *ngayu-lu-rna-nta nyuntu nyaku* Wangkajunga  
 I-ERG-I-you you will:see  
 'I will see you.'

Pronouns like *ngayu* and *nyuntu* are referred to as FREE PRONOUNS, since they make up separate words; pronouns like *-rna* and *-nta* are called BOUND PRONOUNS since they do not form separate words, but are bound to other words. Bound pronouns are generally obligatory, whereas free pronouns are usually not. The only Aboriginal languages in the Kimberley that do not have both bound and free pronouns are the post-contact varieties Pidgin English, Kriol, Aboriginal English, and Broome Pearling Lugger Pidgin; all pronouns are free in these languages.

In non-Pama-Nyungan languages, the bound pronouns include prefixes, suffixes, and/or enclitics (see §5.2) to verbs, and occasionally to some nouns; in Pama-Nyungan languages they are enclitics typically attached either to the first or to the second word of a clause, depending on the language. Pama-Nyungan languages do not have pronoun prefixes.<sup>8</sup> Bound pronouns usually derive historically from free pronouns (see §6.4).

Two notable features of bound pronouns in Kimberley languages are as follows. First, there is almost always one form for the subject of both transitive and intransitive clauses, and a different form for the object of transitive clauses. Even if nouns and free pronouns follow the ergative system of case-marking, bound pronouns do not. Second, bound pronouns occasionally have different person-number systems to free pronouns.

These two characteristics are exhibited by Nyulnyul, which, like other non-Pama-Nyungan languages of the Kimberley has pronoun prefixes to inflecting verbs (see §5.2). These prefixes indicate the person and number of the subject of the clause irrespective of whether it is transitive or intransitive:

- |       |   |          |
|-------|---|----------|
| (6.7) | <i>nga-ny-jid</i><br>1sgSUB-nasal-go <sup>9</sup><br>'I went' | Nyulnyul |
| (6.8) | <i>mi-ny-jid</i><br>2sgSUB-nasal-go<br>'You went'             | Nyulnyul |
| (6.9) | <i>nga-n-dam-jirr</i><br>1sgSUB-TR-hit-3pOBJ<br>'I hit them'  | Nyulnyul |

The prefix *nga-* indicates that the subject is the first person singular 'I', while *mi-* indicates that it is second person singular. There is no need to use the free pronouns *ngay* 'I' and *juj* 'you', unless for emphasis.

The person and number system of the pronoun prefixes in Nyulnyul (and other Western Nyulnyulan languages) does not make all of the distinctions that are made in the free pronouns. Whereas there are four different first person cardinal pronouns (1 minimal, 1 augmented, 1 and 2 minimal, and 1 and 2 augmented) there are just two prefixes, *nga-* 'I', and *ya-* 'we'. There are also pairs of singular

and non-singular prefixes for the second- and third-persons. When the subject is non-singular, the pronoun prefix must be followed (not necessarily immediately) by a further prefix *rr* indicating non-singular number. There is one exception: if the subject is the speaker plus hearer pair, this *rr* is not used. Thus, *ya-nga-rr-jid* means ‘we three or more went’, or ‘we two excluding you went’; to indicate that it was just me and you who went, *ya-ny-jid* would be used. The first person non-singular pronoun prefixes, that is, distinguish dual inclusive from everything else.

In Worrorran, Bunuban, and Jarrakan languages intransitive inflecting verbs take a pronoun prefix indicating the person and number of the subject, as in Gunin/Kwini *ngu-ma* (1sgSUB-do/say) ‘I did/said’, *nyarr-ma* (1plEXCSUB-do/say) ‘we did/said’, *ngarr-ma* (1plINCSUB-do/say) ‘we did/said’, etc. Jarrakan languages have a separate set of pronoun prefixes that are added to a small class of middle verbs, inflecting verbs that refer to speech, motion, or change of state. Thus compare the Miriwoong intransitive inflecting verb form *ga-ni-ya-yin* (3sgMASC SUB-sit-PA-CONT) ‘he was sitting’ with the middle form *woo-ma-ya* (3sgSUBMID-say-PA) ‘he said, he did’.

Things get more complicated in transitive verbs. The pronoun prefixes indicate not just the subject, but also the object. Gunin/Kwini has separate prefixes for subject and object, and these occur in a fixed order, object prefix before subject prefix. (The subject and object prefixes are mostly the same.) In *bu-nga-na* the prefix *bu-* indicates that the object is a human being, the prefix *nga-* that the subject is the speaker – thus the meaning is ‘I acted on him/her’. Compare *wu-nga-na* (it<sub>W</sub>-I-act:on) ‘I acted on it (something of the W class – a tree, plant, etc.) and *a-nga-na* (it<sub>A</sub>-I-act:on) ‘I acted on it (something of the A class – e.g. a dog or other animal). These two examples are quite straightforward. A complication is that sometimes the two pronouns are not easily separated. For instance, the expected form *mi-birr-na* (it<sub>M</sub>-they-act:on) ‘they act on it (something of the M class (e.g. land))’ does not occur; instead what we get is *mudna*. The first syllable of this word, *mud-*, results from coalescence of *mi* and *birr* and hardening of *rr* to *d* under the influence of the following nasal segment. (Similar phonological rules operate in many Kimberley languages, closely and distantly related.)

Another complication is that when the subject of a transitive clause is third person, its gender is not normally indicated. The same form – usually zero – is used regardless of gender: *ngin-ø-mira-ng* (me-he/she/it-took-past), *win-ø-mira-ng* (it<sub>W</sub>-he/she/it-took-past) ‘he/she/it took it (of the W class)’, *an-ø-mira-ng* (it<sub>A</sub>-it-took-past) ‘it (of the A class) took it’, and so forth.

The order of pronoun prefixes is not always as straightforward as in Gunin/Kwini. In many languages – including Gooniyandi, Bunuba, and Miriwoong – person and number, as well as case, must be taken into account. For instance, in Miriwoong a first person prefix always occurs first; a second person prefix occurs first if there is no first person prefix; otherwise, a third person object prefix comes first. There are two quirks: the third person feminine singular object prefix precedes the first person singular subject prefix; and when the subject is first person non-singular, or second person, gender of a third person object is not indicated.

It is sometimes difficult to divide inflecting verbs into component pronoun prefixes, roots, and other affixes, because of irregular allomorphs and phonological rules that reduce sequences of phonemes to a single phoneme. A complex system of rules may be required to account for the different person, number and tense forms, as in Gooniyandi (McGregor 1990: 99–119).

As mentioned at the beginning of the section, verbs in non-Pama-Nyungan languages generally take pronoun suffixes or enclitics as well as prefixes. In Nyulnyulan languages the object of a transitive verb is indicated by a pronoun enclitic: *-ngay* or *-ngayu* added to an inflecting verb indicates that the speaker is the object, as in *mindam-ngay* ‘you hit me’ in Nyulnyul, and *nangariny-ngayu* ‘it eluded me’ in Warrwa.

Nyulnyulan languages also have pronoun enclitics to verbs that indicate indirect objects (e.g. addressees in clauses of speaking), recipients, beneficiaries, and the like (see §10.3.2). These are different from object enclitics, and are usually referred to as OBLIQUE pronoun enclitics. The first person singular form is usually *-janu* or *-jan*: *ingirrij-jan* ‘they spoke to me’ in Nyulnyul; *jiny-janu* ‘he spoke to me’ in Warrwa, etc.

A verb in a Nyulnyulan language can normally take a single enclitic pronoun, either an object or an oblique form. Both *\*nganawulmana-yirr-jiya* (I:made-them-for:you) and *\*nganawulmana-jiya-yirr* (I:made-for:you-them) are ungrammatical in Warrwa. A choice has to be made between the object and oblique enclitic. Usually, the oblique enclitic wins out over the object enclitic. Hence, the most likely Warrwa utterance would be *nganawulmana-jiya* (I:made-for:you), leaving out the object enclitic – a separate word could be used to specify what was made. Bardi is an exception: a verb can have both an object and an oblique enclitic:

- (6.10) *ung-k-irr-igu-gurr-a-jan-irr* Bardi  
 3-FUT-aug-INTENS-make:catamaran-FUT-1minOBL-3minOBJ  
 ‘They will surely make them (the two sections of a catamaran) for me.’

Object pronoun enclitics in Nyulnyulan languages closely resemble free cardinal pronouns, whereas oblique enclitics resemble free possessive pronouns. In Western Nyulnyulan languages the enclitic pronouns make the same person and number distinctions as the free pronouns, even though the pronoun prefixes make fewer distinctions (see pp. 120–1). Table 6.7 shows the similarities in the forms of the various types pronoun in Warrwa. The pronoun prefixes to verbs clearly resemble the free cardinal pronouns, although not as closely as do the object enclitics. There can be little doubt that the enclitics come from free pronouns, perhaps quite recently. The prefixes are also likely to have come from free pronouns, though the differences in forms suggest that they are much older.

Worrorran, Bunuban and Jarraakan languages – in which object pronouns are prefixes (object enclitics are sometimes used in addition, usually for precision) – have enclitic oblique pronouns, which (as in Nyulnyulan languages) closely

Table 6.7 Pronoun forms in Warrwa

	Free cardinal	Prefixes subject	Enclitics		Free possessive
			Object	Oblique	
1	<i>ngayu</i>	<i>nga- ~ ka- ~ ya-</i>	<i>-ngay(u)</i>	<i>-janu</i>	<i>ngajanu</i>
13 ...	<i>yarra</i>	<i>nga- ~ ka- ~ ya-...-rr-</i>	<i>-yarr(a)</i>	<i>-jarra</i>	<i>jarra</i>
12	<i>yawu</i>	<i>ya-</i>	<i>-yawu</i>	<i>-jawu</i>	<i>jawu</i>
123 ...	<i>yadirr</i>	<i>ya-...-rr-</i>	<i>-yadirr</i>	<i>-jadirr</i>	<i>jadirr</i>
2	<i>juwa</i>	<i>mi- ~ wa- ~ nga-</i>	<i>-ju(wa) ~ -yu</i>	<i>-jiya</i>	<i>jiya</i>
23 ...	<i>kurra</i>	<i>ku- ~ wa</i>	<i>-kurra</i>	<i>-jungkur</i>	<i>jungkarra</i>
3	<i>kinya</i>	<i>ø ~ i- ~ ngi- ~ ku- ~ wi-</i>	<i>-ø</i>	<i>-jina ~ -yina</i>	<i>jina</i>
33 ...	<i>yirra</i>	<i>ngi- ~ i- ~ ku- ~ wi-...-rr-</i>	<i>-yirr(a) ~ -jirr</i>	<i>-jirra</i>	<i>jirra</i>

resemble the free possessive pronouns, and indicate indirect objects, recipients, beneficiaries, and the like.

About half the Nyulnyulan languages and all Worrorran languages also have pronoun prefixes and/or suffixes to a smallish number of nouns. These indicate the possessor of the entity, typically a part of the body, or kin relation. Usually the prefixes are very similar to pronoun prefixes to intransitive verbs, the suffixes to the oblique enclitics to verbs. (See §7.3 for further discussion.)

In Pama-Nyungan languages of the Kimberley region, bound pronouns are mostly enclitics attached to the first or second word of a clause; they are rarely attached exclusively to verbs, as in non-Pama-Nyungan languages. In Western Desert varieties such as Yulparija, Wangkajunga, and Kukatja they are attached to the first word of the clause, as in examples (6.1), (6.2), and (6.3). In Ngumbin and Yapa languages – including Jaru, Walmajarri, Ngarinyman, Malngin, and Warlpiri – they are normally attached to ‘catalysts’ (see §5.2) occurring in second position in the clause. This is illustrated by the following Jaru examples (from Tsunoda 1981: 103). (Occasionally they are attached to other words (Tsunoda 1981: 124–6).)

(6.11) *ngaju-nggu nga-rna-nggu nyundu nyangan* Jaru  
 I-ERG CAT-1sgSUB-2sgOBJ you see  
 ‘I look at you.’

(6.12) *nganinga ngawiyi nga-yi yani* Jaru  
 my father CAT-1sgOBL came  
 ‘My father came.’

(6.13) *nyundu nga-n-janunggula marni mawun-da jilawaja-la* Jaru  
 you CAT-2sgSUB-3plLOC talked man-LOC many-LOC  
 ‘You talked to a big mob of men.’

As these examples show, Jaru pronoun enclitics have four distinct case-forms: a subject form, an object form, an oblique form (almost everywhere the same as

the object form), and a locational form. Oblique pronoun enclitics indicate beneficiaries (persons who benefit or are affected by the action) and indirect objects (recipients), while locational enclitics indicate addressees and accessories (persons who serve as sources, locations and targets of the action). Similar four-way case systems are found in other Ngumbin and Yapa languages, including Walmajarri and Warlpiri, as well as in Western Desert varieties and Marrngu languages such as Nyangumarta and Karajarri.

Nyangumarta and Karajarri are among the few exceptional Kimberley Pama-Nyungan languages that have bound pronominals that attach exclusively to inflecting verbs, normally in final position, following inflections:

- (6.14) *nganarna-lu kanyji-rni-yirna-lu* Nyangumarta  
 1plEXC-ERG look:for-NFUT-1plEXCSUB-3sgOBL  
 ‘We all looked for it.’

- (6.15) *pirirri-lu ma-na-ø-ø-lu kuyi paliny-ja*  
 man-ERG get-PA-3sgSUB-3sgOBJ-3sgOBL meat 3sg-ABL  
 ‘The man got meat off him.’ Nyangumarta

- (6.16) *pala-nga lirrjal-ju-jirri partany-ju-jirri wurra-rna-pulu-lu*  
 that-LOC greedy-ERG-du child-ERG-du tell-NFUT-3duSUB-3sgLOC  
 ‘And those two greedy children said to him...’ Nyangumarta

Enclitic pronouns in Pama-Nyungan languages generally make the same person and number distinctions as free pronouns. In most languages the forms do not resemble the corresponding free pronouns very closely, or in regular ways; there are, however, a number of similarities that suggest an origin for at least some bound pronouns in earlier free pronouns. Non-singular forms often involve segments that might come from morphemes marking number, while locative forms often involve an identifiable case-marking suffix, sometimes the same as the locative suffix for nouns. Third person singular enclitics usually have zero form, except in the oblique and locational cases (see above).

Combinations of pronoun enclitics in Pama-Nyungan languages are restricted in various ways; it is beyond the scope of this book to discuss the constraints in detail. Suffice it to make the following remarks, which apply to a number of languages.

First, usually no more than two pronoun enclitics occur in sequence, although in a number of languages – for example, Jaru and Warlpiri – this is a tendency only, and it is not ungrammatical for three pronouns to occur in sequence; this is rare, however.

Second, the order of enclitics may depend on person (as in the case of prefixes in non-Pama-Nyungan languages – p. 121). In Jaru, for instance, first person pronouns usually precede second person pronouns, which precede third person pronouns. However, in some cases subject pronouns precede object, oblique and

locative pronouns. For instance, if second person (singular or non-singular) acts on first person non-singular, the second person subject pronoun always precedes the first person object pronoun.

Third, person deletion often occurs in imperatives. In Jaru imperatives, the second person pronoun *-n* is omitted, leaving only the number marker. This is illustrated by *yan-da-ø* (go-IMPER-sg) ‘you (singular) go!’, *yan-da-wula* (go-IMPER-du) ‘you two go!’, and *yan-da-lu* (go-IMPER-pl) ‘you lot go!’.

Finally, dual number replacement – replacement of a dual pronoun enclitic by the corresponding plural enclitic following another dual pronominal – is also frequent in Ngumbin and Yapa languages. Thus, in Jaru instead of (6.17) one says (6.18):

(6.17) \**ngajarra-lu*    *nga-liyarra-ngguwula*    *nyunbula*    *nyangan*  
 1duEXC-ERG    CAT-1duEXCSUB-2duOBJ    you:two    see  
 ‘We two (exclusive) see you two.’    Jaru

(6.18) *ngajarra-lu*    *nga-liyarra-nyurra*    *nyunbula*    *nyangan*  
 1duEXC-ERG    CAT-1duEXCSUB-2plOBJ    you:two    see  
 ‘We two (exclusive) see you two.’    Jaru

The pronoun enclitics of Pama-Nyungan languages almost certainly developed more recently than the pronoun prefixes of non-Pama-Nyungan languages. The former are generally longer than in non-Pama-Nyungan languages, show fewer irregular allomorphs, involve less complex morphological and phonological rules, and do not cohere as tightly to the words to which they are attached. It is possible that bound pronouns diffused as a grammatical category from nearby non-Pama-Nyungan languages, although the forms did not.

## 6.4 Determiners

Determiners are words like *a*, *the*, *this*, *that*, and so on in English that serve to limit the range of things referred to by a noun phrase: that is, that help to specify or narrow down its reference. Two main types are DEFINITE determiners, which indicate that the referent is identifiable, and INDEFINITE/INTERROGATIVE determiners, that indicate that the referent is not identifiable. Like pronouns, determiners form smallish closed classes.

### 6.4.1 Definite determiners

The main type of definite determiners are demonstratives. These specify the intended referent in terms of its proximity to the speaker and/or addressee. Basic systems distinguish between things close to the speaker (like *this* in English) and things distant from the speaker (like *that*).<sup>10</sup> Such demonstrative systems are found in many languages, including non-Pama-Nyungan Gooniyandi, Bunuba, Nyulnyul and Miriwoong, and Pama-Nyungan Jaru, Warlpiri,



Walmajarri, etc. Jaru, for instance, has *murla* ~ *murlu* for ‘this’, and *yala* ~ *yalu* for ‘that’; Nyulnyul has *in* ‘this’ and *bin* ‘that’; and Bunuba has *nginda(ji)* ‘this’ and *ngurru* ‘that’.

Some languages, however, have more complex systems, usually involving a third term. In Yawuru there are three demonstratives: *nyamba* ‘this’, *kamba* ‘that’ and *karda* ‘that (far away)’. Closely related Warrwa has a slightly different system, also with three demonstratives: *nyinka* ‘this’, *kanka* ‘that mid-distant’, and *binka* ‘that’. Ngarinyin, Worrorra, Unggumi, and other southern Worrorran languages also have three terms, distinguishing between ‘this’, ‘that’ and ‘that way over there, usually out of sight’ (Capell and Coate 1984: 136; Rumsey 1982a: 33).

In some languages (e.g. Bunuban and Nyulnyulan) demonstratives behave regularly as nouns in terms of case- and number-marking: they can take any such morphemes that normally attach to nouns. In particular, they can be marked by the locative marker to indicate spatial locations ‘here’ and ‘there’ – there are no separate roots for things vs places as in English.<sup>11</sup>

In languages with noun classes or genders (see §7.4) demonstratives usually specify the gender of the noun they modify. Ngarinyin, for example, distinguishes *jín-da* (MASC:base-near) ‘this (masculine)’, *nyín-da* (FEM:base-near) ‘this (feminine)’, *gan-da* (NEUT<sub>W</sub>:base-near) ‘this (inanimate thing of the w-class), and *mun-da* (NEUT<sub>M</sub>:base-near) ‘this (inanimate of m-class), here’.

Many Kimberley languages show at least one non-demonstrative definite determiner – a definite determiner that does not specify things in terms of their position relative to the speaker or hearer. Nyulnyulan languages have a demonstrative of this type, based on the root *kinya* (Eastern languages), *kinyíngk(i)* (Western languages). This determiner indicates just that the thing is definite. No indication is given of its proximity to the speaker or hearer, and it need not even be present in the speech situation: it may merely have been mentioned previously. Whereas English demonstratives *this* and *that* are often used to refer to things that have been mentioned only, Nyulnyulan demonstratives can only be used for things that are actually present. If the thing has only been spoken about, the non-demonstrative determiner (or third person pronoun) must be used. The non-demonstrative determiner in Nyulnyulan languages may, however, be used in reference to something present in the speech situation, in which case it may translate either as ‘this’ or ‘that’, leaving distance unspecified. Thus, in Nyulnyul *kinyíngk wamba* can mean ‘this man’ or ‘that man’, referring to a man who is actually present; alternatively, it can refer to a man who was previously mentioned (e.g. a man referred to in a story). Similar determiners are the Wangkajunga *palunya*, and the Ngarinyin *-andu* (which takes gender prefixes).

The Bunuban languages are interesting in that they both have more than one non-demonstrative determiner, used almost exclusively in reference to things that are not present in the speech situation. Bunuba has *nyirra* and *nyirraji*, the difference being that the latter, but rarely the former, is used along with a noun (Rumsey 2000: 73). Gooniyandi *niyaji* ‘this’ and *niyi* ‘that’ differ in terms of relative distance from the last mention of the thing in discourse. A third term,

*ginharndi* – generally translated by speakers as ‘that one you know’ – is used for an entity that is neither present in the speech situation, nor has been mentioned in the current discourse, but is never-the-less known to both speaker and hearer, usually from previous interactions. For instance, if the speaker and hearer had been speaking about a particular man in a previous conversation, they might refer to him as *ginharndi yoowoooloo* ‘that man’. The determiner *jangu* in Jaru appears to have the same meaning (Tsunoda 1981: 63).

Non-demonstrative determiners are often used as sentence conjunctions. In Gooniyandi *niyaji* ‘this’ and *niyi* ‘that’ are found with *-nhingi* ‘from’, conveying the meaning ‘then’ – literally, ‘after this’ and ‘after that’. (Speakers differ as to which they prefer to use as the conjunction.) In Nyulnyul *kinyingk-karr*, with temporal marker *-karr*, is sometimes used as a conjunction, as in the following examples. In the first, it conjoins two clauses in a sentence, while in the second it conjoins two sentences.

- (6.19) *dujul dujul irrinyin/ kinyingk-karr irrwirdin/ Nyulnyul*  
 yandy yandy they:get:it this-when they:eat:it  
 ‘They yandy it, and then eat it.’

- (6.20) *jad ingirrawil/ walangk/ ingirruluwulan/ kinyingk-karr jungk-uk*  
 cut they:shave:it spear they:rub:it this-when fire-in  
*ingirraman/ ingirrumbaran/ orait layib injan/*  
 they:put:it they:straighten:it alright good it:is  
 ‘They shave and shave the spear. Then they put it on the fire and  
 straighten it until it is good.’ Nyulnyul

In these examples *kinyingk* denotes a stretch of text. Similarly in the following examples: in (6.21), it refers back to the previous clause, *bulj nganyji* ‘I am tired’, while in (6.22) it refers to an entire story. Demonstrative determiners are not used in this way in Nyulnyul.

- (6.21) *bulj nganyji kinyingk-ij nganin mijal Nyulnyul*  
 tired I:am this-for I:am sit  
 ‘I’m tired, that’s why I’m sitting.’

- (6.22) *arri milijubul-ngay kinyingk jabal ngay-in ngamungk muj*  
 no you:might:tell-me this story I-ERG I:know already  
 ‘Don’t tell me that story; I know it already.’ Nyulnyul

#### 6.4.2 Indefinite and interrogative determiners

Indefinite determiners indicate that the identity of the thing being referred to is not certain, as for the English indefinite article *a ~ an* and the indefinite pronouns *someone, something, somewhere*, etc. Most, if not all Kimberley languages have

a set of indefinite determiners that are used both in statements to indicate that the identity of the referent is not known, and in questions like the English *wh*-words *who*, *what*, *where*, etc. Thus, the Gooniyandi sentence (6.23) can be used both as a statement and as a question, as a request for information regarding the identity of the person concerned:

- (6.23) *ngoorndoo-ga ngaarri doownga-ngarra* Gooniyandi  
 someone-ERG money s/he:got:it-1sgOBL  
 ‘Someone took my money’, or ‘Who took my money?’

The indefinite sense is always present, and is an essential part of the meaning of these determiners; not so the question sense, which is conditioned by the context of the utterance.

Most Kimberley languages have five or six indefinite determiners, the meaning difference between them concerning the type of thing being referred to. These determiners are often somewhat restricted in morphological potential. Table 6.8 shows the main indefinite determiners in three languages; greyed backgrounds group together identical or similar forms in each language.

The glosses given in the first column of Table 6.8 should be taken with a grain of salt. It cannot be assumed that there is a direct relation between these determiners and English-based knowledge categories such as person, place, thing, etc. In Yawuru, like other Nyulnyulan languages, *yangki*, covers not just persons and things but also events. In fact, in the Nyulnyul of the last full speaker, cognate *angki* was also almost always used for places as well, instead of *arr* ‘where’. And in Gooniyandi *ngoonyoo* covers both things selected from a closed class and places; in the latter case, it is marked by a locative (at), allative (to), etc. marker – for instance, *ngoonyi-ya* (with *-ya* ‘at’) means ‘where’. *Yiniga* covers an even wider range, including manners, quantities, and events; it is also used to refer to stretches of speech, as in requests to repeat the previous utterance. And *ngoorndoo*

Table 6.8 Indefinite determiners in some Kimberley languages

	Gooniyandi	Yawuru	Jaru
Someone, who	<i>ngoorndoo</i>	<i>yangki</i>	<i>ngana</i>
Something, what	<i>jaji</i>	<i>yangki</i>	<i>nyamba</i>
Something, which	<i>ngoonyoo</i>	<i>yangki</i>	<i>nyamba</i>
Somewhere, where	<i>ngoonyoo-</i>	<i>jana</i>	<i>wanyju- ~ wanyji-</i>
Somehow, how	<i>yiniga</i>	<i>janala-(kaja)</i>	<i>nyarrwa ~ nyarra</i>
Some number, how many	<i>yiniga-ngarri</i>	<i>nganyja</i>	<i>nyayanga ~ nyambamarraj</i>
Sometime, when	<i>yaningimi</i>	<i>bana</i>	<i>nyangula</i>
Do something, do what	<i>yiniga-</i>	<i>yangki-kun + -NGA</i>	<i>nyarra ... MA-</i>

*Note*

Background shades group together related forms in each language.

‘someone, who’ is used not just for persons, but also for names, including names of animate and inanimate things; thus one says the equivalent of ‘who is your/his/her/its name’ rather than ‘what is your/his/her/its name’. The same holds in many Kimberley languages, including Bunuba, Warrwa, and Jaru. Unusually, in Miriwoong *gaboo* ‘do (or say) what’ is used in requests for names:

- (6.24) *gaboo jarrang* Miriwoong  
 what you:pl:will:do/say  
 ‘What will you lot do/say?’

- (6.25) *gaboo-ninggi yinginy* Miriwoong  
 what-to:you name  
 ‘What is your name?’

In many languages it is possible to explicitly mark the indefinite sense, ruling out the question interpretation, by the addition of a morpheme – usually an enclitic – conveying the meaning ‘identity is not known, or is unimportant’. Gooniyandi has the enclitic *-wirri*; Jaru, *-warri*; Miriwoong, *-wanygoo* ~ *-anygoo*; and Gunin/Kwini, *-ngurru*. These enclitics can also be attached to nouns to indicate that they refer to an indefinite item of the type specified by the noun, as in Gooniyandi *yoowooloo-wirri* (man-indefinite) ‘some man of unknown identity’.

Unlike English *wh*-determiners, indefinite determiners in traditional Kimberley languages are not normally used as relative pronouns like English *who* as in *The person who comes through the door first will receive a prize*. Normally, however, they have other uses. In Gooniyandi, for instance, they can be used non-specifically to refer to any item of a specific type, in which case they usually take the enclitic *-ngarraya* ‘too, including’:

- (6.26) *mangarri ngoorndoo-ga-ngarraya wardnginbirra* Gooniyandi  
 not someone-ERG-too they:took:me  
 ‘No one gave me a lift.’

They are also sometimes used as hesitation markers, similar to English *what-cha-ma-call-it*. In Warrwa, for example, (*y*)*angki* ‘who, what’ is used in this way. Alternatively, the hesitation marker may be constructed from an indefinite determiner, like Gooniyandi *ngoorndoongoornoo* ~ *ngoorndoornoo*, which clearly involves modification of a reduplication of *ngoorndoo* ‘who’. Example (6.27) illustrates its use.

- (6.27) *ngamoo mangarri wardji ngoorndoongoornoo,*  
 before not it:went what:cha:ma:call:it  
*bin.gidingarri mangarri wardji,* Gooniyandi  
 aeroplane not it:went  
 ‘In those days the what-cha-ma-call-it, the aeroplane had not yet arrived.’

Many languages show a type of indefinite determiner that is not used in questions. A few languages have forms based on the word for ‘one’ that serve as a type of non-interrogative indefinite. Western Desert varieties Wangkajunga, Kukatja and Yulparija show determiners of this type; for example, Kukatja has *kutjupa* ‘an indefinite one’ – cf. *kutju* ‘one’. Nyulnyulan languages have two indefinite determiners of this type, one for singular number, the other for non-singular number. The latter is clearly constructed from the former by addition of a ‘with’ marker, though they now form an unanalysable root. Warrwa is typical: it has *warany* ‘one’, and *waranynganyjina* ‘some, a number’, as in the following examples:

- (6.28) *warany-ma wamba jarrb nambany-ngayu ngulyku* Warrwa  
 one-ERG man scratch he:did-1sgOBJ beard  
 ‘Some man shaved me.’

- (6.29) *ngayu kulin yuk nganjina marlu nila ngayu wamba*  
 I lie camp I:did not know I man  
*waranynganyjina ngirrmananyjina* Warrwa  
 some they:fought:together  
 ‘While I was sleeping, I didn’t know that some (people) were fighting.’

This type of indefinite determiner is often also used comparatively, to mean ‘(an)other’ and ‘others’, invoking a comparison with a similar item chosen as a standard of comparison, as in the following Warrwa examples:

- (6.30) *nganyjalanyngany warany-barri iri* Warrwa  
 I:saw:him:with other-with woman  
 ‘I found him with another woman.’
- (6.31) *waranynganyjina-nyarri warrkum nganjina* Warrwa  
 others-and work I:did  
 ‘I did other kinds of work too (as well as what we have just been speaking about).’

Just a few languages have an exclusively interrogative determiner; Bunuba is such a language (Rumsey 2000: 74):

- (6.32) *ngaanyi gima* Bunuba  
 what s/he:did  
 ‘What did she do/say.’

### Further reading

Two important general works on pronoun systems are Benveniste (1946/1971) and Greenberg (1988); McGregor (1989b) and McKay (1990) discuss some of their ideas in relation to Australian languages. Dixon (1980: ch. 11) contains plenty of information

on pronoun systems in Australian languages, including discussion of four person minimal-augmented systems, first identified by Conklin (1962) (for the Austronesian language Ilocano). Various analyses of the person and number system of Bunuban languages have been proposed, including McGregor (1989b, 1990: 167–9); Rumsey (1996, 2000: 70–2); and Roberts (1996). Here we follow McGregor (1996c), which seems to me the most satisfactory analysis. Careful investigations of the meanings and uses of demonstratives and definite determiners in Australian languages are only beginning; papers by McGregor, Schultze-Berndt and Wilkins in Levinson and Wilkins (forthcoming) give some indication of the complexities. On indefinite and interrogative determiners, see Mushin (1995).

# NOMINALS AND NOUN PHRASES

## 7.1 Introductory remarks

Nominals in Kimberley languages are, as mentioned in §5.2, words that occur with a range of case-marking and other types of postpositions or, in a few languages, case-marking suffixes. They cannot, however, be defined as a class disjoint from other parts-of-speech in terms of their morphological potentials. It is impossible in most Kimberley languages to distinguish adjectives as a part-of-speech grammatically distinct from nouns. There is usually a single part-of-speech corresponding to nouns and adjectives in languages like English. Words of this part-of-speech can normally be used to denote things, persons, animals, plants, artefacts, places, abstract entities, and so forth. Some can be, and usually are, used to denote qualities of things, although none are in principle precluded from referring to things; these might be called notional adjectives, corresponding to adjectives in English. Some languages do, however, distinguish a small set of adjectives; these are best regarded as a subclass of nominals, rather than a separate part-of-speech. Hence the need for a covering term ‘nominals’; the term ‘noun’ is used in this book in the specific sense of a nominal that is not an adjective.

Noun phrases (NPs) are grammatical units consisting of one or more nominals – occasionally words of other parts-of-speech – that refer to things; they are referring expressions (§5.3). In many Kimberley languages NPs typically consist of just a single word; furthermore, in those NPs that consist of more than one word, the words do not usually occur in a fixed order. This is illustrated by the acceptability of both a. and b. versions of the following Gooniyandi examples:

- |       |    |  |                          |    |                          |                          |            |
|-------|----|--|--------------------------|----|--------------------------|--------------------------|------------|
| (7.1) | a. | <i>yoowarni</i><br>one<br>‘one woman’  | <i>goornboo</i><br>woman | b. | <i>goornboo</i><br>woman | <i>yoowarni</i><br>one   | Gooniyandi |
| (7.2) | a. | <i>ngirndaji</i><br>this<br>‘this boy’ | <i>gambayi</i><br>boy    | b. | <i>gambayi</i><br>boy    | <i>ngirndaji</i><br>this | Gooniyandi |

- (7.3) a. *garndiwirri ngidi-yoorroo*      b. *ngidi-yoorroo garndiwirri*      Gooniyandi  
          two                      we-du                      we-du                      two  
          ‘we two’

Gooniyandi is typical. Adding to this the fact that (as mentioned in §5.3) it is possible in many languages for the nominals that make up an NP to be separated by words that clearly do not belong to the NP, it is not surprising that some linguists have doubted the existence of NPs in Australian languages. According to their view, instead of NPs filling grammatical roles in clauses, each word of the putative NP would separately fill that role.

However, two important considerations lead us to reject this line of reasoning. First, as has been mentioned a couple of times already, case-marking morphemes in most Kimberley languages are not inflectional suffixes, but occur one per NP. If each word of the NP separately filled the grammatical role, then why shouldn't each word be marked for this role? Doesn't the occurrence of a single morpheme with the sequence of words suggest that they form a unit together?

Second, in some languages – and Gooniyandi is one such language – even if the words of an NP can often appear in any order, the different orders carry slight but consistent meaning differences. This is perhaps clearest for (7.3), where the a. version is best translated as ‘the two of us’, while the b. version is best translated as ‘we two’. (We return to this in §7.6.1.) There are also languages (e.g. Nyulnyulan languages) in which the order of words in NPs is more fixed, though not entirely rigid.

One further reason for accepting the existence of NPs is a theoretical one, applicable even to languages such as Jaru in which the case-markers are not uncontestedly phrasal. If we were to adopt the view that each nominal separately enters into a grammatical relation in the clause, then in clauses such as (7.4) we would need to say that there are two subjects, *yambi* 'big' and *wajbali* 'white person'.

- (7.4) *yambi-gu*    *wājɓali-lu*    *nga-yi*    *ngaju*  
big-by    white:person-by    statement-me    me
- binarrig*    *man-i*    Jaru  
knowledgeable    get-past  
'The big white man taught me.'

This is undesirable in that it complicates our description of the clause – we would have to admit clauses with multiple subjects and objects, when it is not at all obvious that the difference lies at the level of clause.<sup>1</sup>

## 7.2 Case-marking

Most Kimberley languages have ten or so case-marking morphemes. Languages in which they are word-inflections tend to have fewer of them than languages where they are clearly phrase-level postpositions. The following are the main



case-markers found in Kimberley languages, together with brief explanation of their meanings and uses:

ERGATIVE	ERG	subject of a transitive but not intransitive clause; a bit like <i>by</i> in <i>the man was bitten by the dog</i> (except that the <i>by</i> phrase remains subject)
ABSOLUTIVE	ABS	covers subject of an intransitive clause and object of transitive clause
INSTRUMENTAL	INST	instrument or tool used to effect action, ‘with’ or ‘by’, as in <i>the man hit the dog with a stick</i>
DATIVE	DAT	indirect object of a clause, as in <i>I was looking for money</i> , purpose of action, ‘for’, as in <i>they dug a hole for the kangaroo</i> , and various other meanings including possession
GENITIVE	GEN	possessor, like English <i>’s</i> , as in <i>the woman’s coolamon</i>
LOCATIVE	LOC	location, covering ‘in’, ‘at’, ‘by’, ‘on’, as in <i>they sat by the fire</i> , <i>they sat on the log</i> , <i>they sat in the shade</i> , etc.
ALLATIVE	ALL	direction or destination of motion, ‘to’ or ‘towards’, as in <i>she walked to the river</i>
ABLATIVE	ABL	source or direction from, ‘from’, as in <i>she walked from the house</i>
PERLATIVE	PER	an intermediate point on a path, usually translating as <i>via</i> or <i>through</i> , as in <i>they walked through my house</i>
COMITATIVE	COM	accompaniment, someone or something keeping company with another, usually translating as <i>with</i> , as in <i>the man was walking with his wife</i>
CAUSAL	CAU	a cause or reason for an action, ‘because’, as in <i>I put the meat in the tree because of dogs</i>

No language has markers for all of these cases. Languages with phrase-level postpositions never have a marker for the absolutive: NPs serving as subject of an intransitive clause or as object of a transitive clause are never given a phrase-marker. They are invariably bare NPs, as you find in English for each of the three relations intransitive subject, transitive subject, and transitive object – no NP in *the man bit the dog* or *the dog died* uses a preposition. It is only languages with word-level markers that have markers for the absolutive – and then it is usually a zero morpheme. Other relations that rarely have separate markers are the genitive and the causal.

In the following subsections we examine the systems of case-marking in five languages, one from each of the main families traditionally spoken in and near the Kimberley. (We do not discuss either marginal languages like Murrinh-patha and Jaminjung, or post-contact languages.) Table 7.1 shows the main case-marking morphemes in the selected languages.

Table 7.1 Case-markers in five languages

Marker	Bunuba	Warrwa	Ngarinyin	Miriwoong	Yulparija
ergative	- <i>ingga</i>	- <i>na</i> ~ - <i>ma</i> ~ - <i>mma</i>			- <i>lu</i> ~ - <i>ju</i>
absolutive					- $\emptyset$ , - <i>nga</i> ~ - <i>nya</i>
instrumental	(- <i>ngarri</i> ) -(i) <i>ngga</i>	- <i>ngany</i>	- <i>nyine</i> ~ - <i>nyinengga</i>	- <i>berri</i> , - <i>theb</i>	-( <i>kurlu</i> )- <i>lu</i>
dative	- <i>gu</i> ~ - <i>u</i>	- <i>yi</i> ~ - <i>ji</i>	- <i>gu</i>	- <i>geny</i>	- <i>ku</i>
genitive			- <i>nangga</i>	- <i>gering</i>	
locative	- <i>yuwa</i> ~ - <i>juwa</i>	- <i>n</i> ~ - <i>an</i> ~ - <i>ana</i> ~ - <i>kan</i> ~ - <i>wan</i>	- <i>ra</i> ~ - <i>rda</i> ~ - <i>da</i>	- <i>m</i> ~ - <i>em</i>	- <i>ja</i> ~ - <i>la</i> ~ - <i>ngka</i>
locative <sub>2</sub>			- <i>ngunda</i>	- <i>biny</i>	
allative	- <i>yawu</i> ~ - <i>jawu</i>	- <i>ngana</i>	- <i>biyny</i>	- <i>bag</i>	- <i>karti</i> ~ - <i>kurti</i> ~ - <i>karta</i> ~ - <i>warra</i>
allative <sub>2</sub>			- <i>yu</i> ~ - <i>ju</i>	- <i>melig</i>	
ablative	- <i>nhingi</i> ~ - <i>nhi</i>	- <i>nkawu</i> ~ - <i>kawu</i>	(- <i>nangga</i> )	- <i>banjilng</i>	- <i>ngurru</i>
ablative <sub>2</sub>		- <i>yunu</i> ~ - <i>junu</i>			- <i>janu</i> ~ - <i>ja</i>
perlative	- <i>binyi</i> ~ - <i>bilinyi</i>	- <i>marru</i>			- <i>wana</i>
comitative	- <i>ngarri</i>	- <i>barri</i>	- <i>gurde</i>	- <i>bang</i>	(- <i>kurlu</i> )
comitative <sub>2</sub>	- <i>guda</i>	- <i>nyarri</i>			
causal	- <i>winyja</i>				

### 7.2.1 Bunuba

Case-marking morphemes in Bunuba are postpositions typically attached to the first word of an NP, rarely to more than one word.

The ergative postposition appears in the form *-ingga* when it follows a consonant (which is rare, and is mainly restricted to English borrowings); when it follows a vowel, the two vowels brought into contact change: /u-i/ is replaced by the /i/; /i-i/ and /iy-i/ give rise to a long [i:]; and /a-i/ appears as [e].

The main function of the ergative postposition is to mark the subject of a transitive clause. The subject of a REFLEXIVE/RECIPROCAL clause – a clause in which the action is directed to the subject himself or amongst the subjects themselves – can also be marked by the ergative, as in (7.5). The ergative postposition is optional in both cases.

- (7.5) *biyirri-ingga nyaga'wurriyni*  
 they-ERG spear'they:hit:each:other  
 'They speared each other.'

Bunuba

The ergative postposition can also mark an instrument, as in (7.6). More frequently, instruments are specified by a combination of the comitative *-ngarri* followed by the ergative, as in (7.7).

- (7.6) *mingali-ingga gaygaytha'yirrangarri* Bunuba  
 hand-ERG cut'we:used:to:do  
 'We used to cut (fence posts) by hand.'
- (7.7) *gurama-ingga muwurru-ngarri-ingga dangayga'nganbuni* Bunuba  
 man-ERG club-COM-ERG hit'he:hit:me  
 'The man hit me with a club.'

Body-part instruments can also be marked by the ergative in intransitive clauses, as in 'he was lying on his belly'. So also can some spatial and temporal expressions, as in *ngurru-ngarri-ingga* (that-COM-ERG) 'that side'.

The dative marker takes the form *-gu* following a stop or nasal, *-u* otherwise. The first form is widespread as a dative marker in Australian languages, non-Pama-Nyungan and Pama-Nyungan. Two of the four other languages discussed here have this form for their dative marker, while one (Miriwoong) has a possibly related form. The dative in Bunuba marks a possessor, purpose, beneficiary, addressee (of speech), and 'of, about' – someone or something with respect to which a feeling is held, as in 'they are ashamed of him'.

The locative and allative postpositions take the *j*-initial form following stops and nasals, the *y*-initial form elsewhere. The locative marks general spatial and temporal location of a thing, event, state, or whatever, and thus corresponds to various English prepositions, including *in*, *at*, *on*, and *by*. It also has more abstract senses, as in the following example:

- (7.8) *gilandirri-ya wudiyg ngarragi-yuwa* Bunuba  
 big-again they:were my-LOC  
 'They grew up on me (i.e. under my tutelage).'

The allative specifies a goal or target of motion, and generally glosses as 'to', 'into', or 'as far as' a place. The goal or target can also be a thing or person, in which case a sense of purpose is often present, as in, for example, *go to/for yams* or *go up to a corpse* (usually for a purpose, to do something to it). It also occurs in non-motion clauses denoting events orientated in a certain direction, as in *look towards the tree*.

The ablative indicates the source from which motion, or more generally any type of action, begins or originates. (The short form *-nhi* occurs only in casual speech.) It is also used in reference to time after or since, as in *nyirraji-nhingi* (that-ABL) 'after that', often used as a sentence connector. The ablative can also be used to specify the source or origin of a person or thing involved in an event, rather than the event itself, as in 'pick up from the ground'; the source or origin

may also be used to characterise something independent of any event, as in *jalnggangurru-nhingi lundu* (doctor-ABL stick) ‘stethoscope’. In some cases it takes on a causal sense:

- (7.9) *tharra-nhingi milwa'niy* Bunuba  
 dog-ABL mad'he:was  
 ‘He got mad because of the dog.’

The perlicative indicates a general orientation with respect to some place or thing usually lying on a path, but neither a source nor destination; hence, it is usually glossed ‘via’, ‘thorough’, ‘along’, ‘by way of’, and so forth. In Bunuba the perlicative is used on NPs denoting foods sought, when no particular item is targeted, as in (7.10):

- (7.10) *nginji milha-binyi gamanba'wura* Bunuba  
 you meat-PER hunt'you:will:go  
 ‘You will hunt about for meat.’

The comitative *-ngarri* has already been encountered in its use with the ergative postposition to mark an instrument. It is also used to mark someone or something that accompanies another in an event, where there is an unequal relation as in *I went with my dog*. This postposition can also be used to indicate a characteristic feature of the referent, as in *rarrgi yingiyi-ngarri* (stone name-COM) ‘named stones’ (used in inquests), and derivationally, as in *gambinyi-ngarri* (egg-COM) ‘male dog’ (i.e. with egg-sized testes).

Bunuba has a second comitative postposition, *-guda*, which tends to be used when the accompanying thing is animate, in contrast to *-ngarri* where the accompanying thing is often inanimate. The relation between the two entities is generally more equal in the case of *-guda* COM<sub>2</sub> than *-ngarri* COM, and the pronominal prefix in the verb may group the two entities together, as in (7.11); speakers often gloss it ‘too’ (never used in glossing *-ngarri* COM).

- (7.11) *ngay wiyi-guda wad'burayntha* Bunuba  
 yes woman-COM<sub>2</sub> go'they:two:went  
 ‘Yes, he went with the woman.’

Interestingly, *-guda* COM<sub>2</sub> is also used with an ‘amongst’ sense, where the accompanying thing is salient, though not involved in the event in the same way as the accompanied person. Thus, (7.12) specifies the saltwater crocodiles as saliently with the stockmen, though they were not actually crossing the river.

- (7.12) *gurraga'yiyidiyngarri linygurra-guda* Bunuba  
 cross:over'we:used:to:be saltwater:crocodile-COM<sub>2</sub>  
 ‘We used to cross over (the Fitzroy River at Lanji Crossing) right amongst the saltwater crocodiles.’

Like *-ngarri* COM, *-guda* COM<sub>2</sub> has uses within NPs, as in *thingi-guda rarrgi* (cooking:stone-COM<sub>2</sub> stone) ‘cooking stone’.

Bunuba is the only one of the five languages discussed in this section that has a separate causal postposition; this postposition is quite rare in use, and seems to be restricted to circumstances in which the consequences are bad, as in the following example.<sup>2</sup>

- (7.13) *malngarri-winja garuwa nyaga'wirriyningarri* Bunuba  
 white:person-CAU water spear'they:used:to:hit:each:other  
 ‘They used to fight each other because of “whitefella water” (i.e. grog).’

### 7.2.2 Warrwa

Warrwa has about the same range of case-markers as Bunuba, and is typical of a Nyulnyulan language. As in Bunuba, they are postpositions that are normally attached to the first word of a phrase.

The ergative postposition is normally found on the subject of a transitive clause (see also §10.3), though it is not obligatory: about ten per cent of transitive subjects lack it. Very rarely it marks the subject of intransitive clauses; this happens for less than two per cent of intransitive subjects, and for reasons that are not entirely clear. The ergative occurs in other contexts: (a) on NPs qualifying transitive subjects (e.g. on ‘children’ in ‘We used to stone birds as children’); and (b) on the subject of a clause whose verb is omitted, usually a clause of speech framing a quoted utterance:

- (7.14) *kinya-rnirl-ma marlu jana-n-ngurndany ingan/ ingan* Warrwa  
 this-pl-ERG not where-LOC-maybe he:is he:is  
*nyunu marduwarra/*  
 there river  
 ‘They said, “He might be somewhere, perhaps down on the river.” ’

The three allomorphs of the ergative postposition in Warrwa are distributed in an unusual way. Two, *-na* and *-nma*, follow nominals with final vowels; *-na* sometimes also follows words with a final liquid (*rr* or lateral). The third, *-ma* occurs after any consonant (including a liquid – see previous example). The two allomorphs *-na* and *-nma* can always be interchanged (provided the word ends in a vowel), and the clause will remain fully acceptable to speakers. However, they express different meanings: *-nma* is a focal ergative marker – it gives salience to the transitive subject (see §12.3.2) – whereas *-na* does not. (In this respect Warrwa is unusual for a Nyulnyulan language: it is the only one with a focal ergative postposition.)

Another interesting feature of Warrwa (shared with other Nyulnyulan languages) is the existence of a distinct instrumental postposition. In most Australian languages instrumental meaning is covered by the ergative and/or comitative, or by the

locative. In Warrwa the ergative seems never to mark instruments, though occasionally it follows the comitative *-barri*, marking an instrument (as in e.g. ‘take by car’).

The choice between the two dative allomorphs *-yi* and *-ji* is determined by the preceding segment: *-ji* follows a stop or nasal, *-yi* follows a vowel. The dative is not common in Warrwa, and covers a smaller range of senses than in most non-Nyulnyulan languages. Its main uses are to indicate a purpose, an indirect object, or a possessor in an NP.<sup>3</sup> The locative, allative, and perlicative have about the same range of senses as the corresponding postpositions in Bunuba, except that the perlicative is not used for foods hunted for.

Like other Nyulnyulan languages, Warrwa has two ablative postpositions *-nkawu* ~ *-kawu* ABL and *-yunu* ~ *-junu* ABL<sub>2</sub>; the first member of each pair occurs after a vowel, the second, after a consonant. The meaning difference appears to have something to do with the closeness of the connection (physical or conceptual) between the thing or event and its source. The two postpositions separate fairly clearly in terms of their uses, each covering part of the range of senses associated with the single Bunuba ablative postposition.

The first postposition, *-nkawu* ~ *-kawu* ABL, is the more common, and is used to specify the source or origin of a motion event (e.g. ‘I came from that hill’) or thing (e.g. ‘I lifted the stone from the ground’), the body part at which an event of pulling or grabbing happens (e.g. ‘I pulled it from(by) the tail’), and time after (e.g. *kinya-nkawu* (this-ABL) ‘then, after that’). The second, *-yunu* ~ *-junu* ABL<sub>2</sub>, is used to indicate the source or origin of a thing, never an event; it is quite frequent in NPs where it characterises a thing in terms of its origin (e.g. *birri-yunu* (bush-ABL<sub>2</sub>) ‘a bushman’); terms for some introduced items are formed with this postposition. It is also used to indicate time after, and the cause of an event (as in ‘they are drunk from grog’), which use is not found for *-nkawu* ~ *-kawu* ABL; it is not used to specify a body part at which grabbing contact is effected.

The two comitative postpositions contrast in basically the same way as the two Bunuba comitatives: *-barri* COM indicates a lower status accompanying thing, *-nyarri* COM<sub>2</sub>, a same status accompanying person or thing. The latter also sometimes conveys the sense ‘too, also’ – though apparently not the ‘among’ sense – and is often used as a nominal conjunction:

- (7.15) *kujarra ngirrwaninbili waangu-nyarri yaaku* Warrwa  
 two they:two:are:sitting wife-COM<sub>2</sub> husband  
 ‘The husband and wife stay together.’

### 7.2.3 Ngarinyin

Ngarinyin also marks case-relations with postpositions; these are attached to the final word of an NP. As in other Worrorran languages, subjects (transitive or intransitive) and objects are not marked by postpositions. There are a few surprises in the uses of the postpositions, uses that are not found in either Bunuba or Warrwa.

The instrumental postposition marks an instrument – either a tool (e.g. ‘assault with spears’) or substance with which the action was achieved (e.g. ‘paint with ochre’). The two allomorphs *-nyine* and *-nyinengga* can be used interchangeably.

The dative covers purposes and beneficiaries, as well as destinations of motion (as in ‘go to Mowanjum’, ‘take food to someone’); it does not mark possessors. Possessors other than pronoun and proper name possessors (see §7.6.2) are marked by the genitive, as in *modaga polijman-nangga* (car policeman-GEN) ‘a policeman’s car’ and *geren dila-nangga* (pillow dog-GEN) ‘a dog’s pillow’. The genitive is also used in the following senses: ‘away from’ or ‘originating at’ (Ngarinyin is the only one of the five languages without a separate ablative); ‘some of’, as in (7.16); ‘associated with or belonging to a time’ (e.g. *wundirr-nangga birri* (olden:days-GEN people) ‘people of the olden days’); and ‘time after’ (when attached to *di* ‘that, then’). It also has a derivational use, as in *barudu-nangga* (bush:war-GEN) ‘a veteran of the bush wars’.

- (7.16) *bleng-nangga angungurluninya* Ngarinyin  
 flank:steak-GEN I:gave:to:him  
 ‘I gave him some of the flank steak.’

Unusually, Ngarinyin has two locative postpositions. One is the general locative *-ra* ~ *-rda* ~ *-da*; this covers a typical range of spatial and temporal senses, including ‘at’, ‘in’, ‘on’, and ‘time when’. The other is *-ngunda*, which conveys the specific spatial sense ‘in the vicinity of’, as in *garnmanya-ngunda* (Kunmunya-LOC<sub>7</sub>) ‘around Kunmunya (mission)’.

Ngarinyin also has two allative postpositions. One, *-biyny*, has only spatial uses; it indicates orientation in a direction, 'towards'. The other, *-yu ~ -ju*, is used with the spatial sense 'up to, as far as'; as distinct from *-biyny* ALL, the destination is specified as reached. It also has a non-spatial sense, roughly 'into or up to a (new) state', as in (7.17):

- (7.17) *yilan-ju garra nginyi* Ngarinyin  
 child-ALL<sub>2</sub> suppose I:was  
 'Suppose I had become a child.'

Finally, Ngarinyin has just one comitative postposition, *-gurde* – clearly cognate with Bunuba *-guda* COM<sub>2</sub> – covering senses ‘with’, ‘including’, ‘accompanied by’, and ‘having’.

#### 7.2.4 *Miriwoong*

The case-marking morphemes in Miriwoong are described by Kofod (1978) as suffixes, though it seems better to treat them as postpositions, as most of the corresponding Kija morphemes are treated in Kofod nd. An exception is *-m* ~ *-em* LOC, which is most likely a word-level suffix. There is very little phonologically

conditioned allomorphy for the Miriwoong case-markers, except for the locative suffix: *-m* occurs following a root with a final vowel or *ng*, *-em* following any other consonant. The *-m* allomorph also replaces final *ng*. The other case-markers are invariant. However, they sometimes affect the final segment of the root, in some cases replacing it by *ng*; elsewhere final *ng* – less commonly, *ny* – is lost. We ignore these details here.

Miriwoong has two instrumental markers, *-berri* and *-theb*, the latter being restricted to the nominal *duwun* ‘spear’.

Dative *-geny* has the purposive sense ‘for, in order to get’, sometimes the allative sense ‘to(wards)’. Genitive *-gering* is also used with a purposive sense, and sometimes to indicate a benefactive or indirect object (as in ‘wait for someone’). Attached to temporal adverbs, it translates as ‘until’ (e.g. ‘keep it until tomorrow’) or ‘for’ (e.g. ‘I’ll cook it for later’).

The two locatives in Miriwoong apparently differ in status, *-m* ~ *-em* LOC being a suffix, *-biny* LOC<sub>2</sub> a postposition. Occasional sequences of the two occur, the former always before the latter. Both have the general spatial location senses ‘in’, ‘at’, and ‘on’. Temporal location is expressed by *-m* ~ *-em* LOC, though not, apparently, by *-biny* LOC<sub>2</sub>. The postposition *-biny* LOC<sub>2</sub> is also used in the senses ‘along’ and ‘through’, meanings usually covered by the perlocative (note the formal similarity to the Bunuban perlocative); it is sometimes used with an instrumental sense, and to mark the language in which a word is spoken or in which it belongs (e.g. ‘speak in Miriwoong’).

The two allatives are used with the primarily spatial senses ‘to’, ‘into’, ‘onto’, ‘towards’, etc.; *-bag* ALL, however, frequently conveys the sense ‘back to’.<sup>4</sup> The ablative *-banjilng* indicates the source of an entity, or origin of motion; sometimes it has the sense ‘belonging’ (e.g. ‘she put on the things belonging to the turtle’). Sometimes the ablative is attached to a transitive subject, for contrastive effect, as in (7.18).<sup>5</sup>

- (7.18) *nawoo nemboon-nging-nayi thoowayin ngayoo-banjilng*    Miriwoong  
           he        he:hit:you-if-you        in:turn        I-ABL  
           *niwoonda-nenggoowa*  
           I:hit:it-because:of:you  
           ‘If he had hit you, I would have hit him.’

Like Ngarinyin, Miriwoong has a single comitative marker, *-bang*, used in the usual ‘with’ and ‘having’ senses.

## 7.2.5 *Yulparija*

In Yulparija the case-marking morphemes are most likely suffixes that normally attach to each word of the NP, as in other northern varieties of the Western Desert language, including Wangkajunga and Kukatja – though not in more southerly varieties such as Pintupi and Ngaanyatjarra.



The ergative suffix takes the form *-lu* following vowels, *-ju* following consonants. In addition to marking the subject of a transitive clause, it marks body-part instruments, and, following the comitative, other types of instrument. Unlike in the non-Pama-Nyungan ergative languages discussed above, it seems that we need to distinguish an absolutive case-marker, this being usually a zero suffix *-ø*; for animate nominals, however, *-nga* (following vowels) and *-nya* (following consonants) are sometimes used. Possibly their use has something to do with definiteness.

Otherwise, the uses of the case-markers are much as expected. Dative *-ku* marks purpose, beneficiary, and indirect objects (e.g. of clauses of speech and emotions). The locative has the usual range of spatial senses, and can also mark indirect objects of clauses of speech and expectation. The allomorphs *-la* and *-ngka* follow vowels, *-ja* occurs after a consonant. The allative indicates motion ‘to’ or ‘towards’, and sometimes purpose, ‘for’. The ablative *-ngurru* covers ‘from’ and ‘because of’, while the other ablative, *-janu* ~ *-ja* seems to be more frequently used in the causal sense; it also has a temporal sense ‘after’. The suffix *-wana* is poorly attested, but a few examples show the senses ‘along’ and ‘by way of’, suggesting it is a perative, as is the identical form in many other Western Desert varieties.

The comitative *-kurlu* is bracketed in Table 7.1 since it may be a derivational suffix (Burridge 1996: 26). It is, nevertheless, used to mark clause-level grammatical relations such as predicative possession (as in *kalyu-kurlu-rna* (water-COM-I) ‘I have water’) and instrument. A second suffix, *-jartu*, has apparently the same meaning.

### 7.2.6 Concluding remarks

This completes our discussion of the five systems of case-marking. It is clear that there is a reasonable degree of comparability between the senses of corresponding markers across the five languages. The following regularities can be singled out, applicable to Kimberley languages generally:

- An unanalysable instrumental case-marking morpheme exists in some languages, but more often instrumental meaning is expressed by the ergative (for body-part and hand-held instruments) or comitative plus ergative (other types of instrument).
- Ergative marking occurs in Bunuban, Nyulnyulan and Pama-Nyungan languages; it also occurs in nearby Jaminjung and Murrinh-Patha. In no non-Pama-Nyungan language is it obligatory, though it is reportedly so in the Pama-Nyungan languages of the region. Ergative marking is never restricted to subjects of transitive clauses: it always has other uses as well.
- Allative markers often have purposive senses.
- Ablative markers are often used in causal senses.

Forms recurrent across families are few. Most striking is the pan-Australian *-gu* (*-ku*) DAT. We have already commented on the formal similarities between Warrwa *-barri* COM and Miriwoong *-berri* INST, and Bunuban *-binyi* PER, Ngarinyin *-biyny* ALL, and Miriwoong *-biny* LOC. Also suggestive is the similarity between the Bunuba ergative *-ingga* – even more so the Gooniyandi *-ngga* ERG – and the locative allomorph *-ngka* of Yulparija and many other Pama-Nyungan languages. This is even more suggestive given that the ergative has spatial uses in both Bunuban languages. Within each family, however, it turns out that many forms are cognate; we do not explore these similarities here.

Dixon (1980: 320) has suggested that it is possible to reconstruct four proto-Australian case-markers:

Absolutive	*-ø	Ergative	*-lu
Locative	*-la	Purposive	*-gu

Reflexes of each exist in Yulparija and other Kimberley Pama-Nyungan languages. Only the purposive (i.e. dative) has obvious reflexes in the non-Pama-Nyungan languages. The most reasonable conclusion to draw is that the four markers represent proto-Pama-Nyungan case-markers,<sup>6</sup> and that the purposive was borrowed into some non-Pama-Nyungan languages in fairly recent times.

### 7.3 Pronoun affixes

All Worrorran and Western Nyulnyulan languages have sets of pronoun affixes that attach to a small subclass of nominals, usually indicating a possessor. These nominals are unusual in that they must take the pronominal affixes; they cannot occur in their bare form: they are bound roots. For instance, the Unggumi word *ngalimbarna* ‘my leg’ consists of the pronoun prefix *nga-* ‘my’ and the nominal *-limbarna* ‘leg’. This root cannot occur in its bare form – you can’t just say *limbarna* ‘leg’ – you have to specify whose leg you are talking about. Pronoun affixes are inflections; the nominals themselves are inflecting nominals, either PREFIXING or SUFFIXING. Usually, the affixes can also be attached to other words as well, such as adjectives in Worrorran languages.

In Western Nyulnyulan languages about forty or so nominals take pronoun prefixes; these are quite similar to the prefixes to verbs, and make the same person and number distinctions (§6.3). Most are terms for body parts, usually of human beings, occasionally of animals; in addition, a few indicate personal representations, things like names and footprints that are considered to be essential aspects of a person. Table 7.2 lists the known prefixing nominals in three Western Nyulnyulan languages, as well as the half-dozen words of other parts-of-speech that take the same prefixes.<sup>7</sup>

Prefixing nominals account for only a fraction of the body-part nominals in the three languages. At least fifty other body-part nominals in each language do not take prefixes; for example, in Nyulnyul *mugurn* ‘hair’, *bardin* ‘skin’, *wurrul*

Table 7.2 Prefixing nominals in three Western Nyulnyulan languages

	<i>Nyulnyul</i>	<i>Bardi</i>	<i>Jawi</i>
<i>Body parts</i>			
head	-alm	-alma	-alm
forehead	-arnkarr	-nkarr(a)	
lips, mouth	-lirr	-lirr	-lerr
eye	-m	-imi	-miny
nose	-mirl	-imal	-marl
ear	-ilabab	-lamarr	
tongue	-angal	-yangal(a) ~ -jangal(a)	-(y)angarl
chin	-ward	-yorda ~ -jorda	
front of neck, throat	-many	-many(i)	-many
nape of neck	-ngkurn	-oonggan	
hand, arm	-marl	-marl(a)	-milirriny
finger	-marrangk		
elbow	-yalangkun	-yalanggoon ~ -jalanggun	
armpit	-mbarrm	-nganyboo	-nganybu
back	-k	-ya ~ -ga	-ya ~ -ga
stomach	-ng	-ngoo	-ngu
navel	-jirrjirr, -kurrinykurriny	-roonggooroongg(oo)	
anus	-ur	-roo	
loins, anus, lower back	-migil	-imoonggooloo	
leg	-mird		-langka
knee		-imidi	-mird
calf, lower leg		-lar	
foot	-imbarl	-imbal(a) ~ -yambala	-ambal
thigh	-rnmurr	-nmoorr(oo)	
body	-kard	-yarda ~ -karda	
chest, breast	-wink	-imar(a)	
tail	-wal	?-yala ~ -jala	-yal
gill		-marryi	
<i>Personal representations</i>			
footprint, tracks	-jimbarl		
appearance	-ginbal	-inbal(a)	
shadow, reflection, soul	-marraj	-minggarr	
name	-lawirl	-nga	-nga
<i>Other parts-of-speech</i>			
believe	-mungk	-moonggoon	-minggon
self, alone	-malkang	-malgang	
tabooed	-yam	-yamu ~ -jamu	
lack, want	-malugul		
like		-ngoong	
taste		-yarra ~ -jarra	
right		-molon	

(Table 7.2 continued)

Table 7.2 Continued

	<i>Nyulnyul</i>	<i>Bardi</i>	<i>Jawi</i>
<i>Uncertain: potentially prefixing</i>			
back of head		-nggan	
palm of hand		-ngonyi	
penis		-rnda	
vagina		-wa	

‘fingernail’, *jimindi* ‘fontanelle’, etc. are non-prefixing. Prefixing body-part nominals do not form an arbitrary set: they represent the most basic and central parts of the human body – the most inalienable parts of the body. Similarly, the other prefixing nominals refer to inherent aspects of a human being’s persona that constitute them as persons.<sup>8</sup>

The system of prefixing nominals is virtually lost in Eastern Nyulnyulan languages: Yawuru and Nyikina do not have it, and in Warrwa it is marginal. Of the two last speakers, only the elder one used the system, and then inconsistently and for about a dozen nominals, including: *-(u)ngu* ‘stomach’, *-lirr* ‘mouth’, *-liwa* ‘ear’, *-alma* ‘head’, *-mala* ‘hand’, *-(m)barrma* ‘armpit’, *-midi* ‘leg’, *-(ng)kurinykuriny* ‘navel’, *-yambala* ‘foot’, *-yangalany* ‘tongue’, and *-nyji* ‘back’. In Yawuru and Nyikina cognates of prefixing nouns in Western Nyulnyulan languages do not occur in what corresponds to their bare root form in the latter languages, but rather with an initial *ni-* (the third person singular prefix in languages with prefixes). For instance, Nyikina has *nilirr* ‘tooth’ and *nimilgarr* ‘eye’, not *\*lirr* or *\*milgarr*.

Interestingly, in Warrwa and Big Nyikina there is also a small set of nominals that obligatorily take pronoun suffixes; these suffixes are similar in form to the possessive pronouns (see §6.2), and make the same person-number distinctions. The system is not productive in either language. In Warrwa it is restricted to a small set of body-part nominals, including *ngunii-* ‘nose’, *kurndi-* ‘shoulder’ and *balngany-* ‘thigh’. Again these are clearly inalienably possessed parts. In Big Nyikina the set is somewhat larger, and kin-terms and certain other inalienably possessed nominals other than body parts can take the pronoun suffixes. Nice illustration is provided by *buru* ‘place, camp’. With a pronoun suffix, as in *buru-yina* (place-his/hers), it must mean ‘his/her conception (or other culturally significant) site’ or ‘his/her sleeping place’; it cannot mean ‘his camp’, for which a free possessive pronoun must be used. With the pronoun suffix an inalienably possessed place is referred to; without it the place is alienably possessed. Some body-part nominals in Small Nyikina (and possibly Big Nyikina) have the third-person singular pronoun suffix as part of their root form (e.g. *kurndijina* ‘shoulder’, *balnganyjina* ‘thigh’): it is not a suffix, and can’t be replaced by other pronoun suffixes.

Worrorran languages also have pronoun prefixes to body-part nominals, again constituting a smallish subset of the more inalienable parts. In Wunambal about

a score of body-part nominals take prefixes; a little over half of this number do in Gunin/Kwini. In some languages (e.g. Ngarinyin, Wunambal, Worrorra, and Unggumi) the same prefixes are attached to adjectives, where they indicate the person or thing displaying the quality. There is much agreement between Worrorran and Western Nyulnyulan languages in terms of which body-part nominals are prefixed, and it seems reasonable to assume that inalienability is the critical factor in Worrorran languages also.<sup>9</sup>

Nominals for kin relations in most, if not all Worrorran languages take suffixes specifying the ‘possessor’. The system of suffixing is more regular than the system of prefixing, and the suffixes resemble the oblique pronoun enclitics to verbs (see §6.3). They come in distinct singular and in plural forms, these being used according to the number of possessed kin, as in Ngarinyin *gurndi-ngi* ‘my husband’ vs *gurndi-ngirri* ‘my husbands’, and *gurndi-ni* ‘your husband’ vs *gurndi-nirri* ‘your husbands’.

## 7.4 Noun classes and gender systems

In a number of Indo-European languages – including French, Spanish, German, Swedish, and Russian – nouns are divided into two or three genders. In French every noun is either masculine or feminine. Different forms of the definite and indefinite articles and of some adjectives are used with singular nouns depending on whether they are masculine or feminine. One says *le garçon* ‘the boy’ and *le père* ‘the father’ with the masculine definite article *le*, but *la femme* ‘the woman’, and *la tante* ‘the aunt’, with the feminine definite article. Because of these grammatical differences we can speak of two GENDERS or NOUN CLASSES in French. Nouns denoting people are almost always masculine or feminine according to the person’s sex. For other nouns things are not so simple, though which gender nouns are assigned to is not entirely arbitrary: for some nouns, it is according to a feature other than sex; for others the phonological form of the noun is relevant.

Some Kimberley languages divide their nouns into classes according to similar grammatical features. Worrorran and Jarrakan are such languages. Noun classes can be recognised according to the different forms of words – primarily determiners and adjectives – that occur in NPs along with a noun.

### 7.4.1 Noun classes in Jarrakan languages

Jarrakan languages distinguish two or three genders. Kija has three genders, masculine (MASC), feminine (FEM), and neuter/plural (N/P). Masculine nouns with roots ending in vowels take the gender suffix *-ny*; those with roots ending in consonants take *-ji*. For feminine nouns, the suffix is *-l* for vowel final roots, and *-Vl* (where V is the same as the previous vowel) for roots ending in consonants. And neuter/plural nouns with vowel final roots take the suffix *-m*; those with roots ending in laterals or *rr* take *-e* ~ *-u*; and those with roots ending in other consonants take *-be* ~ *-bu*. Adjectives, possessive pronouns, and interrogatives take different suffixes according

to the gender of the noun they modify: *-ny* ~ *-ji* for masculine; *-l* ~ *-el* for feminine, and *-m* ~ *-e* ~ *-u* for neuter/plural. (The second allomorph in each case follows a consonant.) The following examples illustrate this pattern of agreement:

- (7.19) *timana-ny*      *ta-ny*      *jirrawu-ny*      Kija  
 horse-MASC    that-MASC    one-MASC  
 ‘that one stallion’
- (7.20) *timana-l*      *ta-l*      *jirrawu-l*      Kija  
 horse-FEM    that-FEM    one-FEM  
 ‘that one mare’
- (7.21) *timana-m*    *ta-m*      *melakawu-m*      Kija  
 horse-N/P    that-N/P    many-N/P  
 ‘those many horses’

Nouns referring to human beings are usually masculine or feminine according to sex, or neuter/plural if plural in number. The same goes for nouns referring to large animals, at least when their sex is obvious. But nouns denoting most other animates are assigned to either the masculine or feminine gender, regardless of sex. Sometimes the reason is mythological – for instance, in the Dreamtime the turtle was a woman, and the word for ‘turtle’ is usually feminine: *tarntal*, *wayiwurrul*, *pilitpal*, *palarnel* (according to dialect); the crocodile and bat were men, and the nouns *lalangkarrany* ‘crocodile’ and *pinyjirrminy* ‘bat’ are masculine. When more than one such animate is referred to, it is assigned to the neuter/plural class.

For inanimate nouns gender assignment is a complicated matter, though in most cases a noun referring to a single thing is assigned to either masculine or feminine gender, and nouns referring to more than one thing to neuter/plural. However, some inanimate nouns are usually neuter/plural, even if only one thing is referred to. This is the case for instance for *marnem* ~ *thunpam* ‘fire’, *kurr-ngam* ~ *kurlum* ‘water’ and *mayim* ‘vegetable food’, and most body-part nouns. However, especially when particular individual instances are being referred to even these nouns can be assigned to one or the other of masculine and feminine gender. Assignment of nouns to classes in Kija is not chaotic, and the principles are currently under investigation.

The situation in Miriwoong seems similar, although there are just two genders, masculine and feminine. The gender of most nouns (other than about a score of kin-terms) is not marked by a suffix on the noun itself, but only on adjectives, determiners, number words, and possessive pronouns in the NP. The suffixes are *-ng* MASC and *-ny* FEM.

#### 7.4.2 Noun classes in Worrوران languages

Worrوران languages all distinguish at least four noun classes. There are differences in the systems across languages of the three groups, Worrورانic,

*Table 7.3* Some noun class marking affixes and determiners in Unggumi

<i>Class</i>	<i>Noun/adjective suffix</i>	<i>Adjective prefix</i>	<i>Verb prefix</i>	<i>'this'</i>	<i>'that'</i>	<i>'that'</i>
YA	-ya	i-	ga-	inya	yunoo	inggerri
NY	-nya	nyi-	nyi-	nyinye	nyunoo	nyinggerrinya
M	-ma	ma-	ma-	manma	monoo	manggerri(ma)
W	-ngga	wi-	gu-	wun.ga	wunoo	wunggerri(ngga)

Ngarinyinic, and Wunambalic. But in each language the classes are marked on adjectives, determiners, and possessive pronouns modifying nouns, and by the forms of pronoun prefixes and enclitics to inflecting verbs.

Unggumi has four noun classes, marked not just on modifying words, but often also on the noun itself, as in other Worroric languages. Table 7.3 shows some of the main class markers, labelled according to recurrent phonological shapes rather than semantically. Only one form is shown for each marker, though in many cases there are a number of allomorphs.

There are two types of adjectives in Unggumi: prefixing, that take a prefix specifying the class of the noun; and suffixing, that take a suffix (identical to the suffixes that go on nouns) marking the noun's class. Adjectives usually take either a prefix or a suffix, not both; prefixing adjectives, however, sometimes also take suffixes. The following examples are illustrative:

- |        |   |  |         |
|--------|---|--|---------|
| (7.22) | a. <i>i-rnana-ngarri inya</i><br>Y-tall-COM      this:Y<br>a. ‘this tall (man)’         | b. <i>inye jowinggarri-ye</i><br>this:Y      big-Y<br>b. ‘this big (man)’                            | Unggumi |
| (7.23) | a. <i>nyi-rnana-ngarri nyinya</i><br>NY-tall-COM      this:NY<br>a. ‘this tall (woman)’ | b. <i>jowinggarri-nya jili-nya</i><br>big-NY      woman-NY<br>b. ‘a big woman’                       | Unggumi |
| (7.24) | a. <i>ma-rnana-ngarri weerri-ma</i><br>M-tall-COM      cliff-M<br>a. ‘a tall cliff’     | b. <i>jowinggarri-ma manma weerri-ma</i><br>big-M      this:M      cliff-M<br>b. ‘this big cliff’    | Unggumi |
| (7.25) | a. <i>wi-rnana wumba-ngga</i><br>W-tall      tree-W<br>a. ‘a tall tree’                 | b. <i>burdu-ngga yandal-ngga wun.ga</i><br>little-W      nest-W      this:W<br>b. ‘this little nest’ | Unggumi |

Nouns are again not assigned arbitrarily to the four classes in Unggumi. Although it is often impossible to predict which class a noun will go to, some generalisations can be stated. Nouns referring to human beings normally go to the Y and NY classes, depending on sex: nouns denoting males go to the Y class; nouns

denoting females go to the NY class. These two classes, however, also contain nouns denoting lower order animates. Only nouns for larger animates that people habitually interact with are assigned to classes according to sex. What principles lie behind the assignment of other animates is not known – why for instance do most nouns for fish go to the Y class, and about twice as many bird nouns go to the Y class than to the NY class? Perhaps some can be explained by cultural beliefs, though this is yet to be established.

The other two classes contain mainly nouns denoting inanimates. Nouns denoting locations or places mostly belong to the M class. Nouns denoting entities – including trees and vegetation, and often things deriving from them, such as ‘fire’, ‘ashes’, ‘smoke’, and so on<sup>10</sup> – generally go to the W class.

Body-part nouns are spread across the four genders in a complicated way, though certainly not completely randomly. Most belong to the M and W classes. Those in the M class tend to refer to parts with large surface areas, such as parts of the torso; those in the W class tend to denote appendages – parts that are more thing-like than place-like. The few that go in the M and F classes are primarily body parts that might be said to have ‘a life of their own’ (can do things or can be used), or contribute most to the appearance of the human being as a person.

Ngarinyin has five noun classes, marked by affixes to modifying words and by bound pronouns in inflecting verbs. There is a masculine class, a feminine class, and a neuter/plural class. The first two classes include nouns denoting human beings, assigned according to sex; when referring to more than one person, the noun is reassigned to the neuter/plural class. Nouns denoting other things can also be assigned to the neuter/plural class, indicating a mass or collective. There are also two neuter classes, M and W. Nouns in the M class cover places and plants, especially edible ones; nouns in the W class are associated with times, rocks and minerals, trees, wood, and wooden objects, and abstract things.

Wunambal languages usually have five or six noun classes, which, as in Ngarinyin, are not marked the noun itself. Gender is not distinguished for human nouns: all singular human nouns go into one class regardless of sex. Gunin/Kwini has five genders: B for nouns denoting human beings; A for nouns denoting most other animates; W for most nouns for trees; M for nouns denoting places and geographical features; and a small N class.

### 7.4.3 *Concluding remarks*

Membership of noun classes in Kimberley languages seems never to be entirely haphazard, and always has some semantic basis. Usually there is some overlap between the classes, nouns that belong to more than one class; when this happens, different class assignments almost always carry meaning differences. Much more work is required before we can ascertain the extent to which noun classes in Kimberley languages are semantically motivated, and what features are relevant. Sometimes phonological associations also obtain, though usually only to a limited extent. In a few languages, however, there may be a strong tendency for



words of a certain phonological shape to belong to a particular class. A good example is reported by J.R.B. Love for Worrorra, where the majority of nouns ending in either *-m(a)* or *-b(a)* belong to the M class:<sup>11</sup>

The Worora word for vegetable-fibre string is *irkalja*, a masculine noun, represented by the pronoun *indja*. Sisal hemp was grown and used for string making. When asked the gender of hemp the men replied “*indja*”; but one man asked the English name of the leaf. He was told “Hemp”. The men repeated “’emp, ’emp, mana”. At first they designated the hemp plant *indja*, probably thinking “*Irkalja*”; but, on hearing the sound of the English word, ending in *p*, they declared that the word is *mana*.

(Love 1934: 20)

Recent research suggests that systems of noun classes generally have important uses in discourse, as mentioned in §12.1.

## 7.5 Other nominal morphology

### 7.5.1 Derivational affixes

Most Kimberley languages have at least a few derivational morphemes, invariably suffixes, that derive new nominal stems. As already mentioned (§7.2), in some languages the comitative marker is a derivational suffix, or a postposition with derivational uses. Ablative postpositions sometimes also have derivational uses; this is the case in Gooniyandi: *wayandi-nhingi* (fire-ABL), the nickname for a man who as a child rolled into a fire.

One common type of derivational suffix is an ASSOCIATIVE, deriving from a nominal another meaning ‘characterised by, closely associated with the thing, activity, place, or whatever denoted by the root’. This association is frequently one of habitual active involvement – often with the implication of ability or expert-hood – like the English ‘agentive’ *-er* of *baker*, *cooker*, *boiler*, *banker*, etc. Yawuru has three agentive suffixes, *-jinaburu*, *-dany*, and *-ngurru*, the meaning differences between which are unclear. The suffix *-jinaburu* usually derives an agentive nominal, as in *nurlu-jinaburu* (song-AG) ‘good songman’, *jalangardi-jinaburu* (goanna-AG) ‘good goanna hunter’. Sometimes the derived nominal designates an instrument, as in *niminy-jinaburu* (eye-AG) ‘glasses’, and *nganka-jinaburu* (word-AG) ‘radio’. The suffix *-dany* is more restricted, and occurs on just a few nominals, as in *warli-dany* (meat-AG) ‘good hunter’, and *bili-dany* (anger-AG) ‘aggressive person’. The suffix *-ngurru* can derive agentive nominals from uninflecting verbs and other parts-of-speech, as in *janka-ngurru* (cure-AG) ‘healer, medicine man’ and *yardab-ngurru* (crawl-AG) ‘cripple, disabled person’. The semantic connection can be opaque, as in *jalbarn-ngurru* (feather-AG) ‘U-shaped hollow log used for collecting rain water’. Both *-dany* and *-ngurru* are

found in unanalysable roots designating animal and plant species and place names.

Some languages have a suffix that indicates a negatively valued characteristic. An example is the Nyulnyul suffix *-kud*, as illustrated by *barnd-kud* (dirt-CHAR) ‘dirty’, and *nimird-kud* (leg-CHAR) ‘lame, cripple’. Another is the Ngarinyin *-moya* ~ *-maya*, meaning ‘one who has been permanently effected (usually adversely) by an incident crucially involving’ (Rumsey 1982: 124). Examples are *wilmed-maya* (wire-CHAR) ‘someone who sustained injury in an incident involving wire’ and *junguri-moya* (boab:tree-CHAR) ‘someone who sustained injury in an incident involving a boab tree’.

A PRIVATIVE derivational suffix meaning ‘without’, ‘lacking’ or ‘-less’ is found in some languages. Jaru *-mulungu* PRIV can be attached to nominals, demonstratives, uninflecting verbs, and infinitival forms of inflecting verbs (see §8.5.2); some examples are: *bin.ga-mulungu* (creek-PRIV) ‘creekless’, *garna-mulung* (spear-PRIV) ‘woman’ (cf. *garna-yaru* (spear-COM) ‘man’), and *yan-u-mulunga* (walk-INF-PRIV) ‘without walking’.

Another common derivational suffix is the SEMBLATIVE (SEM), meaning ‘like’. Jaru has *-marraj*: *dimana-marraj* (horse-SEM) ‘like a horse’, *nyamba-marraj* (what-SEM) ‘like what, what sort of’, also ‘how much’. In languages with adjectives this suffix may derive adjectives, as does Ngarinyin *-gajin* SEM, for example, *wongay-gajin* (woman-SEM) ‘like a woman’.

Most languages have suffixes that are limited – or virtually limited – to kin-terms. Some have a POSSESSIVE derivational suffix indicating a third person possessor. Gooniyandi has *-wa*: *ngarranyoo-wa* ‘his/her/its/their mother’ and *ngaboo-wa* ‘his/her/its/their father’. This suffix is occasionally attached to other nominals expressing social relations, for example, *jimarroo-wa* ‘his/her/its/their (ritual) mate’. Bunuba *-way* is similar, as is Jaru and Wanyjirra *-nyan*; in Warlpiri, however, cognate *-nyanu* can apply to the speaker’s, the hearer’s, or another person’s relative. In Miriwoong, *-gang* ~ *-gany* marks a third person possessor for kin-terms and body-part nominals. The first form is used for a male possessed (*ngaba-gang* ‘his/her father’), the second for a female possessed (*ngaji-gany* ‘his/her sister’).

Bunuba, Gooniyandi, Jaru, and Wanyjirra have a distinct second person possessive suffix, also used for all numbers. In Gooniyandi it is *-wadi* ~ *-badi*: *nyaany-badi* ‘your uncle’, *ngaboo-wadi* ‘your father’, and so on; the same suffix is used for singular and plural addressees. In Jaru and Wanyjirra the suffix has the form *-nga*, as in *ngama-nga* ‘your mother’. No language has a corresponding first person possessor form.<sup>12</sup>

Almost all Kimberley languages have a DYADIC suffix, a derivational suffix attaching to kin-terms and referring to two people in the specified kin relation. Jaru *-langu* is such a morpheme: *gawulu-langu* (sister-dyad) ‘two people related as sisters’, *barngu-langu* (cross:cousin-dyad) ‘two people related as cross-cousins’, and *ngabu-langu* (father-dyad) ‘two people related as father-child’. Note the difference between this meaning and a dual: ‘two fathers’ could refer to two men who are each

fathers (to different individuals), whereas the dyadic form ‘father-dyad’ refers to two individuals who are related by fatherhood – one is the father of the other.

The derivational suffixes mentioned above are amongst the most common in Kimberley languages. Others exist, though they are usually more limited in distribution. Examples include: ‘members of a subsection’ (Gooniyandi *-warnoo*); ‘person associated with a place, countryman’ (Gooniyandi *-wanggoo*, Bunuba *-wanggu*); ‘everyone belonging to a place’ (Gooniyandi and Bunuba *-warrawarra*); ‘denizen/dweller of’ (Kija *-ngarnany* ~ *-ngarnal* ~ *-ngarnam*); ‘something that does not’ or ‘someone who cannot’ (Kija *-wurruny* ~ *-wurrul*); ‘someone having big (body part)’ (Kija *-kiny* ~ *-kil* ~ *-kim*); ‘place of’ (Ngarinyin *-mardi*); ‘another, a different’ (Jaru *-gariny* ~ *-wariny*, Gooniyandi *-wanya* ~ *-wany*); ‘large number or quantity of’ (Gunin/Kwini *-nba*); and so forth.

### 7.5.2 Reduplication

One common way of deriving nominal stems, found in all Kimberley languages, is by REDUPLICATION – repeating the root, which may be a nominal or another part-of-speech. Reduplication can be either total (where the entire root is repeated), or partial (where part of the root only is repeated). Reduplication usually indicates plurality, that a number of things are being referred to as a group. This is illustrated by the following Bunuba examples: *ma-mabilyi* ‘little ones’ (from *mabilyi* ‘little’), *jalu-jalungurru* ‘good ones’ (from *jalungurru* ‘good’), *naḍaḍa* ‘short ones’ (from *naḍa* ‘short’), and *nhungu-nhungu-way* ‘their husbands’ (from *nhungu-way* ‘her husband’).

Reduplication of inanimate nominals sometimes gives rise to words that are more frequently used as qualifiers than as referring expressions (as their unreduplicated counterparts may usually be used). For instance, reduplicating *dagoorla* ‘depression, hole’ and *jarringgi* ‘point, sharp’ in Gooniyandi gives *dagoorla-dagoorla* ‘rough (of a road), covered with depressions’ and *jarringgi-jarringgi* ‘spiky, covered in sharp points (e.g. limestone)’. Similar examples are found in Yawuru, for example, *mukudal-mukudal* ‘striped’ (*mukudal* ‘scar, cicatrice’), *bandil-bandil* ‘spotted, striped’ (*bandil* ‘curving, drawing’), and *rdirndu-rdirndu* ‘tangled’ (*rdirndu* ‘node’).

Sometimes reduplication has an intensifying effect, as in Gooniyandi *jiginya-ginya* ‘very little’ from *jiginya* ‘little’, and *wirrga-wirrgali* ‘very blue (of the sky)’ from *wirrgali* ‘green, blue’. Similar is Bunuba *giliḷandirri* ‘very big’, a partial reduplication of *giliḷandirri* ‘big’. Reduplications can also involve irregular meaning changes. In Nyulnyul, according to Nekes and Worms (1953), *kujarr-kujarr* (two-two) means ‘double, twofold, hesitating, divided’, and *wamb-wamb* (man-man) means ‘for men only, sleeping-house for young men’.

In many languages a fair number of unanalysable nominal roots involve reduplication of meaningless formatives. Names for animal, especially bird species, are often reduplications of this type, as in Gooniyandi *diyadya* ‘peewee’, *biny-biny* ‘crimson chat’, *jangalangala* ‘red ant’, and Nyulnyul *walkwalk* ‘salmon’,<sup>13</sup> *bulabul* ‘lizard species’, *dinydiny* ‘grasshopper’.

### 7.5.3 Number marking

No Kimberley language has obligatory number inflections on nominals. A nominal can usually be interpreted as either singular or plural depending on context. For instance, (7.26) and (7.27) both involve *wamb* ‘man’; but in the former a single man is referred to, whereas in the latter more than one is referred to. We can tell this from the form of the inflecting verb: *injid* indicates that a single person is involved, *ingirrijid* that it is more than one person.

(7.26) *wamb injid* Nyulnyul  
 man he:went  
 ‘The man went.’

(7.27) *wamb ingirrijid* Nyulnyul  
 man they:went  
 ‘The men went.’

In some languages with noun classes, it will be recalled, plurality is indicated by assignment of the nominal to a certain class (see §7.4); usually this class is marked on another word, not on the nominal itself.

Number is sometimes specified on nominals. As mentioned in the previous two subsections, specifically plural nominal stems are sometimes derived from nominal roots by derivational suffixes or reduplication. Many Kimberley languages do have number-marking morphemes that can optionally be attached to nominals, usually with human reference. Ngarinyin has two, *-yirri* ~ *-rri* ~ *-nyirri* for dual number (i.e. ‘two’) and *-yina* ~ *-na* ~ *-nyina* for paucal number (i.e. ‘a few’); there is no suffix indicating plural number. These suffixes are quite infrequent in speech.

Number suffixes in Australian languages are often presumed to be derivational suffixes. Although this seems to be the case for Gunin/Kwini *-nba* (see ‘large number or quantity of’), it is not obvious that it is a good analysis for the Ngarinyin number suffixes. It is certainly not viable for the number-marking morphemes in Gooniyandi, *-yoorroo* ~ *-joorroo* ‘dual’ and *-yarndi* ~ *-jarndi* ‘plural, more than two’ (the *j*-initial allomorphs occur following stops and nasals, the *y*-initial allomorphs elsewhere). These are postpositions: they behave like case-marking postpositions, attaching themselves one per phrase, usually on the same word that takes the case-marking postposition, and preceding it: *ngirndaji-yoorroo-ngga yoowooloo* (this-du-ERG man) ‘by these two men’, *goornboo-yarndi-yoo garndi-wangoorroo* (woman-pl-DAT many) ‘for many women’. The phrase-marking postposition status of *-yoorroo* ‘dual’ is brought out clearly in the following example:

(7.28) *limba-yoorroo wardjirriyi/* Gooniyandi  
 policeman-du we:two:went  
 ‘The policeman and I went.’

In this case reference was being made to just one *limba* ‘policeman’. It is the full NP, referring to the speaker as well that is dual in number – this NP would take a shape like *ngidi-yoorroo limba* (we exclusive-du policeman) ‘we two including the policeman’. It is usually only if the other person is a third person – not the speaker or addressee – that they would be specified separately, as in (7.29). In such examples, the dual marker serves as a conjunction. This usage of the dual-number postposition is most common with names; *bluey-yoorroo-ngga* (bluey-du-ERG) will usually mean ‘by Bluey and another person’, not ‘by two persons named Bluey’. The plural postposition is used in a similar way to specify an additional two or more others.

- (7.29) *bidi ngilmil moodiga-ngarri wardbirri miga ngilmil*      Gooniyandi  
 they east:side car-COM      they:went thus east:side  
*policeman-joorroo: Cherrabun maja/*  
 policeman-du      Cherrabun boss  
 ‘They went around the east side, in a car, that way around the east, the policeman and the Cherrabun boss.’

Bunuba has a separate dual marker *-way* (a different morpheme to the kinship possessive suffix mentioned in §7.5.1) that attaches to personal names, and indicates a pair consisting of that person plus another person:

- (7.30) *jimarri bindayminy-way yatha'yiirrayntha*  
 mate [man's:name]-PAIR we:two:were:sitting  
*yilngarri-wiya*      Bunuba  
 altogether-DEF  
 ‘My mate *Bindayminy* and I have been sitting down [together] for a long time.’

A similar use of *-nyarri* COM<sub>2</sub> in Warrwa was illustrated in example (7.15). The free number word *mejerri* ‘two’ is used in a comparable way in Ngarinyin: *Junguri mejerri* ‘two people, one of who is Junguri’.

## 7.6 Noun phrases

### 7.6.1 Structure of noun phrases

Few detailed investigations have been undertaken into the structure of NPs in Kimberley languages. Most grammars go no further than stating the range of parts-of-speech that can occur in NPs, and generalisations about their order, typically somewhat weak tendencies (e.g. ‘demonstratives usually precede the referring noun’). Even in terms of these tendencies language differ. For instance,

in Jaru determiners usually occur initially; in Ngarinyin and Gunin/Kwini they almost always occur finally; but in Gooniyandi they show no strong preference either way.

An alternative approach to NP structure disregards the parts-of-speech in an NP and focusses on the functions of the words within the phrase. This is not usually an easy approach to adopt, since these functions are rarely formally marked in NPs and the meaning differences are usually subtle; moreover, there is a strong tendency to omit that which is predictable. In what follows, I outline the main points of such an analysis of the Gooniyandi NP.

Put simply, we distinguish three primary grammatical functions in NPs; all words in an NP serve precisely one of them. One is REFERENT SPECIFICATION: one or more words in the NP specify the referent, designating it in terms of a label, like *dog* in *the big old dog*. This is the function of the nominal that singles out the referent lexically. A second is REFERENCE MODIFICATION, where the words take on a modifying role: they modify the reference of specifying nominals, zeroing in more precisely to the referent. They contribute, that is, to the identification of the NP referent. The third grammatical function is REFERENT MODIFICATION: the words provide additional information about the referent, adding to what is known about it, filling in the features of the thing, which is presumed identifiable. The structure of Gooniyandi NPs can be described as follows:

(7.31) (REFERENCE MODIFIERS)–REFERENT SPECIFIER–(REFERENT MODIFIERS)

Every NP must have a referent specifier, a nominal denoting the referent; this word may be omitted if it conveys predictable information. It may also have a reference modifier, which always precedes the referent specifier, and/or a referent modifier, which always follows the specifier.

In most cases the referent specifier is a nominal or (cardinal) pronoun. In the a. examples in (7.1)–(7.3), the second word serves as the referent specifier, while in the b. examples the first word does. Referent specifiers need not be single words; they may be pairs of nominals juxtaposed to one another, as in *yoowooloo goornboo* (man woman) ‘men and women’, or linked together by a number-marking postposition, as in (7.28) and (7.29).

Reference modifiers help to pin down the thing referred to by the NP; this is done in three main ways. (1) It may be ‘determined’ – the referent may be linked to the speech situation or to shared knowledge by a determiner (see §6.4); alternatively, it may be linked to some other thing, presumed identifiable, and selected as standard of comparison (as in *yaanya birdi* (other leg) ‘the other leg’). (2) It may be specified in terms of number, by a word indicating how many things, or how large a quantity, are being referred to. And (3) it may be classified, its type being indicated by an alternative lexical specification. This may be by specifying the generic type to which it belongs, as in, for example, *gamba yiwindi* (water rain) ‘rain’ (rain is a type of water); by specifying the whole of which it is a part, as in *jinali jalgoodoo* (spear shaft) ‘shaft of a spear’; by some characteristic

physical trait, as in *lambardi jadal* (little saddle) ‘racing saddle’; and by a variety of other ways (e.g. *garrwaroo warda* (afternoon star) ‘the evening star, Venus’). These three types of reference modifier occur strictly in the order (1)–(2)–(3).

Referent modifiers tell us more about a thing presumed identified; they can specify a quality displayed by the referent, as well as an accidental circumstance that the thing might be in, including its relative distance from the speaker. In most cases only one referent modifying nominal is found in an NP; however, it is possible to include more, as in *girili ngamoo-nhingi mindirdi* (stick before-from dry) ‘an old dry stick’ and *yoowooloo garayili girrabingarri* (man much long) ‘a very tall man’.

A number of statistical tendencies associate words with NP functions; there are few absolutely impossible associations. However, the different orders contrast in terms of the functional structure specified in (7.31). To provide some intuitive ‘feel’ for the meaning contrasts involved, let us consider two illustrative examples.

First, consider the nominal *jiginya* ‘small, little’. This word can serve almost any NP function with the exception of (1). It can specify quantity, as in *jiginya gamba* ‘a little (small quantity of) water’; it can indicate the type of thing as in *jiginya marla* (little hand) ‘finger’; it can specify the thing being referred to, as in *ngirndaji jiginya* (this little) ‘this child’; and it can specify a quality of the referent, as in *marla jiginya* (hand little) ‘small hand’.

Second, number words can serve in reference modification of types (1) and (2), as well as in referent modification. In *yoowarni-nyali mayaroo* (one-still house) ‘the same house’, *yoowarni* has a determining function, identifying the house as a known instance. In *yoowarni gamba* (one water) it serves a quantifying function, designating one glass of water, or one wet season: the reference of the NP is tightened up, as it were. Note the contrast with *yoowooloo yoowarni* (man one) ‘one man’, where *yoowarni* ‘one’ does not select one person from a group of possibilities, but rather indicates ‘(the) man, being one in number’, the man being presumed identifiable. This distinction can perhaps be brought out more clearly by comparing the behaviour of number words with nominals and pronouns. With nominals the number word usually occurs first, effectively saying ‘select so many things of the specified type’, for example, select one item of designation ‘man’. For pronouns, this is not usually what one wants to do; more often one wants to use the number qualifyingly, as in *ngidi-yoorroo garndiwirri* (we-du two) ‘we two,’ that is, ‘we, who number two’. Contrast this with *garndiwirri ngidi* (two we) for which the most appropriate gloss is ‘(the) two of us’.

### 7.6.2 Possession

The most common ways of indicating possession within NPs in Australian languages are by either: (i) a possessive pronoun indicating the possessor, together with a nominal specifying the possessed item, as in (7.32); or (ii) a dative marked NP designating the possessor plus a nominal specifying the possessed item, as in (7.33).



(7.32) *ngarragi riwi / marla* Gooniyandi  
 my country hand  
 'my country/hand'

(7.33) *ngoorroo-yoo yoowooloo tharra / marla* Gooniyandi  
 that-DAT man dog hand  
 'that man's dog/hand'

Notice that the same constructions are used irrespective of the nature of the possessed item: there is no distinction between alienable and inalienable possession at NP level in Gooniyandi. This seems to be the case for most Kimberley languages: there are few (if any) unambiguous cases in which different NP constructions are used for alienable and inalienable possession.<sup>14</sup>

There are other ways of expressing possession in NPs in Kimberley languages. In Western Nyulnyulan languages type (ii) construction are not used: the postposition cognate with the dative in Nyikina and Warrwa does not mark a possessor in an NP. Instead, what we find is a construction in which (iii) the possessor is denoted by a plain (unmarked) NP, and simultaneously by a possessive pronoun that usually occurs between the possessor NP and the nominal denoting the possessed item. Thus, in (7.34), the possessor *ibal jan* 'my father' is also denoted by *jin* 'his', which serves as a type of linker between the possessed *walang* 'spear' and the possessor NP. (7.35) and (7.36) illustrate the acceptability of other word orders, and that this construction is used for both alienable and inalienable possessions.

(7.34) *walang jin ibal jan* Nyulnyul, Jabirrabirr  
 spear his father my  
 'my father's spear'

(7.35) *kujarr uriny jirr-jirr baab yirr* Nyulnyul  
 two woman their-they child they  
 'two women's children'

(7.36) *bin wamb ni-marl jin* Nyulnyul  
 this man his-hand his  
 'this man's hand'

In the Eastern Nyulnyulan languages Nyikina and Warrwa, (iii) exists alongside (i) and (ii). In Yawuru, however, the third person possessive pronoun has become an enclitic to the possessor NP, and is effectively a genitive postposition.

Ngarinyin also shows constructions of all three types, with the qualification that the genitive postposition is used instead of the dative in type (ii) (see §7.2.3). The choice between the constructions depends on inherent characteristics of the possessor. If the possessor is a pronominal, it is represented by a possessive pronoun in a type (i) construction. If it is a personal name, construction (iii) is



used, with the personal name unmarked, and usually followed by the possessive pronoun (which occurs in the appropriate form according to the class of the possessed item),<sup>15</sup> as in (7.37). For all other possessors, human, animate, and inanimate, a type (ii) construction is used.<sup>16</sup>

- (7.37) *gadbungu*                      *anangga*                      *dambun*                      Ngarinyin  
           [personal:name]    his:singular    camp  
           ‘Gadbungu’s country’

### Further reading

For discussion of the uses of nominal cases or case-markers the best place to go is grammars of particular languages. Dixon (1980: ch. 10) discusses case-marking systems in various Pama-Nyungan languages (to the virtual exclusion of non-Pama-Nyungan languages), and attempts to reconstruct the markers in proto-Australian. Also worth consulting are Blake (1977) and Dixon (1976). Blake (1987: chs 2, 3 and 5) provides good coverage of many of the topics discussed in this chapter in the general context of Australian languages.

Heath *et al.* (1982) contains articles dealing with dyadic kin-terms in various languages; see McGregor (1996a) for more on Gooniyandi kin-terms. A number of books discuss noun class or gender systems in the world’s languages, including Corbett (1991) and two edited collections (both with articles dealing with Australian languages), Craig (1986) and Senft (2000). A collection of articles specifically on noun class systems in Australian languages is Harvey and Reid (1997). Possession has been dealt with extensively in the linguistics literature; Chappell and McGregor (1995) contains articles on inalienable possession in the languages of Australia and elsewhere. A slightly different version of the treatment of Gooniyandi NPs is in McGregor (1990: 253–76). Dench (1995) and Evans (1995a) apply basically the same approach to Martuthunira and Kayardild respectively; see also Harvey (1992).

## VERBS AND VERBAL CONSTRUCTIONS

### 8.1 Types of verb and verbal construction

Recall from §5.2 that almost all Kimberley languages have two different types of verb, INFLECTING VERBS (IVs) and UNINFLECTING VERBS (UVs), these being different parts-of-speech that contrast with one another in grammatical properties. IVs always occur in an inflected form; they cannot occur without one or more inflectional affixes peculiar to them. They usually form a smallish closed class that does not accept new words, such as borrowings from English or other Aboriginal languages; they are thus easily characterised as a part-of-speech. The number of IVs differs radically across languages, from about a dozen to several hundred. The larger their number the more likely the part-of-speech will not be absolutely closed: languages with several hundred IVs usually have a few means of deriving IV stems from IV roots, and membership is not as rigidly circumscribed as in languages with just a score or so of IVs.

UVs by contrast take few affixes, and in particular allow no inflectional affixes. It is difficult, if not impossible, to define UVs as a part-of-speech in purely morphological terms: the morphemes they occur with almost always occur with words of other parts-of-speech, especially nouns. UVs form an open class in all languages, frequently admitting borrowings from other languages, including English.

Almost all Kimberley languages have two radically different types of verbal constructions: SIMPLE VERB CONSTRUCTIONS (SVCs), consisting of just an IV; and COMPOUND VERB CONSTRUCTIONS (CVCs), consisting of an IV together with a UV (rarely two or more) or, less frequently, a word of another part-of-speech. Thus, whereas an IV can generally occur by itself (sometimes one or two may not be able to) a UV usually occurs along with an IV, although in most languages there are circumstances in which UVs can occur without an accompanying IV. Generally the IV and UV occur next to one another, with the UV in first position; occasionally the reverse order is found. Only rarely are IVs and UVs separated from one another.

Both construction types are found in Pama-Nyungan and non-Pama-Nyungan languages. Example (8.1) gives an SVC in Walmajarri; (8.2)–(8.4) are CVCs, the first with a UV followed by an IV, the second and third with an adverbial in the

place usually occupied by the UV. Whereas the UV must occur right before the IV, the adverbial need not.<sup>1</sup>

- (8.1) *manga-ngu pa-ø-rla lung-an-i ngarpu-wu*  
girl-ERG CAT-3sgSUB-3sgOBL cry-repeatedly-past father-DAT  
‘The girl cried for her father.’ Walmajarri
- (8.2) *parri pa-ø para-yan-an-i mana-nga* Walmajarri  
boy CAT-3sgSUB climb-go-repeatedly-past tree-LOC  
‘The boy climbed the tree.’
- (8.3) *Derby-karti pa-ø tikirr-yan-i* Walmajarri  
Derby-ALL CAT-3sgSUB return-go-PA  
‘He returned to Derby.’
- (8.4) *mayaru-karti ma-rna yan-ku tikirr* Walmajarri  
house-ALL CAT-1sgSUB go-FUT return  
‘I’ll return to the house.’

When the UV and IV are adjacent they are written as a single word in Walmajarri. In most languages they are consistently written as separate words. Whether or not to write them as a single word is not always easy to decide: criteria frequently contradict one another, so that in some respects combinations are word-like, in other respects they are not. To discuss the problems surrounding identification of words is beyond the scope of this book, and we will say no more than that the UV and IV always represent separate vocabulary items.

Both types of verbal construction refer to phenomena that occur at some point of time, to states, happenings, events, activities, processes, and so forth; all of these temporally-located ‘things’ are referred to as EVENTS, as mentioned in §5.3. By analogy with NPs, the two different constructions referring to events will be grouped together under the general term VERB PHRASE (VP).

As remarked in note 11 to Ch. 5, this use of the term verb phrase differs significantly from its normal use in linguistics, where it refers to (almost) everything other than the subject: the verb plus object (if it is transitive), indirect object, adverbials, and phrases specifying times, places, and so on. The idea behind this is that a clause can be divided into two primary parts, an NP followed by a VP; for instance, the English clause *the girl cried for her father* would consist of the NP *the girl* followed by the VP *cried for her father*. Accordingly, (8.1) would consist of the NP *manga-ngu* ‘by the girl’ followed by the VP *pa-ø-rla lung-an-i ngarpu-wu* ‘cried for her father’, and (8.2) would consist of the NP *parri* ‘boy’ and VP *pa-ø para-yan-an-i mana-nga* ‘climbed repeatedly in a tree’. Such a conception of the VP is difficult enough to motivate for English, let alone for Kimberley languages. There is no reason to believe that *pa-ø-rla lung-an-i* and *ngarpu-wu* in (8.1), and *pa-ø para-yan-an-i* and *mana-nga* in (8.2) form grammatical units together (see also Ch. 10). The

words frequently do not occur next to one another (compare examples (8.3) and (8.4)), and no particular meaning can be associated with the combination.

By contrast, the conception of VP adopted here is supported by the observation that the parts of the VP are almost always contiguous, and that a meaning – eventhood – can be associated with the unit. Whether or not the verbal constructions consist of a single word is immaterial.

## 8.2 Simple verb constructions

### 8.2.1 Basic structure of inflecting verbs

The structure of IVs in Walmajarri is fairly simple, and typical of a Kimberley Pama-Nyungan language. As examples (8.1)–(8.4) show, IVs consist of a verb root followed by one or more suffixes. We can describe the structure of the IV as follows – the terms are explained in the following subsections:

#### (8.5) ROOT-CONJUGATION MARKER-(ASPECT)-MOOD-TENSE-(ASPECT)

There are four obligatory items: the IV root itself, a conjugation marker (one of four consonants, or zero), a mood marker, and a tense marker. In addition, there are two optional components marking aspect. In the forms of the verb ‘go’ in (8.1)–(8.4) we have the IV root *ya-* ‘go’, the conjugation marker *-n*, the aspect suffix *-an* ‘repeated’, and tense suffixes *-i* past and *-ku* future.

Walmajarri has about forty IV roots, thirty-five of which may occur in SVCs, and four that are restricted to CVCs. Similar numbers of IVs are found in nearby Jaru and Wanyjirra. Slightly fewer are found in Gurindji and Ngarinyman, each with about thirty. Somewhat more are found in Nyangumarta (about 100), Warlpiri (about 115), and northern varieties of the Western Desert language (with some hundreds). With the exception of Western Desert varieties, few of these languages have means of deriving IV stems from roots.

In non-Pama-Nyungan languages the IV takes both inflectional prefixes and suffixes, and various enclitics as well. Example (8.6) shows the basic structure of the IV in Yawuru. (A number of details have been left out, including restrictions on which slots can be filled at the same time.)

#### (8.6) SUBJECT PRONOUN + (NASAL) + TENSE/MOOD + (NUMBER) + (CONJUGATION MARKER) + (REFLEXIVE-RECIPROCAL) + (NASAL) + STEM + (REFLEXIVE-RECIPROCAL) + (ASPECT) + (APPLICATIVE) + (DATIVE-IMPERATIVE/SUBORDINATOR) + (OBJECT/OBLIQUE PRONOUN) + (VOCATIVE)

Again, there are just three obligatory slots: a subject pronoun, indicating the person and number of the subject, a tense or mood marker, and the stem (which may be a root or a reduplicated root). The other slots are optional. The optional prefixes include a number marker, which further specifies the number of the subject;

a conjugation marker, and a reflexive-reciprocal prefix (indicating an event done by the subject to itself or among themselves). The optional nasals are not morphemes; they convey no meaning, and are inserted in certain grammatical environments for phonological reasons. The suffixes, all optional, include a reflexive-reciprocal suffix and an aspect suffix. The prefixes and suffixes are almost all inflections; the only exceptions are the reflexive-reciprocal prefix and suffix, which are derivational morphemes. The remaining morphemes are enclitics; pronoun enclitics were discussed in §6.3; some of the others are discussed in Ch. 10. Listed here are a few illustrative examples of IV forms:<sup>2</sup>

- (8.7) *inga-rr-ma-balu-nji-nda* Yawuru  
 3augSUB-aug-REF-hit-REF-PF  
 ‘They hit themselves.’ (Or ‘They hit one another.’)
- (8.8) *i-na-burna-rn-ngayu* *yila-ni* *nyamba* Yawuru  
 3minSUB-TR-bite-IMP-1minOBJ dog-ERG this  
 ‘This dog bit me.’ (Or ‘I was bitten by this dog.’)
- (8.9) *wal-a-kunba-jina* *milimili* Yawuru  
 2minSUB/FUT-TR-send-3minOBL paper  
*wa-ng-ga-bula-yi*  
 3minSUB/FUT-nasal-FUT-come-DAT  
 ‘Send him a message so that he will come.’

The structure of the Yawuru IV is typical of a Nyulnyulan language, and indeed of Kimberley languages generally. One atypical feature – shared with all Nyulnyulan languages – is the absence of object pronoun prefixes; these are found in most other non-Pama-Nyungan languages (see §6.3).

While it is generally possible to analyse inflected forms of IVs in Kimberley languages as sequences of morphemes in structural formulae like (8.5) and (8.6), this is sometimes difficult. Morphemes sometimes fuse together so tightly that it is difficult to distinguish between them, and in order for the morpheme-ordering formulae to work the linguist needs to set up very complicated rules. This is the case for tense marking in Gooniyandi: identifying separate tense markers is not easy, and might be regarded as somewhat artificial, at least in the sense that the linguists’ construction is unlikely to reflect anything in the speakers’ minds. And, even if you do, a number of irregularities remain. To illustrate, consider following present tense forms of +I ‘be, go’ (the initial hyphen is a reminder of the non-independent character of the inflected forms; see §6.1.3 on the special use of exclusive and inclusive):

<i>-ngiri</i>	‘I’	<i>-girri ~ -wirri</i>	‘we exclusive’
		<i>-garra ~ -warra</i>	‘we inclusive’
<i>-ginggiri ~ -nggiri</i>	‘you singular’	<i>-ginggirri ~ -nggirri</i>	‘you plural’
<i>-giri ~ -wiri</i>	‘he, she, it’	<i>-goorroo ~ -woorroo</i>	‘they’

Comparison with other tenses reveals that the characteristic feature of the present is the initial  $g \sim w$  (the choice depends on the preceding phoneme). But even this is missing from the first person singular form, and sometimes from the second person singular (when preceded by a vowel). To make the structural description TENSE + SUBJECT PRONOUN + I work for these forms requires rules that, for instance, derive the third person plural form *-goorroo* from something like *-gi + -birr + i*. This is possible, and a set of such rules can be devised to work for the majority of present tense forms. But there still remain irregularities; in particular, we have to admit that for singular number and present tense +I takes the exceptional form *-ri*, which exists nowhere else; nor do we find an *r* anywhere else as a marker of present tense. This has to be regarded as an irregularity, and *-ri* is best considered an unpredictable form taken by +I in certain circumstances.<sup>3</sup> Technically, such irregular root forms are called SUPPLETIVE.

Non-Pama-Nyungan languages differ considerably in terms of the number of IV roots they possess. Yawuru has just over eighty IV roots, all of which can occur in SVCs. Most Nyulnyulan languages have more: Nyikina has over 140, while most Western Nyulnyulan languages probably had over two hundred. All Nyulnyulan languages have means of deriving IV stems from roots. In the Worrorran family we find a low range of between ten and twenty in Gunin/Kwini and Wunambal; a mid-range of about a hundred in Worrorra; and a high range of several hundred in Ngarinyin. Jarrakan languages all have around a score of IV roots; slightly more – around thirty – are found in Jaminjung and Murrinh-Patha.

The situation in the two Bunuban languages is more complex. Gooniyandi has no IVs at all. What were once IVs have now become grammatical morphemes that cannot themselves refer to events: they occur exclusively with UVs, the only lexical verbs in the language (see §8.4). There is thus a single verbal construction in Gooniyandi, which still resembles in many respects the CVC of other languages. We therefore take the liberty in this chapter of speaking of IVs and UVs in Gooniyandi, even though in a grammar of the language one would not use these terms, and would instead speak of classifiers (corresponding to the IV roots) and verbs (corresponding to the UVs). Doing this is not too misleading, as the classifiers still inflect like IVs, and show a range of verbal categories typical of IVs in non-Pama-Nyungan languages. In Bunuba things have not progressed quite this far, and of the ten IVs four can still occur in SVCs, and themselves refer to events; the other six can occur only in CVCs.

### 8.2.2 *Major verbal categories: tense, mood, and aspect*

Tense, mood, and aspect are amongst the most important categories marked in IVs in Kimberley languages; and as in Walmajarri and Yawuru, there is usually at least one obligatory slot in the verb structure that takes morphemes marking each type of meaning.

TENSE concerns the time of occurrence of an event relative to the time of speaking – did it occur before the time of speaking (past), at the same time (present), or will it occur at a later time (future)? Sometimes fewer or more than these basic three distinctions are made in a language.

MOOD covers two rather different types of consideration. One has to do with the speaker's evaluation of whether the event actually occurred (realis), or is imagined or hypothetical (subjunctive), or didn't occur (irrealis), and so on. The other considerations concern how the speaker wishes the utterance to be interpreted as an interactive event, whether as a statement (indicative), command (imperative), question (interrogative), wish (optative), etc.

ASPECT relates not so much to the relative time of the event, but to its temporal make-up, more particularly, how the speaker wishes to view it, the perspective they wish to adopt on it. For instance, it might have occurred (or the speaker may wish to present it as having occurred) over a period of time (continuous or durative) or instantaneously (punctual). For instance, the event of someone laughing could be presented as either durative (*he was laughing*) or punctual (*he laughed*), depending on how the speaker wishes to view it.

Various difficulties arise in describing these categories in languages in general, and in Kimberley languages in particular. They can be hard to distinguish from one another – it is not always obvious that a certain morpheme is a tense rather than an aspect or mood marker. Often all three types of meaning are expressed by one and the same morpheme. There are often also complex interactions among the inflections, whereby certain categories are not marked just by a single inflection, but by combinations of inflections. Or some morphemes marking a certain category may go in one place in the verb, others in another place: aspect markers, as we have seen, occur in two places in Walmajarri. In extreme cases, morphemes occurring elsewhere in the clause participate in marking the categories; in many Pama-Nyungan languages (including Walmajarri) some of the categories are marked by the catalyst, and morphemes attached to it. This makes it difficult to describe the categories in a single language, let alone cross-linguistically. We discuss here the three categories in Walmajarri, Yawuru, and Miriwoong, with occasional remarks on other languages.

### 8.2.2.1 *Walmajarri*

The aspectual system of Walmajarri is quite simple. Repetitive aspect, marked by the suffix *-an* in the third position of the formula (8.5), indicates that the event was repeated a number of times, or was made up of component subevents repeated over a stretch of time, as in the case of examples (8.1) and (8.2). Completive aspect, marked by *-ngurra* ~ *-nyirra* (these are dialectal variants), indicates that the event is completed, has finished happening. As expected, it occurs only in the past tense.

Two moods are distinguished, realis and irrealis. Realis mood is used in describing events that have happened or are believed will happen; it is marked by

a suffix  $-\emptyset$  in the fourth position in formula (8.5). Examples (8.1)–(8.4) are all in the realis mood (for simplicity the  $-\emptyset$  suffix was not marked). The first three examples describe events that happened in the past; although the fourth describes an event that has not yet happened, it is in the realis rather than the irrealis because the speaker wishes to indicate that it is certain to occur. Irrealis mood is marked by the fourth position suffix  $-ta \sim -ja \sim -ka \sim -\emptyset$  (the allomorphs are determined by the preceding phoneme). The irrealis is used in describing events that have not happened, that are unrealised, or are not considered to be highly likely to occur. Irrealis has various senses. It can indicate that an event should have happened but didn't, might have happened but didn't, was expected to have happened but didn't, should happen but mightn't (as in (8.10)); it is also used in commands and in negative clauses (as in (8.11)).

- (8.10) *yangka pa-rlipa yan-ta- $\emptyset$*  Walmajarri  
 that CAT-1plEXCSUB go-IRR-NPA  
 'We should go (to that camp).'
- (8.11) *ngajirta ma-rna lapany-ja-rla* Walmajarri  
 not CAT-1sgSUB run-IRR-PA  
 'I didn't run.'

Many Kimberley languages distinguish between realis and irrealis mood, and the irrealis often has a similar range of meanings as the Walmajarri category. In a number of languages it is the mood that must be used in negative clauses. Other languages – including Gooniyandi – are more like English in negating plain past, present, or future tenses; in such languages the negation generally applies to the mood itself, suggesting that the event shouldn't or couldn't have happened.

Walmajarri makes a four-way tense distinction between past, present, future, and customary in realis mood. However, in the irrealis only two tense distinctions are made, past vs non-past: that is, if an event is unrealised, its non-happening is located either in the past or any other time. The tenses are marked by morphemes occurring in the fifth position in (8.5); the main allomorphs are as shown in Table 8.1.

Table 8.1 Walmajarri tense morphemes

<i>Realis</i> ( $-\emptyset$ )		<i>Irrealis</i> ( $-ta$ )	
Past	$-i \sim -a$	Past	$-rla$
Present	$-a$	Non-past	$-\emptyset$
Customary	$-any$		
Future	$-ku \sim -wu$		

Source: Adapted from Hudson (1978: 42).



In realis mood, past locates an event's occurrence in time prior to the speech situation. Present locates the event at the time of speaking: it is happening right now. The present suffix always occurs with the repetitive aspect suffix *-an*. Customary tense designates an event that customarily or habitually occurs, as in *the sun sets in the west*. Future designates an event that hasn't yet happened, but is considered likely to happen – it will occur at a later time. This tense often conveys modal meanings such as desire or intention to perform the action, necessity, and some types of command. The future tense suffix is identical with the widespread dative marker *-ku ~ -wu* (see §7.2); this form is also widespread as a future tense suffix.

In the irrealis, past tense situates the non-happening of the event in past time, whereas non-past places it in any other time. Non-past irrealis is often used in relation to events that might occur in the future; in such cases, irrealis contrasts with realis future tense: the difference of meaning has to do with the speaker's evaluation of the likelihood of the event occurring. It is common for fewer temporal distinctions to be made in the irrealis than in the realis; these may be tense distinctions as in Walmajarri, or aspect distinctions as in some Nyulnyulan languages.

#### 8.2.2.2 Yawuru

Tense and mood are marked by prefixes to the Yawuru IV root, aspect by suffixes. Elsewhere are partial indicators of the distinctions: for instance, pronoun prefixes sometimes show differences according to mood. Verbs with a  $\emptyset$ - tense prefix – that is, which are neither future nor irrealis (see later) – must be marked as either perfective *-nda* (PF) or imperfective *-rn* (IMP). (We ignore the complex allomorphy.) The semantic contrast between the two aspects is as shown in Table 8.2.

Three prefixes in the third position in (8.6) mark tense and/or mood: future *ga-*, non-future (realis)  $\emptyset$ -, and irrealis *na- ~ ya-*. (Again there are many complexities in allomorphy that we will not go into here.) Non-future covers the meanings shown in Table 8.2, depending on the simultaneous choice of aspect. Future tense covers a range of senses, many of a modal type: intention to perform the act; exhortatives (i.e. 'let's do it'), commands, permissives, and likely or desirable events that have not yet occurred, but are expected to occur.

Table 8.2 Meaning contrast between imperfective and perfective aspects in Yawuru

<i>Perfective (-nda)</i>	<i>Imperfective (-rn)</i>
Specific event	General, habitual event
Perfective, completed event	Imperfective, durative event
Remote past event, presently relevant, for example, with continuing result or consequences	Recent past event, presently relevant, for example, with continuing result or consequences
Distant or remote past	Recent or immediate past
Counterfactual conditional	Conditional, simple assumption

Source: Hosokawa (1991: 147).

Irrealis in Yawuru is used for possible, though unintended or undesired events in the future; the focus is on undesirability rather than unlikeliness. For example,

- (8.12) *wula-ni*                      *wa-na-ø-bilka-yayu*                      Yawuru  
 water-ERG    3minSUB-TR-IRR-hit-1&2minOBL  
 ‘We might be rained on (and get wet).’ (Literally, ‘Water might hit us.’)

The Yawuru irrealis is unusual for a Nyulnyulan language. All other Nyulnyulan languages have at least one *la-* allomorph; in Western Nyulnyulan languages allomorphs also include *li-* ~ *lu-* ~ *l-*; the other Eastern Nyulnyulan languages Nyikina and Warrwa have the lateral initial allomorphs alongside *na-* ~ *ya-*. Second, in other Nyulnyulan languages irrealis is (almost) invariably used in negated clauses, as in Walmajarri; this is not so in Yawuru, where realis clauses in the relevant tense are regularly negated. Thus, compare Nyikina (8.13) with Yawuru (8.14):

- (8.13) *marlu*    *wa-la-ni-na*                      Nyikina  
 not            3minSUB-IRR-sit-PA  
 ‘He didn’t sit.’

- (8.14) *marlu*    *i-nga-nda*                      Yawuru  
 not            3minSUB-be-PF  
 ‘He was not there.’

As (8.13) also illustrates, other Nyulnyulan languages also make temporal distinctions in the irrealis. In Western Nyulnyulan languages it is between past irrealis (marked by either a past tense suffix or a perfective aspect suffix), and non-past irrealis (no suffix). Eastern Nyulnyulan languages Nyikina and Warrwa make a three-way distinction in the irrealis between past, present and future: past irrealis involves the past tense suffix *-na*, which is absent in the present irrealis; future irrealis also lacks this suffix, but selects *na-* ~ *ya-* irrealis allomorphs, rather than the *la-* allomorph of the past and present. Finally, whereas the Yawuru irrealis is virtually restricted to future time (the only exceptions being *la-* forms borrowed from Nyikina), in other languages the irrealis has a wide range of meanings, including ‘might have happened, but didn’t’, ‘almost happened’, ‘unsuccessfully attempted’, ‘should have happened’, and so forth.

### 8.2.2.3 *Miriwoong*

In Jarrakan languages, root suppletion is rife to the extent that it is not usually possible to separate IV roots from tense markers in the modern languages; it is necessary to set up three tense forms for each IV. (The suppletive roots can, however, be accounted for as the historical relics of sequences of root and tense morphemes.) Table 8.3 shows the main forms (omitting some complexities) for a selection of

Table 8.3 Forms of some Miriwoong IVs

	<i>Past</i>	<i>Present</i>	<i>Future</i>
'sit'	-ni-	-n-	-in-
'go'	-ni- ~ -ndi- ~ -ri-	-r- ~ -d- ~ -nd-	-a-
'fall'	-ward-	-win-	-wi-
'get'	-mang	-min	-ng
'hit'	-id	-in	-ij

Source: From Kofod (1978: 175, 214).

Miriwoong IVs. The moods and aspects are straightforwardly formed by affixes. The moods are realis, irrealis, negative, and potential (indicating possibility as well as commands, wishes, etc.); unusually, it is the irrealis, rather than realis, that is marked by a zero form. Negatives normally occur in the irrealis, less commonly in the negative mood. We do not discuss the meanings and uses of the categories further here.

#### 8.2.2.4 Other tense, mood, and aspect categories

The tense, mood, and aspect categories we have discussed are fairly basic ones that can be found in many languages. A wide range of other distinctions are made in the occasional language that are not especially widespread. For instance, Jaru has in addition to the plain past tense a past narrative tense (formed by the suffix *-nyurra* ~ *-ngurra* attached to the ordinary past tense suffix); this is used in narrating or reporting past events that the hearer did not participate in, and did not witness. Jaru also has distinct imperative (used in commands, orders, requests, etc.) and hortative (giving permission to a third person to do something, as in *let him have some water*). (In many Kimberley languages these meanings are covered by the future tense.) Bardi has in addition to prefixes distinguishing past, present, and future tenses, five tense suffixes: *-n* ~ *-ny* (present); *-a* (future); *-gal* ~ *-galj* (immediate past); *-ij* (recent or middle past); and *-na* (distant past). These combine with various tense prefixes and aspect suffixes to permit finer temporal distinctions.

#### 8.2.3 Conjugation classes

Conjugation classes for IVs are like noun classes for nouns: IVs are assigned to different classes according to the different grammatical patterns they exhibit. For IVs, however, these patterns concern the different allomorphs of the inflections, rather than different agreement morphemes, that is, the classes are marked on the words themselves, and not on their dependents. In most languages one also finds a small set of irregular IVs that do not fit into the regular conjugation classes, and take one or more unique inflectional allomorphs, or allomorphs from two or more classes.

8.2.3.1 *Pama-Nyungan languages of the Kimberley*

Most Pama-Nyungan languages of the Kimberley region distinguish between four and six conjugation classes. Usually it is possible to identify a marker for the conjugation class immediately following the IV root that remains relatively constant across the inflections; the conjugations are labelled according to this form. This is the case in Walmajarri, as shown in (8.5). Walmajarri has five conjugation classes, and it is quite easy to separate the conjugation marker from the following inflections, which show little allomorphic variation. Table 8.4 shows of the five conjugation markers, along with the formal variants that depend on the immediately following inflection. (The present tense affix is not shown because it always follows the repetitive.)

There are just a few irregularities. In the *ng* conjugation the three IVs ending in *u* change the vowel to *i* before the past tense suffix; and *nya-ng* ‘see’ can optionally drop the conjugation marker before *k*-initial inflections.

Membership of the conjugation classes in Walmajarri is not entirely random; there are strong associations between classes and transitivity, revealed in the following outline of their contents. Figure 8.1 displays the relative sizes and transitivity associations for each class graphically, to scale.

*ng* conjugation: Six members, four of which are transitive: *ka-ng* ‘carry’, *nya-ng* ‘see’, *pu-ng* ‘hit’, and *waa-ng* ‘follow’. One, *yu-ng* ‘give’, is ditransitive (i.e. takes two objects, the gift and the recipient), and one, *lu-ng* ‘cry’, is either intransitive or middle (see §10.3.2 for explanation).

*l* conjugation: Two members, both transitive: *ma-l-* ‘speak’, and *nga-l* ‘eat’.

*n* conjugation: Three members, two transitive – *la-n* ‘pierce, spear’, and *ma-n* ‘do’; one intransitive – *ya-n* ‘go’.

*rr* conjugation: Nine members, all transitive; examples include *paja-rr* ‘bite’, *ngaja-rr* ‘excrete’, and *wanyja-rr* ‘leave’.

∅ conjugation: 25 members, 22 of which are transitive. Transitive members include *luwa-∅* ‘throw’, *karla-∅* ‘dig’, *mapa-∅* ‘paint, rub’; intransitive members include *wanti-∅* ‘fall’ and *karri-∅* ‘stand’.

Table 8.4 Walmajarri conjugation classes

	<i>ng</i>	<i>l</i>	<i>n</i>	<i>rr</i>	∅
Repetitive	<i>-ng-an</i>	<i>-rn-an</i>	<i>-n-an</i>	<i>-n-an</i>	<i>-rn-∅ ~ -ny-∅</i>
Past	<i>-ny-a</i>	<i>-rn-i</i>	<i>-n-i</i>	<i>-n-i</i>	<i>-rn-i ~ -ny-i</i>
Future	<i>-ng-ku</i>	<i>-l-ku</i>	<i>-n-ku</i>	<i>-rr-ku</i>	<i>∅-wu</i>
Customary	<i>-ng-any</i>	<i>-l-any</i>	<i>-n-any</i>	<i>-rral-any</i>	<i>-l-any</i>
Irrealis	<i>-ng-ka</i>	<i>-ny-ja</i>	<i>-n-ta</i>	<i>-rr-a</i>	<i>-∅-∅</i>

Source: Adapted from Hudson (1978: 38).

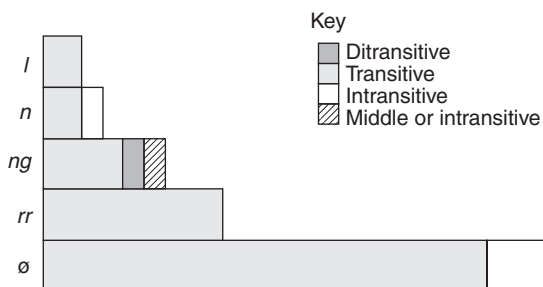


Figure 8.1 Constitution of Walmajarri conjugation classes.

Table 8.5 Yulparija conjugation classes and their markers

	$\emptyset$	<i>wa(ng)</i>	<i>la(l)</i>	<i>rra(n)</i>
past	<i>-ngu</i>	<i>-ngu</i>	<i>-nu ~ -rnu</i>	<i>-nu</i>
present	<i>-nyi(n) ~ -yin</i>	<i>-nganyin ~ -ngayin</i>	<i>-nin</i>	<i>-nanyin</i>
future	<i>-nya</i>	<i>-nganya ~ -nanya</i>	<i>-npa</i>	<i>-nanya</i>
irrealis	$\emptyset$	<i>-ngku ~ -ku</i>	<i>-lku ~ -ku ~ -l</i>	<i>nku</i>
imperative	$\emptyset$	<i>-wa</i>	<i>-la</i>	<i>-rra</i>

Source: From Burridge (1996: 35, 37).

Correlations between conjugation classes and transitivity are common in Pama-Nyungan languages, though they are not always as strong as in Walmajarri. Also recurrent is the characteristic that verbs tend not to be distributed evenly across conjugation classes; usually one or two classes have significantly more members than the others. The  $\emptyset$  class in Walmajarri, for instance, has more members than all of the others put together.

The Western Desert varieties, which have the largest sets of IVs, all distinguish four conjugation classes, generally labelled after the imperative form:  $\emptyset$ , *wa*, *la*, and *rra*. These correspond, respectively, to the Walmajarri  $\emptyset$ , *ng*, *l*, and *n* conjugations. Table 8.5 shows some of the inflectional forms for Yulparija. There is at least one irregular IV, *nga-* ‘eat’.

The conjugation markers (shown in brackets in the table) are less easily segmented in Yulparija than in Walmajarri. However, it seems fairly clear that most of the inflections derive historically from a conjugation marker followed by a tense or mood inflection, with some phonological changes.

The *la* class is open, and consists mainly of transitive IVs, for example, *jalka-la* ‘send’, *jiki-la* ‘drink’, *kuli-la* ‘hear’, *ngalu-la* ‘hold’, *tili-la* ‘light’, and *wani-la* ‘break’. Of about thirty *la* class IVs listed in Burridge (1996: 34–5), only about a sixth are intransitive, including *tati-la* ‘climb up’, *paka-la* ‘get up’, and *punka-la*

'fall'. The  $\emptyset$  class, also with a fair number of members, contains primarily intransitive IVs; such as *pirta- $\emptyset$*  'run', *ngalpa- $\emptyset$*  'enter', *ngara- $\emptyset$*  'stand', and *nyina- $\emptyset$*  'sit, be'. The other two classes are probably closed. The *wa* class, with half a dozen known members, contains mostly transitive IVs, for example, *ka-wa* 'carry', *nya-wa* 'see', *pu-wa* 'hit', and *yu-wa* 'give'; just one intransitive member is known, *rri-wa* 'become'. The *rr* class has three known members: two transitive, *ju-rra* 'put' and *ma-rra* 'carry'; and one intransitive *ya-rra* 'go'.

Warlpiri, with just over a hundred IVs, has five conjugation classes: a *y* class with around forty members, mostly intransitive; an *rr* class of around fifty IVs, mostly intransitive; and three small classes, *ng*, *n*, and *l*, each with just a handful of members.

### 8.2.3.2 Kimberley non-Pama-Nyungan languages

Conjugation classes are also found in non-Pama-Nyungan languages. They do not, however, show many resemblances to Pama-Nyungan conjugations. The two families with the largest sets of IVs – Nyulnyulan and Worrorran – both have conjugation classes. For Jarrakan and Bunuban languages, it is not particularly useful to recognise conjugation classes, there being few IVs and little commonality in their patterns of inflection – almost as many conjugation classes as IVs would need to be set up.

Most Nyulnyulan languages distinguish two primary conjugation classes, an *na* class and a  $\emptyset$  class. The former is characterised by a conjugation marker (often *na*) that occurs between the pronominal prefix and the IV stem, usually in the same relative position as in Yawuru (see (8.6)); the latter generally shows a  $\emptyset$  in the same position. However the conjugation markers show some variation in form; for example, in Bardi the *na* marker usually shows up as *n*, and *ng* appears in various places in the  $\emptyset$  conjugation.

Table 8.6 shows the paradigm of prefixes in Yawuru up to and including the conjugation markers (shown in bold). It will be seen that the *na* conjugation is characterised by a prefix *na-* in the minimal numbers (i.e. following vowels), while there is a prefix *a-* in the augmented numbers (i.e. following *rr*). This prefix does not occur in the  $\emptyset$  class, which falls into two subclasses that are only slightly different from one another:  $\emptyset_1$  has second person minimal future form *wal-* whereas  $\emptyset_2$  has *nga-*. About three-quarters of Yawuru's eighty or so IVs inflect regularly according to one of these three patterns.

In all Nyulnyulan languages there is a strong correlation between the two major conjugation classes and transitivity. In Nyulnyul almost 97 per cent of the  $\emptyset$  class IVs are intransitive, and about the same percentage of the *na-* class are transitive. In Yawuru, the association between the *na* class and transitive is perhaps even stronger, although for the  $\emptyset$  class the association with intransitives is lower (about 70 per cent). For this reason *na* is glossed in examples as TR.

An interesting feature of Nyulnyulan languages is that a set of about twenty IVs belong to both conjugation classes: they take inflections from both of the main

Table 8.6 Yawuru conjugation classes

	<i>na</i>	$\emptyset_1$	$\emptyset_2$
<i>Non-future</i>			
1min	<i>nga-na-</i>	<i>nga-ny-</i>	<i>nga-ny-</i>
1aug	<i>yanga-rr-a-</i>	<i>yanga-rry-</i>	<i>yanga-rry-</i>
1 & 2min	<i>ya-na-</i>	<i>ya-ny-</i>	<i>ya-ny-</i>
1 & 2aug	<i>yaka-rr-a-</i>	<i>yaka-rry-</i>	<i>yaka-rry-</i>
2min	<i>mi-na-</i>	<i>mi-ny-</i>	<i>mi-ny-</i>
2aug	<i>ku-rr-a-</i>	<i>ku-rry-</i>	<i>ku-rry-</i>
3min	<i>i-na-</i>	<i>i-ny-</i>	<i>i-ny-</i>
3aug	<i>inga-rr-a-</i>	<i>inga-rry-</i>	<i>inga-rry-</i>
<i>Future</i>			
1min	<i>nga-na-(ng-)-ka-</i>	<i>nga-ng-ka-</i>	<i>nga-ng-ka-</i>
1aug	<i>yang-ka-rr-a-</i>	<i>yang-ka-rry-</i>	<i>yang-ka-rry-</i>
1 & 2min	<i>ya-na-(ng-)-ka-</i>	<i>ya-(ng-)-ka-</i>	<i>ya-(ng-)-ka-</i>
1 & 2aug	<i>ya-ka-rr-a-</i>	<i>ya-ka-rry-</i>	<i>ya-ka-rry-</i>
2min	<i>wal-a-</i>	<i>wal-</i>	<i>nga-</i>
2aug	<i>wa-rr-a-</i>	<i>wa-rr-</i>	<i>wa-rr-</i>
3min	<i>wa-na-(ng-)-ka-</i>	<i>wa-(ng-)-ka-</i>	<i>wa-(ng-)-ka-</i>
3aug	<i>wang-ka-rr-a-</i>	<i>wang-ka-rry-</i>	<i>wang-ka-rry-</i>
<i>Irrealis</i>			
1min	<i>nga-na- ~ nga-ya-</i>	<i>nga-ya-</i>	<i>nga-ya-</i>
1aug	<i>yaa-rr-a-</i>	<i>yaa-rry-</i>	<i>yaa-rry-</i>
1 & 2min	<i>ya-na- ~ yaa-</i>	<i>yaa-</i>	<i>yaa-</i>
1 & 2aug	<i>yaa-rr-a- ~ yaka-rr-a-</i>	<i>yaa-rry- ~ yaka-rry-</i>	<i>yaa-rry- ~ yaka-rry-</i>
2min	<i>mi-na- ~ mi-ya-</i>	<i>mi-ya-</i>	<i>mi-ya-</i>
2aug	<i>ku-ya-rr-a-</i>	<i>ku-ya-rry-</i>	<i>ku-ya-rry-</i>
3min	<i>wa-na- ~ wa-ya-</i>	<i>wa-ya-</i>	<i>wa-ya-</i>
3aug	<i>wa-y-rr-a-</i>	<i>wa-y-rry-</i>	<i>wa-y-rry-</i>

Source: Adapted from Hosokawa (1991: 154–6).

prefix sets. The different conjugations of an IV always have different meanings. Almost always the IV is intransitive in the  $\emptyset$  class, transitive in the *na* class. This is illustrated by the following small selection of Nyulnyul pairs shown in Table 8.7.

As for Worrorran languages, little detailed information is available on conjugation classes, and it is not certain whether they are distinguished in all languages. One language in which they are distinguished is Ngarinyin, the quite substantial set of IVs of which belong to seven conjugation classes, defined in terms of the choice of tense-mood suffix allomorphs for the present and past indicative, and past irrealis. No conjugation marker is apparent. It is not clear to what extent the classes correlate with transitivity or any other semantic feature.

### 8.2.4 Derivational processes

Given the small number of IVs in Kimberley languages, it is not surprising that there are few morphological processes by which new IV stems are derived from

Table 8.7 A selection of Nyulnyul IVs belonging to both conjugation classes

	<i>Intransitive (ø)</i>	<i>Transitive (na)</i>
-BULM	'soak'	'soak something'
-BANY	'get/become finished'	'finish something up'
-BUNJ	'smell, stink'	'smell something'
-KANM	'laugh'	'laugh someone to scorn'
-KARRMARR	'be broken'	'break something'
-KUL	'wear (clothes)'	'dress someone'
-MARR	'cook, burn'	'cook, burn something'
-MUND	'get saturated'	'saturate something'
-MUUR	'spill out, come out'	'pour (liquid) out'
-NGANK	'speak'	'tell, ask someone something'
-RALK	'dry out'	'put out to dry'

IV roots, or roots of other classes. No language has productive means of deriving IVs from words of other parts-of-speech, although occasionally one finds IVs that show striking resemblance – even identity – in form and meaning with words of other parts-of-speech. For instance, in many Nyulnyulan languages the root *ngank* can belong to three parts-of-speech, with expected meaning differences: as a nominal it means 'word, language'; as a UV it means usually means 'speak'; and as an IV it usually means 'speak, talk to, tell'. But such words are rare.

Nyulnyulan languages permit the most IV derivation. There are two main processes, neither entirely productive: reduplication and reflexive-reciprocal derivation.

All Nyulnyulan languages, even those with less than a hundred IVs, permit IV reduplication. In Yawuru around a third of the IV roots can be reduplicated; they are almost exclusively more than one syllable in length. Reduplication can be either total, that is, of the entire root, as in the case of the reduplication of -BARU 'blow (of wind)' to -BARU-BARU 'keep blowing (of wind)' and -LURRA 'burn, cook' to -LURRA-LURRA 'burn, cook for a long time', or partial, as in the reduplicated form -NGURLI-NGURLIKA 'wait for a long time' from 'wait' and -JAL-JALA 'take care of children' from -JALA 'care'. The reduplicated IV stem almost always retains the conjugation class and transitivity of the root.

Reduplication of an IV root conveys meanings of the following types: durative, as in -GILBI-GILBIRA 'keep singing' (-GILBIRA 'sing') and -JALA-JALAKU 'spring up all the time (of water)' (-JALA 'spring up (of water)'); iterative or repetitive, as in -JUMA-JUMA 'turn meat over repeatedly on fire to cook well' (-JUMA 'singe') and -BULI-BULI 'bathe' (-BULI 'moisten'); collectivity, involving many subjects or objects acting together, as in -BANJI-BANJI 'exchange amongst a large group' (-BANJI 'exchange') and -MAKU-MAKURA 'manufacture many (artefacts)' (-MAKURA 'make'); intensification, as in -BANYJU-BANYJU 'be stinky, smell badly' (-BANYJU 'smell'); and, rarely, attenuation (or softening), as in -BILKA-BILKA 'pat', from -BILKA 'hit' (this



reduplication can also mean ‘belt’). Occasionally, the semantic effect is idiosyncratic, as in -BALI-BALI ‘think over, contemplate’ (-BALI ‘cut’), -BUKA-BUKARRI ‘think about, be concerned’ (-BUKARRI ‘dream’); in such cases it could be argued that the reduplicated form is a separate stem, and that the reduplicated formative should be distinguished from the homophonous IV root.

The reflexive-reciprocal in most Nyulnyulan languages is formed by a prefix and a suffix, that usually co-occur, though sometimes the prefix is omitted, often without an apparent change in meaning. The reflexive-reciprocal can be regarded as a derivational morpheme. This is for two reasons. First, the reflexive-reciprocal stem is invariably assigned to the  $\emptyset$  (predominantly intransitive) conjugation class, indicating that the form is inflected as a whole.<sup>4</sup> Second, often a small number of IVs invariably occur with reflexive-reciprocal affixes – examples are -RI ‘quarrel’ in Nyikina; -ILBIR ‘echo’ and -KUDAL ‘disappear, lose oneself’ in Bardi; and -RR ‘fight’ in Nyulnyul. This would be strange if the reflexive-reciprocal were an inflection.

Other languages admit little IV derivation. The Ngarinyin reflexive-reciprocal suffix – which occurs adjacent to the IV root – is perhaps a derivational morpheme. Jaru has two derivational morphemes -*an* and -*ang* ~ -*an* that derive stems that form the base for continuative inflections; their derivational function is entirely grammatical.

### 8.3 Compound verb constructions

#### 8.3.1 Basic structure of compound verb constructions

A compound verb construction (CVC) typically consists of two vocabulary items, an IV and, usually, a UV. Less frequently, though not uncommonly, words of other parts-of-speech – especially nouns and adverbs, but sometimes interjections and particles – occur instead of UVs. Such words normally occur in their plain root form. The entire CVC denotes a single event. The role of the IV is primarily grammatical; the UV provides the lexical specification of the event.

As mentioned already, all verbal inflections go on IVs; UVs (and other words occurring in their place) never admit inflections. In most languages UVs normally occur in their plain root form; a restricted set of bound morphemes are permitted on them. These usually include a few derivational morphemes marking aspect, and some enclitics, typically with temporal meanings.

In all Kimberley languages the UV normally immediately precedes the IV, though in most languages the reverse order is permissible, but less common. Thus, in Yawuru, the UV only rarely follows the IV, and when it does, it is preceded by a pause, as in (8.15).

- (8.15) *wamba i-mirdibi-rn/ jun.gu* Yawuru  
 man 3sgSUB-run:away-IMP run  
 ‘Running, a man goes.’

By contrast, in nearby Daly River languages, including Murrinh-Patha, the UV usually follows the IV.

The UV and IV are almost always adjacent; only rarely are they separated by other words. Again Yawuru permits a word to intervene between the UV and IV, as in (8.16) and (8.17). There are, however, a number of restrictions. A definite intransitive subject can intervene between the UV and following IV, as in example (8.17); but an indefinite subject or a transitive object cannot. Moreover, just one word can intervene between the UV and IV – if the subject has more than one word, it must be discontinuous, as in (8.18).

- (8.16) *i-mirdibi-rn*                      *wamba/ jun.gu*                      Yawuru  
 3sgSUB-run:away-IMP    man                      run  
 ‘Running, a/the man goes.’

- (8.17) *jun.gu wamba i-mirdibi-rn*                      Yawuru  
 run                      man                      3sgSUB-run:away-IMP  
 ‘The man is running.’

- (8.18) *wanggurr-gaja jalykurr i-nga-nda gamba*                      Yawuru  
 cry-INTENS                      baby                      3sgSUB-be-PF                      that  
 ‘The baby cried.’

In many languages the UV and IV are quite tightly connected. In fact, phonological changes can occur across the boundary between them. This is the case in Bunuban languages, where an initial *b* or *g* of an IV will weaken to *w*, and an initial *j* will weaken to a *y*, when the UV ends in a vowel. For example, compare the first person inclusive forms of Bunuba -MA ‘say, do’ in (8.19) and (8.20). The initial *j* remains unchanged when the previous vowel-final word does not belong to the CVC; but when it does belong to the CVC it weakens to *y*. Such processes are otherwise rare between words, suggesting that the CVC is in some sense a single word (as also reflected in the written form).

- (8.19) *girrgara'yarr-m-iy*                      Bunuba  
 run' 1plINCSUB-say/do-PA  
 ‘We all ran.’

- (8.20) *ngaanyi jarr-m-iy*                      Bunuba  
 what                      1plINCSUB-say/do-PA  
 ‘What did we all say?’

In most languages only a dozen or so IVs can occur in CVCs. This holds even for languages with large sets of IVs. Perhaps surprisingly, it is the languages with small sets of IVs that generally allow the most IVs in CVCs. Thus, in Jarakan languages each of the twenty-odd IVs occurs in CVCs; the same goes for the

approximately thirty Jaminjung IVs. But in Ngarinyin, which has some hundreds of IVs, only fourteen can occur in CVCs.

IVs that occur in CVCs include most of the 'basic' and frequent verbs 'say, do', 'sit, be', 'stand', 'become', 'fall', 'go', 'carry', 'take', 'hit', 'catch, get', 'put', 'give', 'throw', and 'spear'. CVCs can be likened to English constructions like *take a break*, *take a bath*, *give cheek*, *play games*, *drop dead*, *fall short*, *have a sleep*, and so on. Clear illustration is provided by the Nyulnyul CVC *dudud...-W* (knock...-give) 'knock (e.g. on a door)', which can be more literally translated as *give a knock*.

IVs can usually occur in SVCs. Exceptions exist, however. In a few languages there are one or two IVs that are restricted to CVCs. Ngarinyin has just two such IVs (i.e. less than 1 per cent of the IVs); on the other hand, in Walmajarri there are four, making up nearly 10 per cent of the IVs. The highest fraction of IVs restricted to CVCs is found in Bunuban languages. In Bunuba eight of the ten IVs occur only in CVCs; the other two can occur in SVCs, though only -MA 'say, do' commonly does so.<sup>5</sup> And in Gooniyandi no IV can occur in an SVC: as already mentioned, in this language you can never utter the inflecting element as an independent word.

In all Kimberley languages there are strong restrictions on permissible combinations of UVs and IVs. Usually, a UV occurs with a single IV; a number of UVs occur with more, though fewer UVs occur with two, three, four, and so on, IVs. It is rare for a UV to occur with more than half a dozen different IVs. In Nyulnyul nearly 80 per cent of UVs occur with a single IV; 14 per cent occur with two; 5 per cent with three; 2 per cent with four; and 1 per cent with five. Just one UV is attested with more than five IVs. If a word of another part-of-speech occurs in a CVC, the possible IVs it can combine with are also restricted. We discuss the basis for UV-IV combinations in §8.3.3.

### 8.3.2 *Uninflecting verbs*

In all Kimberley languages, UVs form a large open class of several hundred words. Verbs borrowed from English are always assigned to the UV part-of-speech, and invariably occur in CVCs.<sup>6</sup> It is difficult to find defining criteria for UVs as a part-of-speech because words from other parts-of-speech also occur in CVCs and UVs occur in other environments that are characteristic of other parts-of-speech. Nevertheless, the class of UVs as a whole show distinctive statistical patterns phonologically, morphologically, and syntactically.

Phonologically, UVs have two distinctive characteristics. First, they tend to be shorter than words of other parts-of-speech – they tend to have fewer syllables. Monosyllables are rare in words other than UVs; even Nyulnyul, which has an extraordinarily large number of monosyllabic words for an Australian language (30 per cent in all), twice as many are UVs as any other part-of-speech. The proportions are even more striking in many other languages.

Second, in most languages final consonants are rare except in UVs. In Warrwa, over half of the UVs end in consonants, whereas only a quarter of words from

other parts-of-speech do. In Gooniyandi 80 per cent of UVs end in consonants, as against just 3 per cent for words of other parts-of-speech.

UVs, as has been mentioned a number of times already, allow few morphological modifications; in particular, they never admit inflections. In this respect they are like nominals, most adverbs, particles, interjections, and ideophones. UVs are sometimes found with case-marking postpositions, though in any language only some postpositions occur in this environment. (8.21) and (8.22) are illustrative examples.

- (8.21) *manyan-tu nga-yi bayan-a* Jaru  
 sleep-ERG CAT-1sgOBJ bite-CONT/PRES  
 ‘Sleep is biting me.’ (i.e. ‘I am tired.’)
- (8.22) *wug-u ngangga wind-a-gi malngarri-ngga* Bunuba  
 cook-DAT give 3plOBJ/3sgSUB-YHA-pl white:person-ERG  
 ‘The white fellow gave it to them for cooking.’

The most common morphological modification of UVs is derivation. In many languages nominal derivational suffixes can be added to UVs to form nouns; agentive suffixes are amongst the most common, as in Nyulnyul *junk-id* (run-AG) ‘runner’, and *wungkur-id* (grind-AG) ‘grinder, grinding stone’.

There are also derivational suffixes that derive UV stems. The most frequent are aspect markers, usually indicating continuous or iterated events. Most Nyulnyulan languages have a continuous suffix; in Nyulnyul it is *-kaj*, as in *lakal-kaj* (climb-CONT) ‘be climbing’, *bilbil-kaj* (twinkle-CONT) ‘be twinkling’, *jadjad-kaj* (chop-CONT) ‘be chopping’, etc. Ngarinyin has two such aspect suffixes. One is the iterative suffix *-wa ~ -ba* as in *ingarr-ba* (pick:up-IT) ‘pick up one by one’ and *ngoyj-ba* (breathe-IT) ‘take breaths’. The other is the punctual *-wini ~ -bini*, illustrated by *ngurr-wini* (hit-PUNC) ‘hit a sudden blow’ and *wurrayj-bini* (dump-PUNC) ‘dump suddenly’. Jarrakan languages are particularly rich in morphemes of this type. Kija aspect derivational suffixes include continuous present *-pu*, iterative *-ji*, collective *-merrarriny* (e.g. *puwup-merrarriny* (float-collective) ‘float together (of e.g. flowers)’; continuously, for a long time *-kayan*, and causative *-ke* (e.g. *ngartawu-ke* (cry-CAUS) ‘make someone cry’, *karlkarl-ke* (laugh-CAUS) ‘make someone laugh’).

The most widespread means of deriving new UV stems is by reduplication; this is found in every Kimberley language. Usually, as for IVs, reduplication conveys iterative, durative, or continuous meanings, as illustrated in the Kija examples *pet-pet* ‘keep on peeping’ (*pet* ‘peep’) and *pawu-wawu* ‘keep on calling out’ (*pawu* ‘call out’). Yawuru also has examples in which intensification is involved: *wirr-wirr* ‘scrape quickly’ (*wirr* ‘scrape’), *jagurl-jagurl* ‘coil self up tightly (e.g. snake)’ (*jagurl* ‘form circle’). Reduplication of UVs is common in many languages both in terms of the UVs that permit it, and frequency of use in speech.

UVs occasionally have different forms according to the number of the subject. In Kija, for instance, a few UVs have one form when the number of the subject is three or fewer, another when it is more than three: *rurt* ‘sit (of three or less people)’ and *rurrjip* ‘sit (more than three people)’, *pertij* ‘climb (of one to three people)’ and *pawart* ‘climb (of more than three people)’. Neighbouring Gooniyandi has a small number of UVs that can be used only when the subject is more than about three or so; but all of these are matched by UVs that are non-specific for number, for example, *baward-* ‘climb up (of a reasonable number)’ vs *bar-* ‘climb up (any number)’ and *balbirr-* ‘return (of a reasonable number)’ vs *barn-* ‘return (any number)’.

UVs are quite restricted in terms of their syntactic behaviour. They are almost always found in combination with IVs in CVCs. The main exception is in contexts such as (8.21) and (8.22), where the UV is followed by a postposition, and presumably occurs in an IV-less clause serving a grammatical role in an ordinary clause with an IV. Another circumstance in which UVs are sometimes found without IVs is in imperatives. This happens in Gunin/Kwini, Wunambal, Ngarinyman, Jaminjung, and many other languages – some examples from Wunambal are *minyjal* ‘eat!’, *ngurd* ‘hit!’ and *joo* ‘drink!’. And in Gooniyandi, Yawuru, Jaminjung and various other (though not all) languages, UVs are used without IVs for stylistic effect, to add vividness or immediacy to the utterance, as illustrated by the following Jaminjung example:

- (8.23) *jungulug-di-biya kroba dud gan-angga-m* Jaminjung  
 one-ERG-now crowbar hold:one 3sgSUB/3sgOBJ-get-PRES  
*!deb:!*... *thanthiya-gurna ngayiny/ malajagu/*  
 knock! that-? meat goanna  
 ‘One then picks up a crowbar (and) !knock!... that animal, the goanna.’

It has been mentioned already that words of other parts-of-speech can also occur in the position of UVs in CVCs. Only rarely are such words morphologically marked. In Kija a noun or adjective loses its gender suffix when it occurs in a CVC. The noun *jirekel* ‘bird’ occurs as *jireke* when used in a CVC referring to a process of becoming a bird, as in (8.24). In a CVC referring to a caused change, the noun or adjective takes the causative suffix *-k*, as in (8.25).

- (8.24) *jireke ngini-wamany-ji* Kija  
 bird 3sgSUB/3sgMASC OBJ-go:after/PA-3sgMASC SUB  
 ‘He turned into a bird.’

- (8.25) *kurninya-k kemperre-men-pe ta-m* Kija  
 hungry-CAUS 3plSUB/1sgOBJ-get/PRES-3plSUB that-MASC  
*ngartpu-karre purru-rt-pu miyal-e*  
 smell-REL 3plSUB-go/PRES-3plSUB meat-N/P  
 ‘That smell coming from the meat is making me hungry.’

In some Pama-Nyungan languages the infinitival form of an IV (see §8.5.2) can occur in the UV position in a CVC. This is possible in Walmajarri, Jaru, and Warlpiri. In Walmajarri an infinitival IV can only occur with the bound IV *-kuji* ‘cause’, as in (8.26):

- (8.26) *lung-u-kuji-rn-i pa-ø-lu yapa-warnti-rlu* Walmajarri  
 cry-INF-cause-ø-PA CAT-3sgOBJ-3plSUB child-pl-ERG  
 ‘The children made him cry.’

Summing up, even though UVs do not normally show any grammatical peculiarities that are absolutely restricted to them, as a group they show recurrent patterns of form and use. In almost every grammatical respect they are the converses of IVs: they are free, not bound; they are morphologically simple, not complex; they are non-inflecting, not inflecting; and they form an open rather than a closed class. In most (though not all) languages UVs in CVCs are much more common in use than IVs in SVCs. Only rarely does a word belong to both classes.

### 8.3.3 *Semantics of compound verb constructions*

The reader might be tempted to think of IVs in CVCs as auxiliary verbs, that is, as English verbs like *be*, *have*, *will*, *can*, and so on that occur in combinations with other verbs. Although this is not entirely wrong, it is misleading in two important respects. First, auxiliary verbs of Indo-European languages like English, French, German, and Spanish are used in the formation of tense, mood, aspect, and voice categories, for example, *I will go tomorrow*, *You have drunk all the beer*, *He was beaten badly*. In Kimberley languages, by contrast, such categories are generally marked by affixes to IVs, occasionally to UVs. Second, these Indo-European languages show few restrictions on combinations of auxiliary verbs with other verbs, whereas in Kimberley languages there are strong restrictions on the combinations of UVs and IVs – recall that a UV usually occurs with a single IV, rarely with more than two or three, and never all of them.

So what do IVs do in CVCs? The answer is that they serve as classifiers: they indicate the type of event referred to. They divide up the universe of events into a relatively small number of types or categories, usually between ten and twenty;<sup>7</sup> the IV indicates which category the event belongs to. This is a language-based system, grounded on characteristics of the event. It is not a taxonomic classification like the Linnean classification of animal and plant species in which every species has a unique place that can be determined by scientific investigation of its characteristics. In verb classification systems the defining characteristics of the categories are not mutually exclusive, and an event may satisfy the specifications of more than one category. Furthermore, whereas the Linnean system was devised for scientific reasons, to categorise living things and to show how they are related, systems of verb classification are there not simply to represent a categorisation of events, but rather to facilitate event reference. Their function is comparable to that

of certain reference modifiers in the Gooniyandi NP (§7.6.1) and, in a way, of noun classification systems (§7.4). The way an event is ‘constructed’ by a CVC is lexically by a UV that specifies it to a certain degree of precision; this specification is then rendered more precise by the IV, which narrows down to a smaller range of events. Because the UV and IV work together in this way – and because of the restrictions on combinations of UVs and IVs – it is reasonable to speak of the IV as not just an event classifier, but also as a classifier of UVs. The IVs serve on the one hand to divide events into categories, and on the other, to divide the UVs into categories. The former are effectively disjoint, semantically specified, categories; the latter are overlapping categories defined by the potential to combine with particular IVs.

These observations can be illustrated by examining the contrasts between alternative classifications of single UVs. Consider, for example, the Ngarinyin UV *ada* ‘sit’, which occurs with at least six different IVs:<sup>8</sup>

(8.27) <i>ada</i> ‘sit’	intransitive	<ul style="list-style-type: none"> <li>-YI (‘be, become’) ‘be sitting’</li> <li>-WA (‘fall’) ‘sit down’</li> <li>-MA (‘say, do’) ‘take a sitting position’</li> </ul>	Ngarinyin
	transitive	<ul style="list-style-type: none"> <li>-WU (‘act on’) ‘sit on’</li> <li>-YILA (‘hold’) ‘sit with’</li> <li>-MINJALA (‘wait for’) ‘sit among/with’</li> </ul>	

The UV *ada* ‘sit’ itself covers a wide range of events relating to the maintenance and adoption of a sitting position. By indicating its category – whether it is an intransitive state, intransitive motion event, and so forth – the event that the speaker wishes to refer to can be more precisely delineated.

### 8.3.3.1 Verb classification in Gooniyandi

To show more clearly how verb classifying systems categorise events, let us look at Gooniyandi, which has a dozen bound inflecting elements that derive historically from IVs, but that can no longer occur independently to specify events. They have become event classifiers: their sole function is to indicate the category of the event. The system by which events are categorised is shown in Table 8.8.

The categories are arranged into seven groups, according to two general feature types. The three categories in the first column contrast with the nine in the second column in terms of an aspect-like feature, whether the event is (a) an *EXTENDIBLE*, that is, can in principle continue for an indefinite period of time; or (b) an *ACCOMPLISHMENT*, that is, has a particular point at which it is effected, a natural point before which it has not yet occurred. States such as sitting, standing, and lying are extendible events; they have no particular point of accomplishment, and are potentially extendible for an indefinite period of time. They simply cease,

Table 8.8 System of Gooniyandi verb categorisation

	<i>Extendible</i>	<i>Accomplishment</i>
Reflexive-reciprocal	+ARNI <sub>2</sub> 'extend-self' [self-directed]	+MARNI 'effect-self' [self-directed]
Intransitive	+I 'be, go' [action not directed outwards from actor to impact on something else]	+BINDI 'get, become' [change of position or state with significant build-up accumulating to the point of achievement] +ANI 'fall' [change of position or state with critical beginning, after which accomplishment is a natural consequence]
Transitive or intransitive		+MI 'effect' [activity] +DI 'catch' [juncture/disjuncture of two things, not self-induced, but usually by an external agency in constant contact with the thing] +BINI 'hit' [straight-line, typically instantaneous action from an agent, bringing it in contact with something] +ARNI <sub>1</sub> 'emerge' [emergence of a thing from obscuring medium] +BIRLI 'consume' [complete consumption of something]
Transitive	+A 'extend' [action directed outwards from actor towards something]	+ARRI 'throw, put' [relocation in space or state of a thing by action of an external agency that is not normally in continuous contact with the thing]

for one reason or another, for example, through lack of energy input. By contrast, the entry into these states, the events of sitting down, standing up, and lying down, are accomplishments: they have a definite point at which they are achieved, namely, when the new state or position is reached. Whenever a classifier in the first column is used the event is assigned to the extendible type; whenever one from the second column is used, it is assigned to the accomplishment type.

The four main rows contrast in transitivity. Two categories of event are exclusively reflexive-reciprocal; three are entirely intransitive; two are entirely transitive; and the remaining five can be either intransitive or transitive, though transitive events predominate in each of them.

The three extendible categories are distinguished from one another in terms of transitivity, whether the event is reflexive-reciprocal, intransitive, or transitive. Table 8.9 indicates the number and semantic range of UVs assigned these three categories.

The accomplishment categories are partly distinguished by transitivity, and carry at least some transitivity specification. In addition, most indicate something about the activity 'shape' of the event: they specify an abstract profile of activity



characteristic of the event, as per the specifications in square brackets in Table 8.8. The +DI category, for instance, involves induced contact or severance of contact between two things by an external agent that maintains for a time contact with one thing, the movement of which it controls (see Figure 8.2). About seventy UVs are known to occur with +DI. They refer to events of the following types: giving and putting (e.g. *ngang-* ‘give’, *lamaj-* ‘bring up to’, *yood-* ‘put down’); removal (e.g. *bala-* ‘send away’, *gij-* ‘remove’, *loow-* ‘push away’); connection and deposition (e.g. *birrib-* ‘block up’, *nyoonoong-* ‘move by physical contact with’); establishment of perceptual contact (e.g. *gilba-* ‘notice, catch sight of’, *wab-* ‘catch smell of’, *minyirran-* ‘notice’); and failure or prevention of engagement (e.g. *gilij-* ‘prevent, block’, *garloo-* ‘find nothing’).

The +MI category is a very general one, specifying little more than that the event is an accomplishment and an activity – an event that involves active engagement by an actor, rather than one that befalls or happens to someone or something. Around a hundred UVs are known to be classified by +MI; these cover a

Table 8.9 Outline of content of the three Gooniyandi extendible categories

Category	Number	Range of UVs and their semantic types
+ARNI <sub>2</sub>	≈22, probably not closed	Some UVs of induced motion (e.g. <i>rirr-</i> ‘pull’); a number of UVs of perception and cognition ( <i>mila-</i> ‘see’, <i>danyмили-</i> ‘hear’, <i>lingi-</i> ‘think about’); some UVs of communication and vocalisation ( <i>jijag-</i> ‘speak’, <i>miga-</i> ‘say’, <i>narda-</i> ‘cry’); and some UVs of bodily behaviour ( <i>ngarloog-</i> ‘clench (e.g. fist)’).
+I	≈125, open	Many UVs of motion ( <i>ward-</i> ‘go’, <i>girragirra-</i> ‘run’, <i>bayal-</i> ‘swim’, <i>riny-</i> ‘blow (of wind)’); state ( <i>wara-</i> ‘stand’, <i>warang-</i> ‘sit’, <i>bagi-</i> ‘lie’); change of state in progress (e.g. <i>nyamani-wa-</i> ‘be growing big’); communication and vocalisation ( <i>jijag-</i> ‘speak’, <i>miga-</i> ‘say’, <i>narda-</i> ‘cry’); perception (e.g. <i>mila-</i> ‘see’, <i>danyмили-</i> ‘hear’); and bodily functions and moves ( <i>nyimij-</i> ‘blink, wink’, <i>ngaa-</i> ‘open (mouth)’, <i>woorloorl-</i> ‘ache’).
+A	≈200, open	Continued contact-action on some entity (e.g. <i>burr-</i> ‘rub’, <i>wirrij-</i> ‘scratch, dig’, <i>thirig-</i> ‘cover with earth’); a few induced changes of state (e.g. <i>ngarag-</i> ‘make, construct’, <i>wooboo-</i> ‘cook’); holding and carrying ( <i>goorij-</i> ‘hold’, <i>warang-</i> ‘sit with’, <i>ward-</i> ‘carry’, <i>galiny-</i> ‘carry’); induced motion ( <i>riny-</i> ‘blow something along (of wind)’, <i>loow-</i> ‘push along’, <i>joorra-</i> ‘chase’); motion with respect to ( <i>boorloob-</i> ‘follow’, <i>loorroob-ji-</i> ‘keep changing direction following’, <i>boonoong-</i> ‘follow river’); consumption ( <i>ngab-</i> ‘eat’, <i>ngoorloog-</i> ‘drink’); elimination of bodily products ( <i>thirraj-</i> ‘evacuate’, <i>nhar-</i> ‘piss’); perception and cognition ( <i>mila-</i> ‘see’, <i>danyмили-</i> ‘hear’, <i>lingi-</i> ‘think about’); and a few vocalisations ( <i>ngalany-</i> ‘sing’, <i>lilili-</i> ‘preach’).

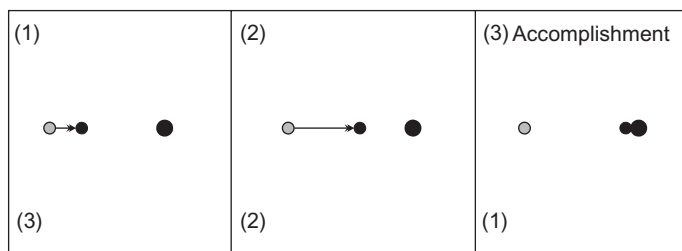


Figure 8.2 The action ‘shape’ of events assigned to the Gooniyandi +DI category.

fair number of semantic domains, including violence (e.g. *dij-* ‘snap’, *thoolng-* ‘kick’); motion (e.g. *balbirr-* ‘many return’, *baward-* ‘many climb up’); induced motion (e.g. *ngirr-* ‘throw stone’, *woodij-* ‘throw spear’); change of state (e.g. *booboob-* ‘swell up’, *bitha-* ‘get stiff’); induced change of state (e.g. *girib-* ‘finish’); perception (e.g. *yilga-* ‘glance at’ (avoidance style)); communication (e.g. *miga-* ‘say, tell’, *jig-* ‘tell’, *baa-* ‘call out’); and some bodily experiences (e.g. *ngirrinyjila-* ‘hungry’, *thirri-* ‘angry’).<sup>9</sup>

The system of event classification in Gooniyandi is in many respects typical. The semantic features employed are not unusual, although of course the specific details vary considerably from language to language. It is normal for classifying IVs to fall into two sets, one specifying accomplishments, the other extendible events. It is also normal for transitivity distinctions to be made; in many non-Pama-Nyungan languages one or two IVs specify reflexive-reciprocal action. Often a few IVs fail to make these distinctions (like the five classifiers in Gooniyandi that do not specify transitivity). In addition to these two fundamental parameters, it is usual for some categories to provide information on the ‘shape’ of the event. Most languages also have one or two categories that are much more general than the others; these are the largest in terms of the number of UVs they contain. There are also almost always very restricted and small categories, like the +BIRLI category in Gooniyandi that has just three known members, and whose meaning is most specific.

### 8.3.3.2 Verb classification in Nyulnyul

As a second illustration of verb classifying systems, we look briefly at Nyulnyul, which, in terms of formal properties, represents the opposite extreme to Gooniyandi. Nyulnyul has over two hundred IVs, all of which can occur in SVCs. Nine IVs are common in CVCs, and another ten or so occur in combination with just one or two UVs. Despite the formal differences, the semantic features relevant to the classifying systems are remarkably similar, as shown by Table 8.10.<sup>10</sup>

It will be noticed that two categories do not distinguish events according to whether they are extendibles or accomplishments, a contrast that is rigidly

Table 8.10 Semantic characteristics of primary classifying IVs in Nyulnyul

	<i>Extendible</i>	<i>Accomplishment</i>
	-BARNJ 'exchange' [reflexive/reciprocal action]	
Intransitive	-N 'be' [stative (non-dynamic)] -JID 'go' [activity progresses over time]	
	-J 'do, say' [dynamic activity]	
Intransitive or transitive	-KAL 'wander' [action not uniquely directed towards a specific goal] -K 'carry' [move something by constantly applied force to new location]	-M 'put' [induce something to enter new state, condition, or location] -R 'pierce' [action taking place in a straight line, impacting on something at a point] -W 'give' [action directed outwards from actor, making contact with something] -NY 'get' [acquire or achieve an entity or condition by active means]

maintained in Gooniyandi. Nor are there any specifically transitive categories, although – except for the -J 'say, do' and -KAL 'wander' categories – most of the categories that are unspecified for transitivity contain mainly transitive UVs.

The lexical meaning of an IV – the meaning it has when used alone in a SVC – is *not* identical with the meaning specification of the category that it marks in a CVC. (Compare the meanings of the main verbs *have* and *be* in English are not the same as the meanings associated with their various auxiliary uses.) They are of course related: for instance, the -KAL category is constituted by events the action of which is not directed anywhere in particular, which is clearly related to the lexical meaning 'wander'. (It would be surprising indeed if the -KAL category conveyed the meaning associated with the -NY category!)

### 8.3.3.3 *Final remark*

Some languages may have more than one type of compound verb construction, that is, CVC-types in which the IV does not serve as a classifier. In Warlpiri, for example, there is a type of CVC in which UVs are virtually unrestricted in terms of the IVs they combine with. Here the IV serves as the main lexical specifier of the event, and the UV delimits a subtype of that event, as illustrated by the combinations of YI- 'give' with UVs shown in (8.28). Observe that in each case an event of giving is being referred to; by contrast, the combinations shown in (8.29) involve classifying CVCs, in which the IV does not lexically specify the event, which is clearly not a type of giving.

(8.28)	<i>kutu</i> ‘anything’ <i>nganjini</i> ‘on arrival’ <i>yarda</i> ‘more’ <i>pina</i> ‘back’ <i>yajarri</i> ‘gift’	} YI- ‘give’	{ ‘give anything at all’ ‘give on arrival’ ‘give some more’ ‘give back to’ ‘exchange something freely’	Warlpiri
(8.29)	<i>rduul</i> ‘expand rapidly’ <i>jakuru</i> ‘farewell’ ?? <i>Jinjin</i> ‘request favour’ <i>rdungkurr</i> ‘dislodge’ <i>juta</i> ‘hit ground’ <i>mirrmirrparlu</i> ‘shine’	} YI- ‘give’	{ ‘light/fan fire’ ‘take leave of, announce one’s departure’ ‘request favour of’ ‘dislodge’ ‘hit ground to determine presence of yams’ ‘make something shine’	

## 8.4 Origin and development of verbal constructions

Resemblances exist between conjugation classes of IVs and categories of UVs defined by IVs in CVCs. In both cases the words belonging to a particular part-of-speech are assigned to categories by virtue of a set of distinctive items (conjugation markers or IVs) that are found in association with them; each word of the part-of-speech occurs with a restricted subset of the distinctive items.

In the author’s opinion many Pama-Nyungan IV conjugation classes derive historically from UV categories marked by IVs,<sup>11</sup> the conjugation markers themselves being often relics of previously classifying IVs. Beginning with a fairly loose type of CVC such as is found in Nyulnyulan languages, over time the UV and IV became more and more tightly fused, until they formed a single word. With further passage of time, the IVs wore down until they were eventually reduced to single segments; these often show up as the same phoneme, sometimes as different phonemes in different grammatical environments. As these processes were going on the IVs were losing their status as lexical words, becoming grammatical morphemes, ultimately inflections to the former UVs. The following two observations lend credence to this scenario.

First, as observed in §8.2.3, in all Kimberley Pama-Nyungan languages there are strong correlations between the conjugation classes and transitivity. These correlations can be accounted for if the conjugation classes derive historically from CVC verb classification systems. Given the strong associations between categories of UV marked by IVs in CVCs in modern languages, it is reasonable to presume that similar associations existed in the CVCs of some ancestor of the Pama-Nyungan languages.

Second, at least for a few conjugation markers it is possible to find potential IV cognates. The best contenders are the conjugation markers *ng* and *m* (not represented in the languages discussed in §8.2.3, but found widely in Pama-Nyungan), which are possible reflexes of the IVs *ka-* ~ *ga-* ‘carry’ and *pu-* ~ *bu-* ‘hit’. Consistent with this, both conjugation classes are predominantly transitive; strikingly, the *ng* class usually contains the modern verb *ka-* ~ *ga-* ‘carry’, while the *m* class usually contains

*pu-* ~ *bu-* ‘hit’. The conjugation markers are the nasals corresponding to the initial stops of the IVs, and thus are not implausible cognates. The nasal component may have arisen as a result of fusion of inflectional material with the IV root.<sup>12</sup> More speculatively, the conjugation markers *n* and *l* may derive from IVs \**NYii-* ‘sit’ and <sup>3</sup>*la-* ‘spear, pierce’.

The story does not begin with CVCs and end with IVs distinguishing conjugation classes. It is likely that CVCs originated in combinations of ideophones and full inflecting verbs, as illustrated by (8.30), with the ideophone *wirri-wirri-wirri* ‘tumble-tumble-tumble’.

- (8.30) *wirri-wirri-wirri*            *baboorroo* *gard-b+ani-wirrangi*,    Gooniyandi  
 tumble-tumble-tumble    below    fall-3sgSUB+ANI-3sgOBL  
 ‘Tumble, tumble, tumble, he fell down next to them.’

Speakers may have begun using utterances like (8.30) more frequently for expressive effect, as alternatives to the plain verbal constructions that lacked in vividness. Only a restricted number of high frequency IVs with general meanings like ‘say, do’, ‘be’, ‘go’, ‘fall’, ‘hit’, etc. occurred in these expressions, partly because so much expressive meaning was conveyed by the ideophone.

This mode of expression slowly took over from the plain verbal construction, ultimately becoming the normal means of referring to a larger and larger number of events. The existing set of ideophones was inadequate, and more words were needed. These came from various sources, including other parts-of-speech, and borrowings from neighbouring languages – Gurindji, for instance, borrowed many such words from Jaminjung. It is likely that a number were also invented, modelled on ideophones: typically words of a single syllable ending in a consonant which often had sound-symbolic value. Thus emerged UVs as a distinct part-of-speech.

Because of the restricted number of IVs occurring in these expressions, the IV began losing its event-specifying potential, this role being taken on by the UV. IVs thus started on the road to becoming classifiers. UVs and IVs continued to become more and more closely connected syntactically and semantically, resulting in CVCs such as are found in modern languages. Further developments led to Gooniyandi-type verbal constructions, and ultimately to the situation represented by a number of Pama-Nyungan languages of Eastern Australia, where the verbal construction consists of just an IV, and the IVs constitute a large open set.

This was not the end point of development. At this point the cycle of processes can begin again. Over time the IVs in such a system might lose their expressive potential, and ideophones come to be used with some high frequency general IVs. There are languages that seem to be at this stage, including the Queensland language Yir-Yoront (Alpher 1994), and Wangkajunga. Most Kimberley Pama-Nyungan languages have, as we have seen, moved further along this path and redeveloped CVCs. Quite likely over the millennia a number of these cycles have occurred, from languages with an open class of inflecting verbs to languages with classifying CVCs. Of course, we cannot know at what point on the cycle it all began.

## 8.5 Other verbal morphology

Some of the main verbal categories represented in Kimberley languages have been discussed in the previous sections. Two less widespread categories are dealt with in this concluding section, directionals and non-finite verbs.

### 8.5.1 Directional suffixes

In a number of Kimberley languages IVs can take one or two morphemes that indicate direction of movement with respect to the speaker. These morphemes always follow the IV root and most of the inflectional suffixes; however, their status as suffixes or enclitics is uncertain, since they occur at the borderline between what are clearly suffixes and clearly enclitics. Quite possibly their status differs across languages.

Some languages, for example, Bunuba and Ngarinyman, have a single suffix indicating direction towards the speaker, ‘hither’. In Ngarinyman the suffix is *-rni(ny)*, as in (8.31):

- (8.31) *ga-nya-rniny ba-rna murla-nggurra* Ngarinyman  
 take-PA-HTH CAT-1sgSUB here-ALL  
 ‘I brought it hither.’

Worrorran languages have two directional suffixes, one indicating direction towards the speaker, the other, direction away from the speaker. In Ngarinyin the ‘hither’ morpheme is *-walu ~ -alu ~ -lu*, and the ‘thither’ is *-nya*:

- (8.32) *ngabun baward-ba weny-alu* Ngarinyin  
 water come:out-IT 3sg<sub>w</sub>SUB/be/PA-HTH  
 ‘The water came out this way.’

- (8.33) *winyjangun wurru-ma-n-nya* Ngarinyin  
 firewood 3sg<sub>w</sub>OBJ/3plSUB-take-PRES-TTH  
 ‘They take firewood away from here.’

Worrorra has the cognate *-al* HTH (compare also Bunuba *-ali* HTH), but *-ngurru* TTH; in Wunambal the forms are unrelated *-nga* HTH and *-da* TTH.

Directional markers are not restricted to IVs of motion: an event involving a component of motion may take a directional marker on its IV. IVs referring to events in which an object is relocated can take the marker, as in Ngarinyin *jan-ngulu-lu* (1sgOBJ-give-HTH) ‘give it to me’. The directional marker may indicate more abstract motion, not necessarily of either subject or object, but of the action, as in Unggumi *jowir ima-ngurru* (rub I:will:say-TTH) ‘I’ll rub it (away from myself)’ and *duba ingawu-ngurru* (hit I:will:hit-TTH) ‘I’ll hit him (directing action away from myself)’.

8.5.2 *Non-finite verb forms*

Up to now we have dealt almost exclusively with finite verbs; that is, basically, verbs marked for tense or mood, permitting the event to be pinned down to a particular occurrence in the time, much as demonstratives pin things down in space. In many languages non-finite forms exist that do not pin the event down to a particular occurrence, that designate generic or non-specific events.

In Gooniyandi non-finite verbs involve a UV (strictly speaking verb root or stem) followed by a bound morpheme. This may be a derivational suffix (e.g. agentive *-mili* or *-gali*), a postposition (*-ya* LOC, *-nhingi* ABL, *-yangga* ABL, *-ngarri* COM, or *-woo* DAT), or an infinitival suffix (*-bari* INF<sub>1</sub>, if the event is an accomplishment – (8.34), or *-mawoo* INF<sub>2</sub>, if it is extendible – (8.35)).

- (8.34) *girili lalbag-bari wara-a+ri* Gooniyandi  
 tree split-INF<sub>1</sub> stand-3sgSUB/PRES+I  
 ‘The tree is standing split.’

- (8.35) *yoowooloo ngirndaji wandaj-mawoo ward-gi+ø+ri* Gooniyandi  
 man this carry-INF<sub>2</sub> go-PRES-3sgSUB+I  
 ‘This man is walking along carrying (something on his shoulders).’

Many Kimberley languages have non-finite verb forms consisting of a UV together with a nominal derivational suffix or postposition, as in (8.21) and (8.22). It is less common to find non-finite or infinitival forms of IVs. Worrorran and Jarrakan languages lack them entirely; they are present, though infrequent, in most Nyulnyulan and Pama-Nyungan languages.

Nyulnyulan languages almost all have infinitival IVs involving the prefix *ma-* ~ *mi-* ~ *mu-* and the imperfective suffix.<sup>13</sup> The prefix replaces all the prefixes of finite IVs except the class-marking prefix *na-* and the reflexive-reciprocal *ma-*; the suffix replaces every suffix except the reflexive-reciprocal *-nyj(i)*. Infinitival forms thus preserve the two pieces of information most intimately related to the IV root: the conjugation class, and the stem-deriving reflexive-reciprocal.

Infinitival forms of IVs are found in various contexts; most commonly they are used in derived nominals. They are the only IV forms that can take nominal derivational affixes, as in e.g. Nyulnyul *ma-janb-in-id* (INF-trample-IMP-AG) ‘kicker’, and Nyikina *ma-rli-n-id* (INF-eat-IMP-AG) ‘one who like to eat, a glutton’ or ‘edible’. Infinitival IVs are used in Nyikina to indicate qualities of things as in (8.36), simultaneous actions as in (8.37), and generalisations or universal truths, as in (8.38).

- (8.36) *warli ma-marra-n-junu ...baaba-nil-ni gab* Nyikina  
 meat INF-burn-IMP-ABL child-pl-ERG eat  
*yi-rr-i-na buju*  
 3SUB-pl-say-PA all  
 ‘The children ate all the meat that had been cooked.’

- (8.37) *wamba yi-nga-n ma-marra-n-kaya warli Nyikina*  
 man 3minSUB-be-IMP INF-burn-IMP-CONT meat  
 ‘The man is sitting cooking meat.’

- (8.38) *bulkabulka ngunyjin ma-ma-n kanyjirr-junu ...jurru-ni Nyikina*  
 weak inclined INF-make-IMP look-ABL snake-ERG  
 ‘The (water) snake is likely to make you powerless from staring.’

Infinitival IVs in Pama-Nyungan languages are also commonly found in derived nominals, as in Karajarri *paja-na-jangka* (bite-INF-ABL) ‘one who has been bitten’, *jinta-na-jangka* (break-INF-ABL) ‘broken’, and *paja-na-idi* (bite-INF-AG) ‘one who like to bite, a biter’. As mentioned previously, in languages such as Walmajarri (example (8.26)), Jarú, and Warlpiri, infinitival IVs are used in CVCs as UVs. They are also used to indicate simultaneous events (example (8.39)) and in certain types of subordinate clauses (example (8.40)).

- (8.39) *yambagina lung-u-lung-u-warra yan-i Jarú*  
 child cry-INF-cry-INF-ASP go-PA  
 ‘A child came, crying.’

- (8.40) *ngumbirr-u mawun nyang-an ngaba-ngba ngarn-u-ngga Jarú*  
 woman-ERG man see-PRES water-LOC drink-INF-LOC  
 ‘A woman sees a man drinking water.’

In Nyulnyulan languages we find just two types of non-finite verb: UVs with a suffix or postposition, and infinitival forms of IVs. The latter are non-finite forms of SVCs; corresponding to CVCs are non-finite forms of the former type – there are no CVCs involving infinitival IVs. In some Pama-Nyungan languages, however, including Jarú, Walmajarri, and Gurindji, there are non-finite CVCs consisting of a UV together with an infinitival IV. Here are two examples:

- (8.41) *mawun yan-an yud nyinang-u-wu Jarú*  
 man go-PRES sit sit-INF-DAT  
 ‘A man goes to sit down.’

- (8.42) *ngumbirr-u mawun nyang-an jaji-wu muwu-wun-u-ngga Jarú*  
 woman-ERG man see-PRES kangaroo-DAT search-hit-INF-LOC  
 ‘A woman sees a man looking for a kangaroo.’

In (8.41) the UV and IV are loosely connected, while in (8.42) they are tightly connected and form a single word. In the former, the infinitive IV could be omitted, in which case the dative postposition would be attached to the UV; this is impossible in the latter case, where both UV and IV must be present in the non-finite verbal construction.



### Further reading

The status of a VP unit consisting of everything except the subject, that is, the verb plus object, indirect object, etc. in Australian languages has been challenged in recent years (e.g. Hale 1983). In fact, it has been challenged a long time in relation to languages generally, including English (e.g. Longacre 1960; Halliday 1994; McGregor 1997a).

Numerous works discuss the major verbal categories of tense, mood, and aspect. Among them I recommend Bybee *et al.* (1994), Dahl (1985), and Lyons (1968: 304–17). Discussion of the meanings and uses of these categories in grammars of Australian languages tends to be brief, most space being devoted to their formal expression.

Dixon (1980: ch. 12) provides coverage of the morphology of inflection-taking verbs in Pama-Nyungan languages including extensive treatment of conjugation classes; little is said about compound verb constructions. Short descriptions of the latter in a considerable number of languages can be found under Topic E ‘Simple and compound verbs – conjugation by auxiliaries in Australian verbal systems’ in Dixon (1976).

The view that the IV serves a classificatory role in CVCs has been put forward under different guises by many investigators including Birk (1976), Capell (1979), Clendon (2001), Green (1989), Knight (in preparation), McGregor (1990), Nicolas (1998), Reid (1990), Rumsey (1982a), Schultze-Berndt (2000), Silverstein (1986), and Tryon (1976). The interpretation of this chapter is my own construal, developed more fully in McGregor (2002a: ch. 6) which outlines an approach to the grammatical analysis of CVCs; alternative treatments are developed in Blake (1987), Reid (2000), Schultze-Berndt (2000), and Wilson (1999).

## VOCABULARY AND MEANING

### 9.1 Range and depth of vocabularies

We have already mentioned that Australian languages, contrary to popular belief, have extensive vocabularies, embracing terms for whatever speakers need to talk about. Unlike English, Australian languages were spoken by small groups of people, who lived their lives within relatively restricted domains – usually of the order of several thousand square kilometres – and had little experience or knowledge of the world beyond. This fact has important consequences on their vocabularies, which reflect the relatively confined environments of the speakers. Thus no Kimberley language has a word for ‘snow’, since this phenomenon does not occur naturally within the region, and in traditional times no one would have travelled anywhere where there was snow, or even heard of it. Languages such as Gooniyandi, spoken hundreds of miles inland, appear to have had no term for ‘sea’, while the languages of Dampier Land, which has no large watercourses, had no terms for ‘river’ as distinct from ‘creek’.

How many words are there in each Australian language? This raises the question of what to count. Obviously we would not count every word instance in every recorded utterance, and to do so would not be relevant to our question. Nor would we count every inflectional form of a word such as a nominal or a verb; for, if we did, in Nyulnyul every inflecting verb (see §8.2) would be counted tens or hundreds of times, according to its different tense, aspect, mood, person, and number forms. What we count are the vocabulary items that one would list in a dictionary: basically roots and stems. In this chapter, unless otherwise specified, the term *word* will be used in this sense.

It is not difficult to collect a vocabulary of around 2,000 roots and stems by simply eliciting translations for English words. Beyond that things get difficult due to marked differences in terms of what is given a label or name. It has been suggested that each Australian language generally contains around 10,000 words, approximately the number of words an average speaker of a European language would be familiar with. This may or may not be a good guess: to date no dictionary has appeared with anything like that many items. One thing that we can be certain of is that there were fewer words than in world languages such as English,

which contain some hundreds of thousands of words – thanks to writing, words can be recorded and preserved outside the speakers' minds, obviating memory limitations.

Any figure for the size of a language's vocabulary will of course be an approximation. Vocabularies differ among speakers both in content and size; they are open not closed. They are not static: words go out of fashion or are tabooed, and are replaced by other words; in addition, most Kimberley languages have in recent times borrowed extensively from English, just as in pre-contact times they borrowed extensively from one another.

Australian languages did not lack terms for items in the physical and cultural environments of their speakers. Indeed, Aborigines had an intimate knowledge of their physical environment, and its flora and fauna, which knowledge is reflected in the proliferation of terms covering these domains. There are usually specific terms in daily use for a considerable range of different types of flora and fauna which in English would only be distinguished in the discourse of specialists in botany and biology. For example, most speakers of English in Australia would group together a variety of different tree types under the labels *gum tree* and *wattle tree*, which have their own name in Kimberley languages, and would be distinguished in everyday discourse. Similarly, most English speakers distinguish just two classes of macropods: wallabies and kangaroos (and then often by size!). Speakers of Kimberley languages normally have a considerably larger number of distinct terms referring to various species which they keep rigidly distinct. This is not to say that only specific terms exist, and that speakers are unable to generalise. Most Kimberley languages have a generic term for 'kangaroo' as well, which is usually also the name for one species. The generic term might be used if the species could not be determined or was unimportant – for example, in the context of planning a hunting trip, where no species is targeted in particular.

Aboriginal languages also show considerable elaboration in terms for parts of the body, the average adult speaker distinguishing organs and bones which in English discourse are distinguished only by medical practitioners. There are, for example, usually different words for the stomach (the internal organ) and the external surface of the abdomen; moreover, the former is never used in reference to nearby internal organs such as the intestines. Kimberley languages generally have distinct terms for bodily hair and hair of the head, the former also referring to the fur of an animal. Sometimes both are distinguished terminologically from underarm and pubic hair. There are also cases where distinctions are made in English but not in Aboriginal languages. Thus, one term usually serves for both fingernails and toenails; and in some languages a single term covers 'vein', 'artery', and 'tendon'.

The territory of each language is richly endowed with placenames. In large river systems such as the Fitzroy and its tributaries each waterhole is named. (By the end of the dry season the river consists of a string of waterholes connected by narrow channels of running water.) In the desert regions, each claypan of any size is named. Place names do not necessarily have any meaning in the language; nor

do places take the names of prominent people. Virtually every placename in Gooniyandi territory is a simple unanalysable word. Of a hundred or more place-names I gathered in this language only two have any apparent meaning: *diyadiya-blirrijgilayi* 'place where the peewee went *blirrij*', and *goonyarr-goojarra* 'Two Dogs mountain' – *kunyarr* is the word for 'dog' in neighbouring Walmajarri, and *kujarra* is the word for 'two' in most Pama-Nyungan languages (though not Walmajarri).<sup>1</sup>

Terms also existed for topographic features such as rivers, creeks, hills, caves, cliffs, various types of rock, and the like, where these existed in the territory. So also were there terms for various types of rock, sand, and ochre, as well as terrestrial phenomena as the sun, moon, sky, stars, clouds, and so on.

Aborigines did not measure time in ways westerners are now accustomed to: no terms exist for such units as seconds, minutes, or hours. At least these days there are ways of specifying larger, more 'natural' units like days, months, and years in most languages. In Gooniyandi *riwi* 'camp, place' is used in reference to 'day' (presumably this is motivated by the association of a camping place with a day), *jaalinyi* 'moon' is used for 'month', and *gamba* 'water' is used for 'year' (based on measurement of a year from one wet season to the next). A very similar system is found in Walmajarri, which uses the terms for 'camp', 'moon', and 'wet season' respectively. It is impossible to know for certain whether or not these usages were in effect in pre-contact times. On the other hand, each language had terms for seasons and parts of the day. Walmajarri distinguishes three seasons: *parrangka* 'hot season', *yitilal* 'wet season', and *makurra* 'cold season'. It divides the day into *kumanta* 'morning', *jininyara* 'mid-day', *karuwarra* 'afternoon', *pukanyja* 'night', and *rakarra* 'half light of dawn'. Other temporal words include *jalarra* 'now, presently', *jarlu* 'in the past', *warra* 'in a little while', *walimpa* 'later on'. Other Kimberley languages had similar sets of time words.

Kinship vocabularies consistently make more distinctions than English. Kin-terms are frequent in reference and address, and could be used with any known person; so also were section, subsection, and moiety terms (see §3.2). People of course had their own personal name, given to them around birth. These names were considered very personal (see §10.3.5). As the anthropologist William Stanner aptly put it:

the personal names by which a man is known are something more than names. Native statements suggest that names are thought to partake of the personality which they designate. The name seems to bear much the same relation to the personality as the shadow or image does to the sentient body... Names are not symbols so much as verbal projections of an identity which is well known in the flesh. This is well illustrated by the widely reported ban upon the name of the dead.

(Stanner 1937: 301)

Because of this, personal names were rarely used in either referring to a person or addressing them. (The name might be heard by a malevolent spirit or person,

who might, with possession of the name, ensorcell the person.) In the Kimberley region, personal names were frequently meaningless, and could often be identified by their form – many names for males in a number of languages along the southern border of the Kimberley end in *-(y)arri*.

Two individuals sometimes (though rarely) share the same personal name. Namesakes were considered to have a particularly close personal relation to one another, to share important aspects of their personalities. They might be expected to interact in particular ways, and to share certain mutual social obligations.

In addition to their personal name, an individual might have one or more nicknames, alluding to some event or personal habit or characteristic (see §7.5.1). In some languages people had metronymics, names given after their mother. In Ngarinyin metronymics were formed by adding the suffix *-yali* ~ *-ali* to the mother's name; thus *Mowanbarrayali* 'son or daughter of *Mowanbarra*' and *Membinali* 'son or daughter of *Membin*' (Rumsey 1982: 56). Names were also commonly given after a person's conception site. In Gooniyandi, they were formed by attaching the suffix *-wanggoo* 'person intimately associated with the place' to the placename, as in *Malawanggoo* 'person with conception site *Mala*'. In Nyulnyul, such names were compounds with *bur* 'place' as the second element, as in *Ngurdinbur* 'person with conception site *Ngurdin*'.

Today, Kimberley Aborigines have not just their own personal name, but also a *gardiya* or 'whitefella' name. In the recent past, this was usually a single name, given by a station manager; not infrequently these were insulting or demeaning – a genuine example is *Monkey*. It is now usual – because of bureaucratic requirements – for a person to have two *gardiya* names, a first name and a surname, sources of which include the local station managers' surname, and the father's sole *gardiya* name. *Gardiya* names are usually not considered to be as personal as traditional 'bush-names', and are less often subject to death-taboo.

Various stages in a person's life are distinguished terminologically. These differ from stages distinguished in English. The following is a list of some of the stages in a male's life distinguished in Gooniyandi:

<i>booga, jiginya</i>	baby
<i>gambayi</i>	young boy
<i>yarrbanyji</i>	pre-initiate boy
<i>gooloowadi</i>	novice
<i>boornoonggili</i>	male in final stages of initiation
<i>yoowooloo</i>	fully initiated or mature man
<i>boolga</i>	old or respected man

Age is not the primary factor distinguishing one stage from the next, as it generally is in western culture, and many stages are marked by a rite of passage (see §2.1). Connotations associated with some of the terms differ from the connotations of their English counterparts; in particular, *boolga* 'old man' has much stronger connotations of respect than the English *old man*, as does *barndanyi* compared to *old woman*.

Artefacts of course all have names. Usually there are words for generic classes of items such as 'spear', 'boomerang', 'coolamon', and so on, in addition to terms for specific types – spears, boomerangs, coolamons, etc. come in different sizes and shapes, and are made from different materials depending on use. The generic term is often the name of a specific type.

In Australian languages a single word often denotes a thing and its source, that which it is primarily constituted of or derived from. Many languages have the same word for 'fire' and 'firewood', for 'breast' and 'milk', for 'foot' and 'foot-print', etc. Artefacts are sometimes named after the material they are manufactured from. Boomerangs are sometimes named after the wood from which they are made; the same name also applies to the tree this comes from. The term *jimbila* is used in Gooniyandi and various other languages for both quartz, and a type of spear-tip made of quartz – the Kimberley point (Plate 3.1).

Thus far we have considered primarily nouns, which generally label things. Regardless of whether or not a language has a separate adjective part-of-speech (see §5.2), it will have words referring to properties of things such as colour, shape, size, and texture.

Kimberley languages have, of course, many words belonging to other parts-of-speech, including adverbs and verbs. Usually there is a fairly rich class of adverbs, providing information on time (see p. 193) and space (see §9.5). There are normally also a number of manner adverbs indicating qualities of events, such as 'quickly', 'slowly', 'clumsily', and so on.

Each Kimberley language contains a considerable number of verbs, where the term is used loosely to denote words of both classes, IV and UV (where they are distinguished). Event types covered include: states (such as 'sit', 'lie', 'stand', etc.); motion ('go', 'run', 'swim', 'fly', etc.); induced motion ('put down', 'drag', 'push', etc.); violence ('hit', 'spear', 'burn', 'burst', etc.); speech and vocalisation ('talk', 'tell', 'name', 'ask', 'answer', etc.); cognition and perception ('see', 'hear', 'think', etc.); and bodily processes ('eat', 'drink', 'shrug shoulders', 'cry', etc.). In addition there are extensive sets of verbs for ceremonial activities ('dance shake a leg', 'subincise', etc.) and culturally specific activities ('avoid speaking to, speak shamefacedly towards', 'observe food taboo', etc.), for which English often has no simple translation equivalents.

Just as single nouns sometimes cover both an item and a product that can be made from it, so too we find that there are verbs that cover both an event, and the natural result of an event. In most Aboriginal languages the same verb covers both 'hit' and 'kill'; this is true of the Gooniyandi verb *gard-*. Similarly, 'sink in the water' and 'drown' are usually the same word: for instance, the UVs *ngurrngurr* (Nyulnyul) and *ngoorrrgoorr* (Bardi) both mean 'immerse or sink in water' and 'drown'. Similarly, one verb usually covers 'listen' and 'hear' and 'look' and 'see' (though 'listen for' and 'look for' are normally different).

To conclude this section the reader's attention could perhaps be drawn again to the current state of study of Kimberley vocabularies. Although many wordlists are now available, some quite extensive, reliable and comprehensive dictionaries are virtually

non-existent (as mentioned in §1.3). This means that claims about vocabularies must be treated with caution. This particularly holds for claims about deficiencies – which could well reflect deficiencies of the linguist's fieldwork more than of the language.

## 9.2 Metaphor and extension of meaning

It is useful to make a distinction between the CORE MEANING (or basic meaning) of a word, an aspect of the word's meaning that remains invariant across its uses, and the EXTENDED MEANINGS that it conveys in particular contexts of use. Extended meanings can sometimes be accounted for in terms of the core meaning together with additional meaning components contributed by the context, both linguistic and non-linguistic. For example, as we have already seen, the Gooniyandi word *wayandi* can mean either 'fire' or 'firewood'. There is sufficient commonality between these meanings to consider each to share a common core meaning, the actual meaning in an utterance being predictable from the context. If, for instance someone is told to go out and chop *wayandi*, only the 'firewood' interpretation makes sense, whereas if someone is told to cook a kangaroo on the *wayandi*, only the 'fire' interpretation makes sense. Putting things another way, there is a single word *wayandi*, with a single core meaning, not two different words that just happen to share the same phonological shape, or a single word with different meanings.

Many words are like this, their senses being traceable to single meanings. However, it is sometimes difficult to know whether you are dealing with a single word (or morpheme) with obscurely related senses, or a number of different words, that just happen to sound the same. For example, the Gurindji enclitic *-rni* covers various meanings, including: 'only', 'even', 'right up to', 'until', etc. These seem unrelated to native speakers of English. Nevertheless, it is possible to identify a single core meaning, the range of meanings being accounted for as additions to this core meaning provided by linguistic and non-linguistic factors, as shown by McConvell (1983).

But there are cases where the senses of a word cannot be accounted for in this way. For instance, it is unlikely that a single core meaning is associated with the English word *tree* that is present both when it is used to designate a large plant with a root, a trunk and leaves, and when it designates a diagram like Figure 2.1. It seems more natural to account for the latter sense as a meaning extension motivated by the resemblance of the diagram to the branches of a tree, or to its root system. Such meaning extensions are called METAPHORS, or METAPHORIC EXTENSIONS: the word is applied to something it is not strictly applicable to (in this case, lines drawn on paper), but which it resembles in some respect.

Metaphor is an important and pervasive phenomenon in human languages. Unfortunately, little is known for certain about metaphor in Australian languages. Most of our knowledge of metaphor in Kimberley languages concerns body parts: the use of words for parts of the body for the expression of other types of meaning. Two main types are spatial and emotional or mental.

Murrinh-Patha is replete with examples of spatial metaphor for body-part terms. The word *pangkin* ‘back’, for example, is used metaphorically to refer to ‘ridge’, and in the expression *mayern pangkin wangu* (road back towards) ‘overland road’. There is also a special form of the word, *-rdarri-* ‘back’, that is used when it is incorporated into a verb, and forms a sort of compound with the verb root. This incorporated form appears in a number of metaphorical senses expressing the notion of behindedness, as in, for example, ‘hide behind’, ‘talk behind someone’, ‘sense someone’s presence behind’, ‘imitate’ (follow behind), etc. The last of these is illustrated in (9.1).

- (9.1) *nga-rdarri-riwak-nu* Murrinh-Patha  
 1sgSUB-back-follow-FUT  
 ‘I’ll imitate him.’

In a similar way, the incorporated noun *-marda-* ‘belly, chest’ is used metaphorically to express the notion of frontness and containment, as in ‘remove from container’, ‘fill container’, ‘hop into container’, ‘save up’, and ‘have stomach ache’.

Emotional or mental metaphor of body-part terms involves the use of a body-part noun in reference to an emotional or mental state. Typically, the state will be associated with the part via a culturally specific belief that it is located in the part. In Walmajarri, like many Australian languages, the stomach is regarded as the seat of the emotions, and emotional metaphor is represented in idioms such as *munta kayan* (stomach one) ‘to have a fixed purpose’, *munta parrparr* (stomach hot) ‘anger’, and *munta kirtily* (stomach cool) ‘at peace, content’. In Ngarinyin, by contrast, the kidneys are considered to be the seat of the emotions, and ‘kidney’ is used in the expression *ngiyamadju barij wi* (my:kidney rise it:is) ‘my kidney rises’, a metaphor for ‘I am happy’. In Bardi, as in English, the heart is considered the relevant body part: *liyan* ‘heart’ is used in metaphorical expressions of desires and feelings, as in examples (9.2) and (9.3). (In most Nyulnyulan languages the body-part meaning has been lost, and only the emotional senses remain.)

- (9.2) *barda liyan nganman aarli-ngan jawa* Bardi  
 away heart I:put:it fish-ALL we  
 ‘I want us to go fishing.’
- (9.3) *ingarranboojarrmoord ginyinggamb liyan alig injoogaljard* Bardi  
 he:growled:at:us because:of:that heart bad he:said:to:us  
 ‘He growled at us, and we are upset because of it.’

Intelligence is generally considered to be located in the ear, and ‘ear’ is often used metaphorically for thought, knowledge, and belief. In Walmajarri, *pina* ‘ear’ is found in various metaphoric expressions including: *pina-pina-karri* (ear-ear-stand) ‘think’, *pina-ngu tarrparta* (ear-ERG grab) ‘memorise it, listen and absorb it’, *pina-jarti* (ear-COM) ‘intelligent’, and *pina-yungu* (ear-give) ‘show, teach’.

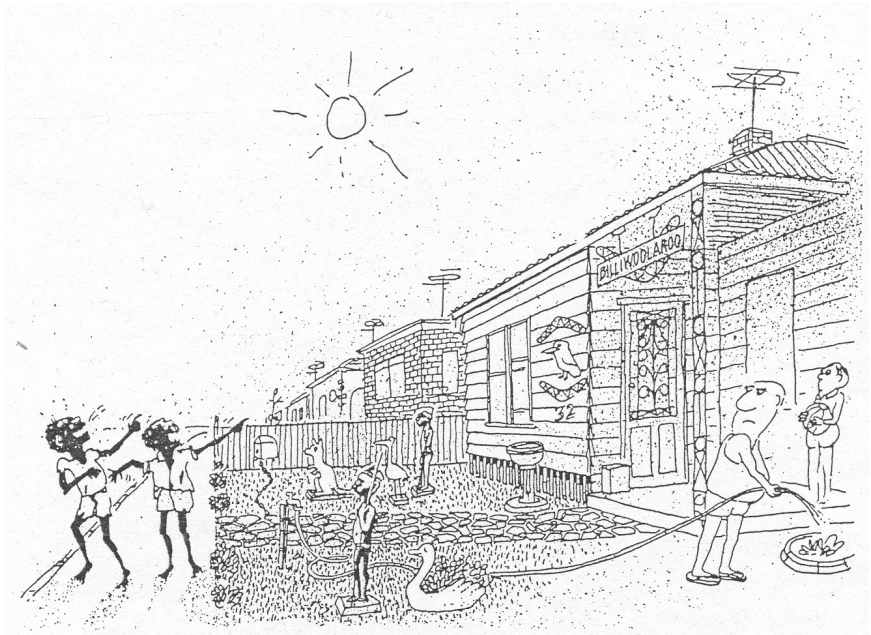


Various other types of body-part metaphor can be identified, including shape metaphor. In Murrinh-Patha, *-ngka-* ‘eye, face’ is used in various verbs to metaphorically express roundedness of some relevant entity in the event, as in *-ngka-rdal* ‘to lay one’s head on a pillow’, *-ngka-y* ‘to poke/probe in a hole using an instrument’, and *-ngka-puth* ‘to dig out sand to get water’.

Other ways words can be used indirectly are in euphemism and dysphemism. EUPHEMISM refers to the use of a mild or indirect term instead of a blunt or harsh one; an example is the use of the Gooniyandi verb *nyin-* ‘forget’ for ‘die’, especially of a close relative. DYPHEMISM denotes the opposite phenomenon, as in the affectionate use of *bastard* amongst Australian males in referring to and addressing close friends. In Nyulnyul, *riib* ‘rubbish, bad’ is used dysphemistically for the most sacred traditional artefacts, ceremony, and mythology (apparently a widespread dysphemism in Australia). Unfortunately, little is known about either euphemism or dysphemism in Kimberley languages, and no detailed investigations have yet been undertaken.

### 9.3 Terms for new items and concepts

During the post-contact period many Kimberley languages have undergone significant changes. Profound sociolinguistic changes have resulted in different modes of language use (§3.6) and sometimes grammatical changes (§13.3). In addition, new items (artefacts, animals, plants, etc.) and concepts (God and cultural



practices such as work, mustering, cattle-branding, etc.) were introduced by Europeans. Words for these new phenomena were incorporated into the traditional languages. Three major strategies for vocabulary expansion are: (a) BORROWING a word from a language which has a word for the item; (b) EXTENDING the meaning of a word already in the language; and (c) COINING a new word using the lexical and grammatical resources of the language.

### 9.3.1 *Borrowing*

As expected, many terms for introduced items and concepts are borrowings from English. For instance, in Walmajarri we find *kilayij* 'glass', *rijap* '(Aboriginal) reserve', *kuul* 'school', *mutuka* 'car', *tuwa* 'store', and so forth; almost exactly the same terms are found in neighbouring Gooniyandi. Many languages have terms like *wajbali* 'white person', and *mijiji* 'white woman' (from *missus*).

Borrowings are usually adapted to the sound system of the borrowing language.<sup>2</sup> Sounds that are not found in the borrowing language are changed or omitted, and unfamiliar word structures are adjusted to what is normal for the language. These points can be illustrated by examination of the Walmajarri examples cited in the previous paragraph. The two fricative sounds *z* (spelled *s*) and *v* of *reserve* – which do not occur in Walmajarri – have been replaced in the borrowed form *rijap* 'reserve' by stops at the closest corresponding points of articulation, *j* and *p* respectively. But in *kuul* 'school' the fricative *s* of the English source word has been lost entirely, as it has also in *tuwa* 'store'. This is because consonant clusters *jk* and *jt* (which we would expect given that *j* replaces *s* and *z*) do not occur at the beginning of words. Another example is provided by *pilangkirr* 'blanket', where a vowel has been inserted between the first two consonants of the English word and the final *t* has been changed to a *rr*. Both changes are motivated by the sound shape of Walmajarri, where *pl* does not occur word initially, and *t* is rarer than *rr* in word final position. Vowel insertion occurs in *kilayij* 'glass', separating the initial *k* from the following *l*.

Stress normally follows the patterns of the borrowing language: thus, it is the initial syllable of borrowed words that are usually stressed, regardless of where stress falls in the English word. The word *rijap*, for example, is stressed on the first syllable, although stress falls on the second syllable of *reserve*.

A word borrowed into an Aboriginal language does not necessarily retain its English meaning. The English word *paddock* was borrowed into Gooniyandi as *badig*, which means both 'paddock' and 'fence enclosing a paddock'. Another example is the Kukatja loan *tjilipinpa* from *slippers*, which means 'thongs', not 'slippers'. (The final syllable *pa* is added for phonological reasons – a free-standing word can't end in a consonant; where the final *n* comes from is unclear.)

It has sometimes been said that English loans are normally taken into the noun class, even if they are verbs, in which case a verb stem will be derived by the grammatical processes of the language (Dixon 1980: 121). This is not true in Kimberley languages in general: loans from English often do go to a verb class, always the UV class if the language distinguishes two classes. Gooniyandi, which

has a single verb class, has borrowed numerous verbs from English, including *bayim* ‘buy’, *radim* ‘ride (a horse)’, *wajim* ‘wash (clothes)’, *jinggabad* ‘think about’, etc.; these are genuine verbs, employed in the same grammatical environments as native verbs.

English is not the only source of borrowings. A number of terms were (and continue to be) borrowed from other Aboriginal languages which had terms for the introduced item, sometimes because the speakers of that language had prior contact with the new item or concept. Sometimes such terms are widely distributed. For example, *magarda* ~ *makarta* ‘hat’ is widespread in Kimberley languages, and apparently comes from *mokarta* ‘head’ in Kurna, a language spoken around Adelaide (some 1,500 kilometres to the south-east).

### 9.3.2 *Extension of meaning*

One of the most consistently found meaning extensions in Australian languages is from the word for ‘stone, pebble, rock’ to ‘money’. This occurs in many, if not all Kimberley languages. The words for ‘rock, stone’ in Nyulnyul (*kumbarr*), Bardi (*goolboo*), Nyikina and Warrwa (*wanangarri*), Gooniyandi (*ngaarri*), Wangkajunga (*purli*), and Kukatja (*pamarra*) all show this extension. Usually it is not just coins that are covered: a request such as *kumbarr wanawngay* (stone you:give:me) in Nyulnyul is as likely to be a request for paper money as for coins. It is clear, however, that coins provide the intermediate link between ‘stone, pebble, rock’ and paper money. (Paper money is sometimes specified explicitly by the term for ‘paper’.) Two other common meaning extensions are for the word for ‘sand’ to cover sugar, as has Nyikina and Gooniyandi *walyarra*; and for the term for ‘water’ to cover beer and other alcoholic beverages, as do Kukatja and Wangkajunga *kalyu*, Nyulnyul *wurl*, and Gooniyandi *gamba*.

Gooniyandi *yoorroo* ‘spider’s web’ has the intriguing meaning extension to ‘telephone’, presumably motivated by the string-like nature of telephone wires extending between post offices. (Until recently telephone connections in the Kimberley were by hard-wiring, not microwaves.) (See also under §9.3.3.)

As the examples just mentioned show, meaning extensions are often in accordance with characteristic physical properties such as shape and appearance. They may also relate to other properties, including inherent qualities and functions. An example of the former is the use of the Nyulnyulan term *linyju* ‘sour, salty’ for ‘grog, alcoholic beverage’, based on taste – a not uncommon extension in Australian languages. An example of the latter is the word for ‘coolamon’ (a type of bark or wooden dish used for carrying liquids, seeds, etc.), which in many languages, is used in an extended sense to refer to vehicles for travel: Walmajarri and Gooniyandi terms for ‘coolamon’, *ngurti* and *yamadi*, also cover ‘car’ and ‘boat’. (In English the term *vessel* is used in a similar way.)

Some kin-terms also show semantic extensions to human classifications that did not exist in the past. The term for ‘father’ is extended in many languages to ‘God’, ‘priest’, ‘bishop’, and/or ‘religious minister’; this is the case for Nyulnyul

*ibal*, Gooniyandi *ngabu* ‘father’, and Walmajarri *ngarpu*. Another example is the use of *marni* ‘sister’ in Gooniyandi for ‘nursing sister’. Unlike many of the examples discussed earlier, these semantic extensions are presumably influenced by English: they appear to be literal translations of uses of the corresponding English relationship terms.

### 9.3.3 Coining new words

Sometimes the lexical and grammatical resources of a language are employed to construct a new word denoting an introduced concept. Categories or qualities of human beings relating to modern practices are sometimes constructed in this way. Examples are the Gooniyandi terms *gamba-nhingi* (water-from) ‘drunk’ and *gamba-mili* (water-good at involvement with) ‘drunkard’ – compare *kalyu-tjanu* (water-from) ‘drunk’ in Kukatja, and *liny-jun* (sour-from) ‘drunk’ in Nyulnyul and Yawuru.

Terms for European artefacts are sometimes coined. For example, the two Gooniyandi terms for ‘aeroplane’ are *bin.gidi-ngarri* (literally ‘with feathers’) and *yoorroo-ngarna* (literally ‘web-dweller’, presumably in reference the areal paths that planes follow). In Kukatja the agentive suffix *-pirri* ‘er’ is often used in such coinages, as in *ngantjal-pirri* (adhering:to-er) ‘magnet’, *pulpul-pirri* (cover-er) ‘blanket’, *piril-pirri* (scratch-er) ‘comb’, and so on. So also is the instrument derivational suffix *-pinti*, as in *kulinytja-pinti* (hearing-instrument) ‘tape recorder’. In Nyangumarta the instrument suffix *-pinti* seems to be used more frequently, some examples of its use being: *ngarnka-pinti* (beard-instrument) ‘razor’, *juju-pinti* (head-instrument) ‘comb’, and *nyikarra-pinti* (lower part of body-instrument) ‘petticoat’. Many such coinages exist in Warrwa with the agentive suffix *-kurru*, including *jub-jub-kurru* (cut-cut-er) ‘scissors’, *burr-kurru* (brum-er) ‘car’ (referring to the ‘brumming’ noise made by a car), *bany-bany-kurru* (bang-bang-er) ‘gun’, *kurndu-kurru* (carry:on:shoulders-er) ‘saddle’, and so forth. Terms for some introduced animals are also formed in this way, for instance, *maaya-kurru* (bleat-er) ‘goat’.

Some terms for items of clothing are also coinages; these are usually based on the term for the part of the body that the clothing item is most closely associated with. In Kukatja, *ngamarna-pirri*, from *ngamarna* ‘breast’ plus *-pirri* ‘er’ denotes ‘bra’ (an almost identical coinage exists in Walmajarri), and *tjina-pirri* from *tjina* ‘foot’ plus *-pirri* ‘er’ refers to ‘shoe’ or ‘boot’. Nyulnyul shows some interesting terms for items of clothing and bodily adornment constructed from prefix-taking nouns referring to body parts (see §7.3), followed by an associative derivational suffix:

<i>-alm-ird</i>	-head-ASSOC	‘hat’; <i>ngalmird</i> ‘my hat’, <i>nyalmird</i> ‘your hat’, <i>nalmird</i> ‘his/her hat’, etc.
<i>-m-ingid</i>	-eye-ASSOC	‘glasses’; <i>ngimingid</i> ‘my glasses’, <i>nyimingid</i> ‘your glasses’, etc.
<i>-marl-ingid</i>	-arm-ASSOC	‘bandage’; <i>ngamarlingid</i> ‘my bandage’, etc.
<i>-imbal-ingid</i>	-foot-ASSOC	‘boot, shoelace’; <i>ngambalingid</i> ‘my boot’, etc.
<i>-imbal-ird</i>	-foot-ASSOC	‘shoelace’; <i>ngambalid</i> ‘my shoelace’, etc.

Occasionally a new word is coined from an English borrowing by combining it with a morpheme from the traditional language, as in Kukatja *mitjurru-pirri* (measure-er) ‘ruler, tape measure’, and *kitji-watji* (kiss-possessor) ‘lover’ (from teenage girl’s vocabulary).

New words are sometimes only partly analysable. They may involve a nominal derivational suffix attached to a form that is not identifiable as a word in the language. These are sometimes called CRANBERRY-FORMATIONS, because they are like the English term *cranberry*: a cranberry is a type of berry, which fact is represented in the ending *berry*; but *cran* has no meaning in modern English. A cranberry-formation in Warra is *jangkurru* ‘hat’, which apparently involves the agentive suffix *-kurru* ‘-er’ (see earlier), but *jang* has no meaning today; another is *bulkurru* ‘blanket’, involving the same suffix, this time attached to the meaningless form *bul*.

### 9.3.4 Terms for ‘policeman’

Terms for ‘policeman’ are among the most varied and interesting in terms of the processes involved in their construction, and are often highly indicative of the problematic relations between the police and Aborigines in the past and present. All three processes identified above are attested.

The most common English borrowing is from the word *policeman*, as in Ngarinyin *bolidjman*. Meaning extension is illustrated by the common Walmajarri term for ‘policeman’, *limba*, which designates a type of fly that hovers around and suddenly dives in to bite. This term has been borrowed into most languages spoken in Fitzroy Crossing – including Kriol – and is today the most commonly used term for ‘policeman’ in these languages. Other existing terms whose meaning has been extended to cover ‘policeman’ include *linyju* ‘sour, bitter, salty’ in most Nyulnyulan languages, and *wirti(r)l* ‘fierce, severe-looking’ in Karajarri.

An example of a term created using the grammatical resources of a language is Wunambal *yirrkalngarri* from *yirrkal* ‘rope, chain’ plus the suffix *-ngarri* ‘with, having’ – thus ‘(those) with ropes or chains’ – recalling the not too distant past when the police chained up suspects and witnesses alike for transportation to the towns. Similar formations include: the widely cited Jaru *yawadaro wainowadyi*, wrongly analysed as horse-having chain-having ‘the chaining horseman’ – really *yawarda-yaru wayirn-u-waji* (horse-with tie:up-INF-er) ‘the tying-up horseman’; Kukatja *wayin-watji* (chain-possessor); Gooniyandi *mirnmirdgali* (tie:up-tie:up-er); Miriwoong *jendoo-ba-ng* (string-with-MASC); and Ngarinyin *irrgal-nangga* (rope-pertaining:to).

Yawijibaya *mamalinyagarra* ‘policeman’ may be a cranberry-formation, involving the pan-Kimberley comitative *-ngarri*; the remainder of the term is not identifiable. In just a few cases the word for ‘policeman’ appears to be a complete invention, as seems to be the case for Gooniyandi *yilbaya* ‘policeman’.

### 9.3.5 *Variation over time*

Over the past hundred and twenty or so years of contact a number of changes have occurred in the terms used for introduced items: some early forms have gone out of use, and have been replaced by new ones. Today there is a small set of pan-Kimberley terms for the most common introduced items: almost everywhere *gardiya* ~ *kartiya* is the most commonly heard term for ‘white person’, *bulumani* ~ *pulumani* for ‘cattle’, and *yawarda* ~ *yawarta* for ‘horse’. These have replaced earlier forms of more restricted distribution, that are now rarely used.

One explanation for this state of affairs is sociolinguistic: with the emergence of various Aboriginal languages as lingua francas in the early to mid-twentieth century, the terms in these languages would have become widely known and used. Walmajarri was for a time a lingua franca in Fitzroy Crossing region, and it is doubtless because of this that the Walmajarri term *limba* ‘policeman’ has such a wide currency.

This is, however, only part of the story. According to two knowledgeable Gooniyandi speakers, the ‘received’ or ‘correct’ Gooniyandi terms for some introduced items were not the first terms employed. They informed me that the earliest words for ‘horse’ were *thiminyjangarri* ‘spirit of dog’ and *marrimbala* ‘grass country devil’, reflecting the belief that horses were manifestations of the spirit world. The earliest term for ‘white person’ was *glimboorrngarnanyi* – literally ‘dwellers of the long grass’ – which also suggests associations with the spirit world. Replacement of these terms by *dimana* (a widespread term of unknown origin) and *thiwa* ‘red’ (referring to the pinkish colour of white people), suggests, according to these two men, naturalisation of the introduced items and a correct understanding of them.<sup>3</sup>

## 9.4 Number words

As is well known, mathematics was not well developed in Aboriginal cultures, and Aboriginal languages generally have few terms for numbers. As Dixon puts it:

The one obvious gap in Australian vocabularies is the lack of any system of numbers. It is usually said that there are only numbers ‘one’, ‘two’, ‘several’ and ‘many’; some languages appear also to have ‘three’, although this is frequently a compound form.

(Dixon 1980: 107–8)

(Blake 1981: 3–4, 33 and Yallop 1982: 145 make similar remarks.) As this quote suggests, many languages do not have a term for the precise number ‘three’; rather, they have an imprecise term meaning ‘a few’ or ‘several’ – that is, three or so.<sup>4</sup>

Before we discuss the words, a few clarifying remarks are in order. Lack of words for numbers in Aboriginal languages does *not* imply that the speakers were



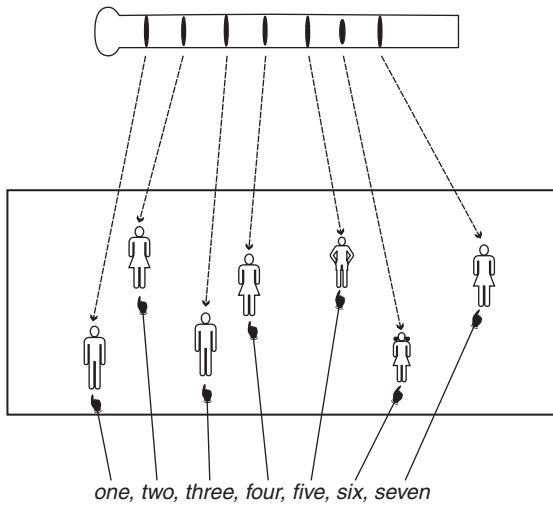
unable to refer to or conceptualise larger numbers of things, or that they could not distinguish between say forty and forty-one objects, or that they were uninterested in quantities or numbers of things. Other cognitive processes and semiotic systems were in fact employed. Thus, tally sticks were widely used to record numbers of days until a ceremony, and fingers and toes were widely used to represent both exact and approximate numbers of objects. Comparison of the number of objects in two piles can be effected by methods other than counting, for instance, by pairing off.

That numbers of things, especially of people, were important can be seen from their frequency of specification. In a small corpus of Gooniyandi texts amounting to about 25,000 words, *yoowarni* 'one' occurred 116 times, that is, with a frequency of about one in 215 words; by comparison, a corpus of about eight million words in English revealed a frequency of one in 512 words for *one*. Similarly, *garndiwirri* 'two' was three times more frequent in the Gooniyandi corpus than *two* in the English corpus (one per 284 words vs one per 890 words); *nga-rloo-doo* 'three, few' was four times as frequent as *three* (1:423 vs 1:1601); and *garndi-wa-ngoo-rroo* 'many' over three times as frequent as *many* (1:390 vs 1:1381). This usage data hardly suggests lack of interest in number!<sup>5</sup>

What is fundamental to processes of tallying and finger-and-toe representations is the notion of one-to-one correspondences between the members of two groups of objects, the objects to be quantified and their representations by marks or body parts. The items of the second set stand for those of the first, and provide a stylised representation that permits an understanding of their numerosity. The important point is that tally marks or fingers and toes separately represent things; they collectively represent the entire set of things. The number of objects can be perceived from a set of tally marks; however, a set of tally marks is not a sign whose meaning is a number. The step of symbolising numbers comes about when an arbitrary symbol stands for the number—quantity, and not for the entities whose numerosity we are interested in. The words for 'one', 'two', 'three, a few', and 'many' count as number symbols, even if only two are exact!

One type of one-to-one correspondence is particularly highly valued in Western culture: the one-to-one correspondence between a set of objects and an ordered set of words. This characterises the process of counting: one counts objects by establishing such a correspondence by sequentially ranging over the objects and a special set of words that are enumerated in a prescribed order. When the final object is associated with a word, that word, by virtue of its position, specifies not just the place of the final object in the count-sequence, but also the numerosity of the set of objects. Figure 9.1 illustrates graphically the two processes, counting and tallying.

There is no evidence that the small sets of number words in Australian languages were used for counting in the sense discussed earlier. I have never encountered or heard of a speaker of an Aboriginal language uttering the words 'one', 'two', 'three, few', 'many' in sequence in order to determine numerosity. You



*Figure 9.1* Comparison of processes of tallying and counting. (a) In tallying the individuals of the set, a one-to-one correspondence is set up between the individuals and tally marks; each tally mark is associated with an individual. (b) In counting, a one-to-one correspondence is set up between the individuals and an ordered sequence of words. The final word in the sequence represents not just the position of the final individual in the count-order, but also the numerosity of the set; this is possible because each word is a symbol for a number. Nothing in a tally-mark system symbolises a number; the set of tally marks serves as a representation of the set of items, facilitating comprehension of its numerosity.

do not need to employ counting to determine that there are one, two, or three things: this can be seen at a glance, by a cognitive process referred to as SUBITISING. The subitising limit is around five, and to get an exact number for a set with more than this number of objects requires counting or a more advanced conceptual tool. The four basic number words typical of an Aboriginal language can thus be applied by subitising; counting is not required.

Some languages had more extensive systems of number words. Gurindji had words for numbers between one and fifty, a selection of which are shown in Table 9.1. As John Harris explains,

The old people were able to explain to McNair [a linguist working on Gurindji] some of the circumstances under which the number system was used. Hunting was one context. Another was that it was used to count the number of warriors who went out to fight and the number who returned.

(Harris 1982: 169)



Table 9.1 Some Gurindji number words

English	Gurindji	English	Gurindji
1	<i>panturru</i>	12	<i>yanu</i>
2	<i>yurr</i>	15	<i>winimarl</i>
3	<i>kankunya</i>	18	<i>yirlji</i>
4	<i>parnti</i>	20	<i>yawarra</i>
5	<i>ngarra</i>	25	<i>marla</i>
6	<i>karni</i>	30	<i>ngarlka</i>
7	<i>yama</i>	35	<i>yawarta</i>
8	<i>murru</i>	40	<i>panana</i>
9	<i>tulu</i>	45	<i>kalijpa</i>
10	<i>ngamirri</i>	50	<i>lurr</i>

Source: Harris (1982: 169).

Although the exact details of how this system was used are not known, it seems likely that for it to work effectively would require that the words come in a definite sequence reflecting their numerical values, and that they were assigned in a one-to-one fashion to the referent set – that is, that they were used in counting. Interestingly, this system co-existed with a standard four-term system: *jintaku* ‘one’, *kujarra* ‘two’, *murrkun* ‘few’, and *jarrwa* ‘many’, which was presumably used in other contexts.

That the standard Australian system of number words had just four terms does not mean that there were no other linguistic means of denoting numerosities. Sometimes terms were combined: Gooniyandi speakers sometimes specify ‘four’ by *garndiwirri garndiwirri* ‘two two’, ‘five’ by *garndiwirri garndiwirri yoowarni* ‘two two one’, less often by *ngarlloodoo garndiwirri* ‘three two’. The same thing has been reported in many other Australian languages. How frequent such expressions were in everyday speech – as distinct from elicitation sessions with linguists – is not known; my own corpus of Gooniyandi texts shows scarcely any examples.

Another linguistic means of extending numbers was by using the term for ‘hand’ to cover the number ‘five’.<sup>6</sup> We find examples of this in Gooniyandi: the term *marla* ‘hand’ or *ngirndaji marla* ‘this hand’ can be used to designate ‘five’; ‘ten’ can be referred to as *garndiwirri marla* ‘two hands’.

The words for ‘one’ and ‘two’ in Kimberley languages are generally single morphemes. ‘Three, a few’ is also usually a single morpheme, though occasionally it is a complex form, as in Nyikina *kujarra layan* and Warrwa *kujarra layina* – *kujarra* is the word for ‘two’ in both languages, while the second word is presumably cognate with Warrwa *layi* ‘alone, single’.

I have suggested that words in Australian languages translating ‘one’, ‘two’, ‘three, a few’, and ‘many’ are genuine number words, in the sense that their meanings involve as a core and essential component the specification of number, exact

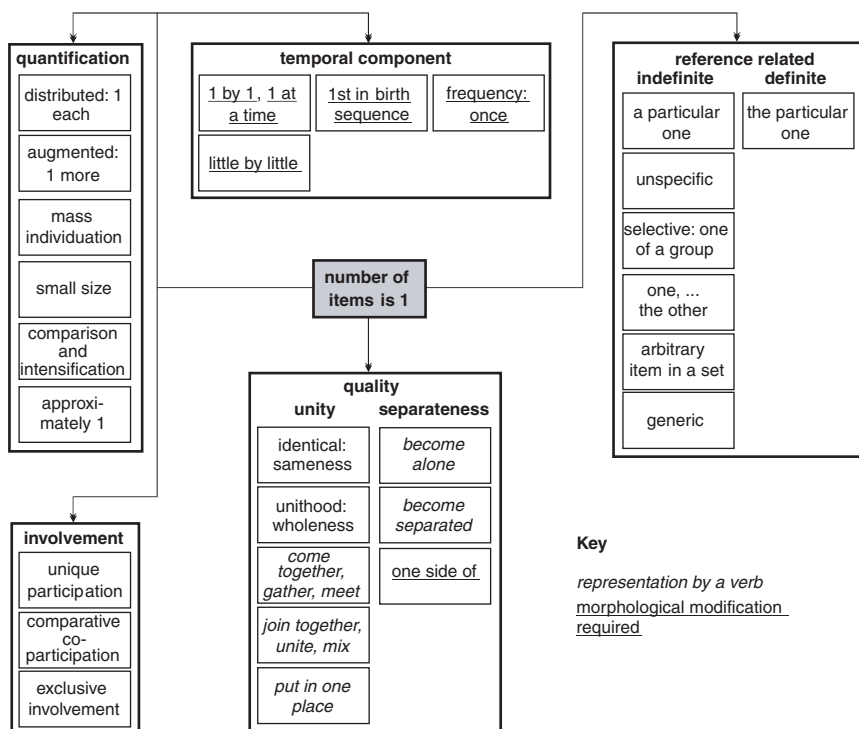


Figure 9.2 Schematic representation of senses of 'one' in Australian languages.

or approximate.<sup>7</sup> They can be used in a variety of other ways, with a variety of senses, while still conveying number specification. I conclude the treatment of number words with a discussion of the range of senses of the word for 'one'. Figure 9.2 provides a schematic representation based on an investigation of 'one' in a number of Australian languages.

According to this diagram, central to the word 'one' is the number concept, that a single entity is being referred to: this sense is exhibited in every language. Five other types of meaning can be conveyed, depending on the grammatical environment in which the word occurs, and the wider context of utterance; not all of these senses are present in each language. Let us briefly examine the five main sets of senses.

First, for the range of senses grouped together in the top-left-hand box under the label 'quantification' the primary sense remains one of quantity, but with slight nuances of meaning. Thus the distributed sense 'one each' means that one thing of a particular type is distributed among a number of individuals, as in, for example, *They dug it with one shovel each*. Here the whole set is not being counted, only a relevant part of it. The word 'one' can also be used in reference to

something of small size:

- (9.4) *ginyinggarra lool i-yard-in aman i-n-ngoorloo-n*  
 then go:in 3minSUB-go-PRES little 3minSUB-throw-PRES  
*arinyj-angarr goolboo*  
 one-only money  
 ‘Then he throws in a little, only one (small) amount of money.’ Bardi

Second is a set of senses involving a temporal component, such as frequency and position in birth sequence (rare); these always involve morphological modification of the word. Another temporal sense is ‘one at a time, one by one’, or ‘little by little’; this is usually associated with reduplication of the ‘one’ word, as in (9.5).

- (9.5) *yoowarni yoowarni/ dardigirr-mi-wirr+r+a/* Gooniyandi  
 one one understand-IT-PRES/3plSUB+3sgOBJ+A  
 ‘They understood (English) little by little.’ or ‘They understood (learnt) English one (word) by one (word).’

Third is a set of reference-related senses, where the word ‘one’ is used in a determiner-like way, usually like an indefinite determiner (example (9.6)), occasionally like a definite determiner (example (9.7)).

- (9.6) *maja-yoo miga-li+mi-nhi/ yoowarni* Gooniyandi  
 boss-DAT say-1sgSUB+MI-3sgOBL one  
*ward-ja-wi+l+ø+a binarri/*  
 go-SUBJ-FUT+1sgSUB+3sgOBJ+A knowledgeable  
 ‘I said to the boss, “I would like to take a knowledgeable man with me.”’

- (9.7) ... *babligan maja/ miga-ø+mi-ngarra/ nyamani-ya* Gooniyandi  
 publican boss say-3sgSUB+MI-1sgOBL big-LOC  
*yood-b+ø+a/ niyaji yoowarni bayhorse/*  
 put-FUT/2sgSUB+3sgOBJ+A this one bayhorse  
 ‘The publican said to me, “Put it in the handicap, the bayhorse.”’

Fourth, ‘one’ can be used to specify the unique or exclusive involvement of something in an event, as in (9.8).

- (9.8) *igi marriyali ngirnda nyamani girli kand nganyi-ngga*  
 no mother-in-law this big same can’t I-ERG

*yoowarni-ngga ngab-bi+l+ø+a/*

Gooniyandi

one-ERG eat-FUT+1sgSUB+3sgOBJ+A

‘No, mother-in-law, it’s too big. I can’t eat it alone.’

Fifth, ‘one’ exhibits various senses relating to the qualities of unity (sameness or wholeness) and separateness. In some languages ‘one’ can be verbalised, resulting in senses such as ‘come together’, ‘join together’, ‘become separate or scattered’ and so forth. The following example illustrates the ‘sameness’ sense:

- (9.9) *yoowarni-ngga-nyali gardiya, laja-ng+a-ngarra,* Gooniyandi  
 one-ERG-REP white:person ride-3sgSUB/3sgOBJ+A-1sgOBL

Nid Galin-*ngga*,  
 Ned Collins-ERG

‘The same white person rode my horse for me, Ned Collins.’

Similar – though somewhat reduced – ranges of senses can be found for the other three number words. We do not discuss them here, the discussion of ‘one’ being sufficient for illustrative purposes.

## 9.5 Language and space

Place is of enormous significance to Aboriginal people of the Kimberley, as elsewhere in Australia. Individuals have strong ties to certain places, to particular stretches of land, including their conception site (often the place where their father discovered their spirit) and/or their birth site. As members of particular social groups individuals possess or have certain rights to specific territories, ratified through performance of rituals and by Dreamtime charter, expressed through myth and ritual. The land is dotted with sacred sites, along the tracks that Dreamtime heroes followed, at which significant events occurred. Travel sequences, describing the movement of persons from named place to named place, form the backbone of sacred mythology, and many other types of narrative. Indeed, it has been argued that naming the place at which an event in a narrative occurs has an authorising function, attesting to the validity of the utterance.

On a more mundane level, place affects many aspects of daily life, including sleeping and residential arrangements, which may reflect relative locations of people’s country. Moreover, Aboriginal people everywhere have an intimate knowledge of the country in which they live, and have sophisticated means of finding their way through territory they may not have visited for many years.

Kimberley languages have rich sets of adverbials used in specifying spatial relations. These can be divided into two major groups: ABSOLUTE, which invoke a system of fixed co-ordinates determined by the world; and RELATIVE, that describe the relative arrangement of things from some point of view, without invoking

a fixed co-ordinate system, specifying them in terms of concepts such as 'behind', 'in front of', and 'middle'.

Absolute spatial adverbials impose a system of coordinates on three-dimensional space, specifying vertical or horizontal angles. Vertical angles employ a two-way contrast between up and down. Horizontal angles are specified in terms of either the cardinal directions north, south, east, and west, or the direction of flow of water, upstream or downstream. Some languages – for example, Bunuban languages – have both systems; others, have just one: Nyulnyulan languages have just cardinal directions, whereas Jaminjung use only the water-flow system – though some older speakers recall (but don't use) cardinals as well. Finer distinctions are not usually made; it is unusual to compound terms for greater precision, as in English *south-south-east*. Hence cardinal direction terms have wide ranges of applicability. The term for east, for instance, might be used for any angle in the quadrant from north-east to south-east. Greater precision might be achieved by gesture, or by specifying a named destination.

Absolute terms frequently come in different forms according to whether location or direction of motion is being specified. Thus, Gooniyandi cardinals and vertical direction adverbials all come in four forms: (i) location, specifying the location of an object in terms of a cardinal direction from some reference point, often the speaker's position; (ii) side/end, specifying a spatial part or aspect of a body (usually topographic) in terms of the cardinal direction the part faces (as in 'north side of a hill'); (iii) direction from, specifying direction in terms of which cardinal point or region it emanates from; and (iv) direction towards, specifying which cardinal point or region it is directed towards.

Figure 9.3 represents diagrammatically the cardinal system of Gooniyandi. Each directional adverbial covers roughly a quadrant; however, within this domain some directions seem more prototypical than others. The outer circle of dots represents localities in respect of a speaker whose position is marked by X. The largest dot represents approximately the prototypical cardinal direction; the dots get smaller as we move further away from the prototypical directions, indicating that the directions are becoming successively less 'good' instances of the cardinal direction. Small gaps have been left between the quadrants on the hunch that these might either not be labelled by a cardinal at all, or might be alternatively designated by two.<sup>8</sup> The arrows in the upper figure represent the direction towards and direction from forms; their length is intended to indicate the goodness of fit to the prototypical cardinal direction. These can be used in specifying direction of motion, or the direction in which an event was oriented, for instance, the direction in which a person gazed. The lower drawing in Figure 9.3 shows the 'side' forms: these terms are used in reference to the aspects or faces of a physical entity such as a house, hill, waterhole, and so forth, that are oriented towards the cardinal direction, for example, 'the northern side of the house'.

The water-flow adverbials in Gooniyandi, by contrast, come in two different forms, one specifying an aspect of a body (upstream side vs downstream side),

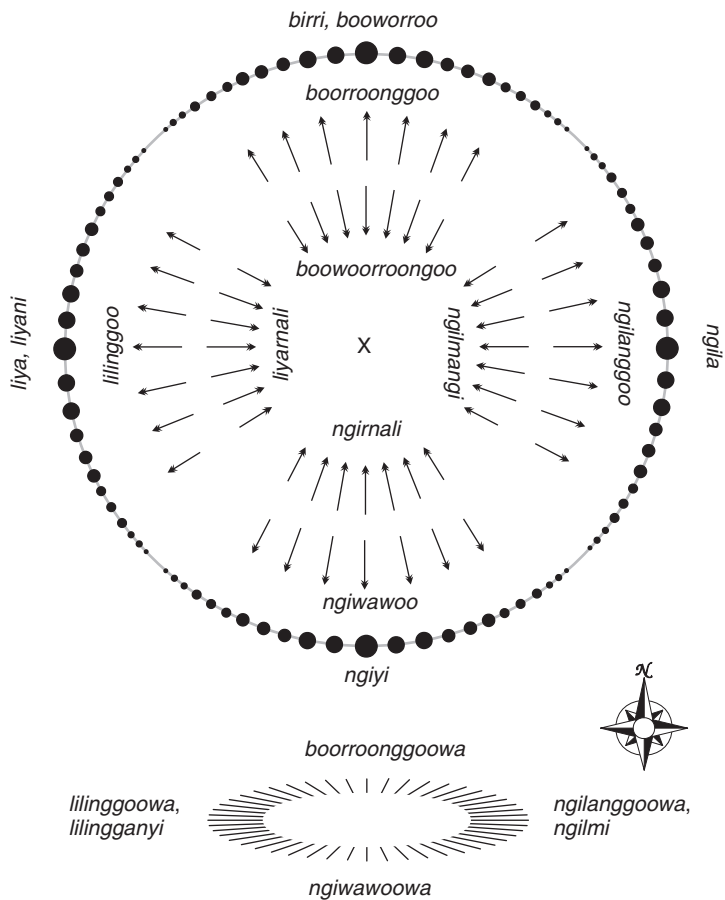


Figure 9.3 Gooniyandi cardinal adverbials.

while the other specifies either location or direction. Water-flow systems generally do not distinguish formally between location and direction.

These absolute systems are frequently used in speech in Kimberley languages. This is particularly so in regard to spatial relations on geographical or topographical scales, such as specification of direction of travel, or location of objects that are not within immediate proximity. For instance, in giving directions to a place absolute systems of cardinal directions are almost certain to be deployed. They are also used in the context of giving immediate directions of travel, for instance, specifying which direction to turn when travelling in the bush, or at a street corner.

In some Kimberley languages the absolute systems are also used in the specification of spatial relations on personal scales. This seems to be the norm in

Western Desert varieties, where it even applies to the body, and paired body parts are regularly distinguished according to their absolute orientation. This is illustrated by the following Kukatja example:

- (9.10) *yapurra-karti marrka, wiya takal-tju-rra. kakarra-karti* Kukatja  
 west-side hard no click-put-CONT east-side  
*palya pali-la.*  
 good press-CONT  
 ‘[My] west nostril is firm, it doesn’t click. [My] east [nostril] is good.’

I have not observed such uses of absolute relations in Gooniyandi, Nyulnyul, or Warrwa – which is not to say that they are impossible, only that they are not common.

The relative, body-centred system of left vs right seems never to be extended beyond the body in Kimberley languages; it may be used to distinguish one hand or foot from another, but is never used in either giving directions, or locating things even beside a person. However, unlike some Australian languages that lack relative terms altogether – for instance, Guugu Yimithirr (north Queensland) – most Kimberley languages have smallish sets of relative terms, used especially for the description of relations between things that are in close proximity to one another.

At least when speaking of geographical and topographical phenomena speakers of Kimberley languages must attend to absolute coordinates, continually updating these in accordance to their present locations. Moreover, they require elaborate mental maps of the countryside so as to compute the absolute directions between places mentioned in narratives. For instance, in the Jandamarra text (§11.2.3) the speaker reveals his computation of the cardinal direction between Windjana Gorge and Tunnel Creek (east), between Tunnel Creek and Oscar Range Station (south), and between Tunnel Creek and an unnamed location (west). Except for the latter, these are different from the cardinal directions to the places from the narrator’s actual location.

Not only this, but speakers also need to simultaneously attend to topographical features, including the relative heights of places – the vertical cardinals are used in reference to the ground, when height differences exist, even relatively minor ones that pale into insignificance in comparison to the horizontal displacement. And in languages with water-flow systems, speakers must keep track of the local lie of the land.

In order to speak Gooniyandi like a native speaker one needs to be able to perform such computations of orientation and direction on-line, just as to speak English one needs to be able to compute spatial relations with respect to one’s body. This suggests that when speaking, certain differences in language structure force attention to different aspects of the world, and require different cognitive processes. These differences may extend beyond mere thinking for speaking. Discussing Guugu Yimithirr, Levinson (1997) argues that even when not speaking

speakers think in ways consistent with the cognitive processes required for speaking: that computation of absolute direction and orientation is not only for speaking, but impacts on other aspects of spatial behaviour. Quite possibly something similar holds true for Gooniyandi people, who need to simultaneously track features of the topography of the countryside.

## 9.6 Ethnoscience

The term ethnoscience refers to the structured body of knowledge of a people concerning the physical universe and the biological world. We could speak more precisely of ethnophysics, ethnobotany, ethnophysiology, ethnomathematics, and so forth. Language plays a crucial role in the codification of these kinds of knowledge. Conversely, these systems of knowledge can impact on language, especially on the vocabulary and word meaning and use in discourse.

Our knowledge of Kimberley Aboriginal ethnoscience is minimal. The most significant and exciting investigations are Fr. Anthony Peile's studies of Kukatja ethnobotany (Peile 1996) and ethnophysiology (Peile 1997).<sup>9</sup> Unlike most excursions into ethnobotany, Peile's goes beyond issues of naming, taxonomic classification (i.e. classification into genres, species, etc.), and medicinal use of plants; he also addressed questions of plant physiology and growth – how these are conceptualised by Kukatja people. These issues were likewise of concern to him also in connection with the human being. He was mindful of the role of language, and the need to understand the language in order to understand these knowledge domains, his point being that the language itself structures the knowledge domain, and an investigation conducted in English would necessarily be inadequate.

An important aspect of Peile's work is his detailed encyclopaedic entries for Kukatja terms relevant to the two domains. This can be illustrated by the entry for *kalyu* 'water' in his ethnobotany article.

#1 *kalyu*: water; moisture; sap; nectar; honey-dew

Water comprises a large proportion (75–90%) of the total weight of ordinary plants. All vacuoles are chiefly water, all walls are wet with water; it serves as a raw material for food manufacture and for conducting essential elements throughout the plant... The Kukatja recognise that water plays an important role in the growth of plants. In fact according to their point of view, water, wind and the heat of the sun are the only things necessary to keep a plant alive. Water is absorbed into the roots of a plant during the Wet Season (it is not therefore a continual process); it is stored there and rises through the stem to the fresh, green stems and into the leaves. The greenness of a plant is alone due to the presence of water. By keeping a plant continually moist, water maintains it in a healthy and cold condition. As pointed out elsewhere (see *yalta*, # 67 ['cold'-WM]), coldness is equated with being healthy.



But on the other hand, excess water, far from nourishing a plant, will burn and dry it out, causing a plant to die. This occurs when there is deep water over the ground from overflowing lakes and claypans after continuous rains during a heavy wet season...

- (1a) *Wila-tjanu* *katira* *maru-tjuninpa*  
 flowing/underground:water-from having:brought down-putting...  
*warta puyura tjarlurnu lamparn-tjanu warta.*  
 plant fast made:big small-from plant  
 'As a result of bringing water [down into its roots], the plant is made to grow quickly from being a small plant.'...

- (1b) *Kalyu-tjanu tjarlu-rrinpa warta yakuri-rrinpa.*  
 water-from big-becoming plant green-becoming  
 'A plant becomes big and green as a result of water.'

- (1c) *Kaninytjarra kalyu warta, kaninytjarra kalyu warta;*  
 inside water plant inside water plant  
*pakarninpa tjarlu-rrinpa, kalyu-kurlu yumu pakarninpa.*  
 arising big-becoming water-with just arising  
 'Water [is] inside a plant. The plant rises up and the plant grows... It rises up just with water.'

- (1d) *Tjuku-tjuku purrpulyu pakala kalyu-rrinpa.*  
 small-rdp green shoots arise water-become  
 'Very small fresh green shoots spring up and become moist.'

- (1e) **Any kind...** *warta waste 'em marra kalyu.*  
 plant makes water  
 'All kinds of plants waste water.'

(1e) is a reference, not only to the sugary secretion poured out from the nectary in a flower, but also to the secretion or excretion of water from cells called 'hydathodes' in some plants. It is believed these extrafloral nectaries attract small insects and so keep them away from the flowers or supply food to various insects which are of use to the plant in that they attack and destroy others which are injurious... The Kukatja belief concerning these watery secretions is similar to their belief regarding sweat and perspiration in humans and animals. This is 'wasting from hot' as someone once commented to the writer.

(Peile 1996: 74-5)

The linguistic and ethnographic importance of such information is obvious. Aside from its relevance to the compilation of dictionaries and encyclopaedias, such detailed explanations of the uses of everyday terms can provide useful insight into – and motivation for – changes in word meaning over time, some of which might seem quite unusual to speakers of English, and members of other cultures. For instance, the association between *yalta* ‘cold’ and ‘health’ is a feature of Kukatja culture not shared by European cultures. It could conceivably form the basis for shift in meaning of the word over time to ‘health’; and knowledge of this association might provide the necessary supporting evidence for the historical linguist who finds apparent cognates in two languages, one meaning ‘cold’, the other ‘heathy’.

### Further reading

General works on Australian languages such as Dixon (1980), Blake (1981), and Yallop (1982) all have chapters on vocabularies of Australian languages. The following deal in greater depth with meaning extensions: Walsh (1995) on metaphor in Murrinh-Patha; Evans and Wilkins (2000) on extensions of ‘ear’; and Evans and Wilkins (2001) on extensions of ‘person’. Allan and Burridge (1991) treats euphemism and dysphemism generally, with some examples from Australian languages.

Various works discuss terms for new items and concepts in traditional languages, including Worms (1938) (mainly Dampier Land languages) and Simpson (1985) (Warumungu). Three recent articles discuss the ways particular introduced items have been accommodated: Walsh (1992) on ‘horse’, Nash (1997) on alcohol (the terms are published in an appendix to Brady 1998), and McGregor (2000a) on ‘policeman’. Blake (1981: ch. 9) looks at how English has met the demands of the Australian environment, and lists a considerable number of borrowings from Aboriginal languages.

Various articles and books discuss number words and concepts in the world’s languages including: Menninger (1969) (the classic work), Hurford (1987), Schweiger (1997), and Gvozdanovic (1999). The paucity of number words in Australian languages is widely remarked on – Harris (1982) refutes this, and mentions languages with more elaborated systems – and much ink has been spilt on the pros and cons of cognitive implications; see Yallop (1987). Stokes (1982) and Sayers (1982) discuss Australian Aboriginal mathematical concepts and educational implications. Dehaene (1998) and Butterworth (1999) deal with psychological and neurological aspects of the number sense; I highly recommend both.

The linguistic representation of spatial relations has attracted much attention in recent years – see, for example, Bloom *et al.* (1996), Pütz and Dirven (1996), and Senft (1997). Levinson and Wilkins (forthcoming) contains sketch grammars of space in a number of languages, including three Australian languages (Arrernte, Jaminjung, and Warrwa); Levinson (1997) deals with spatial relations in Guugu Yimithirr (Queensland). The idea that different styles of thinking for speaking may be required for different languages is a version of the Sapir-Whorf hypothesis, a much-discussed and highly contentious hypothesis about the relation between language and thought associated with American linguists Edward Sapir and Benjamin Whorf (see especially Whorf 1956). On the ‘thinking for speaking’ interpretation see Slobin (1996).

## CLAUSES AND SENTENCES

### 10.1 Introductory remarks

In the previous four chapters we described the structure and meaning of words and the ways they can be put together to form phrases referring to things and events. In this chapter we look beyond words and phrases to the units that can be constructed from them to make complete utterances, CLAUSES and SENTENCES (see §5.3). The grammatical patterns and structures involved in these units are even more complex and diverse than those we encountered in the formation of words and phrases, although there are similarities, some of which distinguish Kimberley languages from languages of other parts of the continent.

The simplest complete utterances – that is, with nothing omitted – are one-word expressions uttered on their own intonation unit: these usually consist of interjections or ideophones (see §5.2). Examples of interjections used in this way in Gooniyandi are *Ba!* ‘Come on!’ (calling for joint action), *Nya!* ‘Here you are!’ (accompanying an offer), *Warriwarri!* ‘Sorry!’ (following an inappropriate utterance), *Yoowayi* ‘Yes’, and so on. An example of an ideophone used as complete utterances in Gooniyandi is [n.i:], representing the sound of something falling from a great height. Words of other parts-of-speech can also be used in similar ways, for example, *Jawandayi!* ‘Jawandi!’ (gaining the attention of a *jawandi* person). There is little to say about the structure of such one-word utterances, and they are ignored in this chapter.

Sentences are grammatical units corresponding to utterances, ignoring production imperfections such as hesitations and speech errors. They are made up of one or more clauses, smaller grammatical units that are in turn made up of phrases and words. Some of the basic properties of clauses and sentences were mentioned in §5.3, including generalisations about the ordering of items and omission of NPs; these and other observations are developed more fully in this chapter.

Like phrases, clauses in Kimberley languages can be divided into two main types, NOMINAL and VERBAL. Nominal clauses have no VP, either present or omitted, and one or more NPs. Verbal clauses have an inherent VP – that is, a VP that is essential to the construction, which is either present in it, or, if absent, has been omitted – (10.1) and (10.2) are illustrative Gooniyandi examples.

- (10.1) *ngarragi thangarndi Gooniyandi* Gooniyandi  
 my word Gooniyandi  
 ‘My language is Gooniyandi.’
- (10.2) *nayu dij-jingi ngoorndoo-ga* Gooniyandi  
 knife snap-3sgSUB/3sgOBJ/DI someone-ERG  
 ‘Someone broke the knife.’

Absence of a VP does not signal a nominal clause; like NPs, VPs can be omitted if they convey known information. This happens most often in conversational discourse; VPs are rarely omitted in narratives. For instance, the second and third turns in the dialogue of (10.3) have no VPs. VPs could however be added without affecting the meaning of the utterances – although they might sound excessively pedantic. The clauses are thus verbal. By contrast, for nominal clauses either a VP cannot be added at all (as in (10.1) ), or, if it can, a different meaning results.<sup>1</sup>

- (10.3) A: *gard-loo + ø + noo* Gooniyandi  
 hit-1sgSUB + 3sgOBJ + BINI  
 B: *ngoorndoo-ngga*  
 someone/who-ERG  
 A: *nganyi-ngga*  
 I-ERG  
 A: ‘I hit him.’ B: ‘Who did?’ A: ‘I did.’

The formal difference between nominal and verbal clauses corresponds to a meaning difference. Having VPs, verbal clauses refer to events that occur at some point in time and space, and involve things playing roles in them, as in (10.2) and (10.3); without VPs nominal clauses refer just to things, not to events that occur – nothing is occurring in (10.1). Nominal clauses are discussed in §10.2, verbal clauses in §10.3.

The ways clauses are combined to form complex sentences are numerous, and a variety of different complex sentence types can be distinguished according to the different ways of linking them. The links can be specified by conjunctions, postpositions and other enclitics attached to VPs, and special verbal forms. But in many cases the links are not specified, and clauses are simply strung together one after the other, without specification of the relationship between them. Complex sentences are discussed in §10.5.

Considerations of length force selectivity of topics, and restrict the depth of coverage. Important phenomenon that we will barely touch on include: intonation (see §4.6); negation and modal qualification expressed by particles and enclitics; and grammatical constructions expressing sentence moods such as interrogative (questions) and imperative (commands).

## 10.2 Nominal clauses

As just mentioned, nominal clauses are characterised by the absence of a VP. They usually consist of two inherent NPs, occasionally just one, and rarely three. The structure and semantics of nominal clauses are fascinating topics, although they have received little attention in investigations of Kimberley languages (and indeed Australian languages generally). Mainly for this reason, the discussion of this section is largely based on languages I am personally familiar with.

### 10.2.1 Existential clauses

These are clauses that draw attention to the existence or presence of something, usually in a specific place. They normally consist of a locative-marked NP specifying the place, followed by an NP referring to the thing; occasionally the order of the two phrases is reversed. The following are illustrative examples:

- (10.4) *biliga gamba-ya/ yoonggoo nyamani girrabingarri/* Gooniyandi  
 middle water-LOC scrub big long  
 ‘In the middle of the water there is a big scrub.’

- (10.5) *wurrumbang karrambal bardangk-uk* Nyulnyul  
 many bird tree-LOC  
 ‘There are lots of birds in the tree.’

One use of existential clauses is the introduction of new characters – especially important ones – into narratives. Example (10.6) shows how the most important character in a Gooniyandi myth about fire was introduced. (The preceding text had described a situation in which lots of people were sitting around together in the cold and rain; this is what is picked up by the initial determiner *niyaji-ya* ‘there, then’.)

- (10.6) *niyaji-ya/ yoowarni lambardi yoowooloo/ yingi Jilngirndi/* Gooniyandi  
 this-LOC one little man name Jilngirndi  
 ‘At that place/time, there was one little man named Jilngirndi.’

Occasionally specification of location is absent, generally when it is obvious from context, as in (10.7), which accompanied the presentation of tobacco to the addressee.

- (10.7) *nya/ girlala ngaanggi/* Gooniyandi  
 here tobacco yours  
 ‘Here! (Here’s) tobacco for you.’

### 10.2.2 Identifying and characterising clauses

Identifying and characterising clauses involve two nominal expressions, usually NPs, juxtaposed to one another. In the first type the NPs are related by identification: the referent of one NP is identified with that of the other, as in (10.1) above, which identifies the speaker's language as Gooniyandi. Another example is (10.8), which identifies the speaker's country as Beagle Bay.

- (10.8) *ngay janijirr bur Ngarlan* Nyulnyul  
 I mine country Beagle:Bay  
 'My country is Beagle Bay.'

In characterising clauses one NP characterises the referent of the other, indicating a property (as in (10.9)), location (as in (10.10)), source (example (10.11)), something it resembles (example (10.12)), and so on.

- (10.9) *ngaju-rna mata* Warlpiri  
 I-1sgSUB tired  
 'I am tired.'

- (10.10) *arrak jungkarr walabab* Nyulnyul  
 where your son  
 'Where are your sons?'

- (10.11) *nganyi liyarnali-nhingi* Gooniyandi  
 I west-ABL  
 'I'm from the west.'

- (10.12) *bini-ningga muru sheep maniyē* Gunin/Kwini  
 he-GEN face sheep like  
 'His face is like a sheep's.'

In identifying clauses the NPs can normally occur in either order, the difference being what identifies what. Thus, in (10.8) the speaker's country is identified as Beagle Bay; had the NPs occurred in the reverse order, it would have been Beagle Bay that was identified as the speaker's country. In characterising clauses, however, the order of the two NPs is generally fairly fixed: the NP denoting the thing occurs first, followed by the NP denoting the quality, location, or whatever. The main exceptions are in questions, as in (10.10), and/or when the NP referring to the thing is added as an afterthought:

- (10.13) *joodoo/ ngarragi garingi/* Gooniyandi  
 straight my wife  
 'She is straight (i.e. of the correct subsection for me), my wife.'

Sometimes a characterising clause has an additional NP – usually in the dative – specifying the respect in which the attributed quality obtains. Thus, (10.14) specifies that the quality of being no good holds of the place in regard to dogs:

- (10.14) *ina bur arri layb kinyingk-ung* Nyulnyul  
 this place not good this-ALL  
 ‘This place is no good for these (dogs).’

Such additional NPs are most common in characterising clauses specifying mental states such as desire, knowledge, and the like:

- (10.15) *ngaju-rna ngapa-ku ngampurrpa* Warlpiri  
 I-1sgSUB water-DAT desirous  
 ‘I want water.’

- (10.16) *nyuntu-npa jaru-ku ngurrpa* Warlpiri  
 you-2sgSUB language-DAT ignorant  
 ‘You don’t know the language.’

Lacking a VP, nominal clauses cannot generally specify tense, mood, or aspect. Relative time can, however, be specified by a temporal adverbial, as in (10.17).

- (10.17) *ngindaji Janjuwa jirali* Bunuba  
 this Junjuwa before  
 ‘This used to be Junjuwa.’

### 10.2.3 Possessive clauses

Nominal clauses are also commonly used in the expression of possession. They come in two main variants. One has an NP referring to the possessor in first position, followed by a comitative PP representing the possessed item, as in example (10.18); the other has an NP denoting the possessed item in initial position, followed by a dative or genitive NP representing the possessor, as in (10.19). These translate into English as possessive clauses with *have* and *belong*, respectively. Whether the two types represent separate constructions distinct from characterising and identifying clauses is uncertain.<sup>2</sup>

- (10.18) *kaliya jurrunguny nimarrangka wanyjarri-barri* Nyikina  
 finished right:side arm one-COM  
 ‘After that (she only) had one arm, her right.’

- (10.19) *kamirri yila marnin-ji* Nyikina  
 that dog woman-DAT  
 ‘That dog is the woman’s.’ Or ‘That dog belongs to the woman.’

Both types are used less frequently in Nyulnyulan languages than other languages, and in more restricted contexts. The first type is employed almost exclusively for expressing inalienable possession, the second, alienable possession. In most other languages the association of the first type with inalienable possession is much weaker.

Some languages use other nominal clause types for expressing possession. Two are found in the Nyulnyulan family, both involving unmarked NPs, one referring to the possessor, the other to the possessed. In one type – found in Bardi, Nyulnyul, and Warrwa – a possessive pronoun intervenes between the two NPs, as in (10.20) (see §7.6.2 for a similar use of the possessive pronouns within NPs). The NP referring to the possessed item generally comes first, and the ‘belong to’ interpretation is natural.

- (10.20) *ina bur jirr kujarr wamb* Nyulnyul  
 this camp their two man  
 ‘This camp belongs to the two men.’

The other type involves in addition to NPs denoting the possessor and possessed, an intervening NP denoting a quality displayed by the possessed item, as in (10.21). A possessive pronoun may also occur immediately before the noun denoting the possessed item, as in (10.22).

- (10.21) *ginyinggi may loogal niyarra* Bardi  
 this food bad taste  
 ‘This fruit has a bitter taste.’

- (10.22) *nyoongool aamba niwandi jinarr jiidi* Bardi  
 old man long 3minOBL/EMP beard  
 ‘The old man has a long beard.’

As these examples show, this clause type seems to be limited to inalienable possessions, generally parts of the body or inherent or defining characteristics. It is attested in most Western Nyulnyulan languages and Warrwa; further afield, something similar is found in Gooniyandi, Gunin/Kwini, and Warlpiri, also for inalienable possessions.

### 10.3 Verbal clauses

Finite verbal clauses – clauses with finite verbs (non-finite clauses are excluded from the discussion of this section) – refer to events that are situated in time and space, and involve entities serving roles in them. These phenomena we refer to as SITUATIONS, maintaining a terminological difference between the referents of VPs and verbal clauses. Like the term *event*, the term *situation* invokes no implication concerning the nature of what happens – whether it is an activity, a state, a happening,



or whatever. The VP specifies the event lexically and grammatically,<sup>3</sup> while the other aspects of the situation are specified by NPs, adverbials, and various non-lexical morphemes in the clause. Our focus in this section is on the essential core of the situation that which is specified by the VP and inherent NPs.

### 10.3.1 *Grammatical relations*

Most verbal clauses have just one or two inherent NPs. In all Kimberley languages these are simultaneously referred to – CROSS-REFERENCED – by bound pronouns indicating their person, number, and grammatical role. Ignoring morphological quirks, bound pronouns usually show three distinct case-forms depending on whether the NP they cross-reference is the subject (intransitive or transitive), object, or indirect object. The NP itself often also conveys information about its grammatical role by a case-marking suffix or postposition. Languages of the Nyulnyulan, Bunuban, Pama-Nyungan, Daly River and Jaminjungan families, it will be recalled, have ergative case-markers that are attached to subjects of transitive clauses, but not to subjects of intransitive clauses or objects of transitive clauses. Worrorran and Jarrakan languages, by contrast, leave NPs in all these roles unmarked. Indirect object NPs are normally marked by a dative case-marker, sometimes by an allative.

It might be thought that in languages with ergative markers the marking on the NP is redundant, since it replicates information provided by the bound pronouns. This is not so. For one thing, if a clause has two inherent third person NPs of the same number, it will be impossible to determine from the bound pronouns which is the subject and which is the object. The information provided by marking on the NP is essential.<sup>4</sup> But there are more important reasons why the information is not entirely redundant. First, the meaning contrasts marked by the two systems do not match exactly, permitting additional distinctions to be made by cross-matching. And second, the simple contrast between intransitive and transitive clauses does not account for the full range of possibilities. As we will see, other types of clauses exist that do not involve pairing of an ergative marked NP with a subject-bound pronoun.

These considerations motivate the identification of two tiers of grammatical roles for NPs: PARTICIPANT ROLES associated with the bound pronouns; and CONNATE ROLES associated with NP marking. Three roles are distinguished on each tier, as shown in Figure 10.1; lines indicate the possible associations between roles of different tiers.

These roles are set up on the basis of linguistic form, and have been set up specifically for ergative languages.<sup>5</sup> Worrorran and Jarrakan languages lack an ergative marker, and hence an Agent role defined by ergative marking cannot be established. Nevertheless, we will assume that the two tiers of roles apply to these languages also, the connate roles being definable by other grammatical criteria. The usefulness of the system will emerge in the next section when we describe clause types.

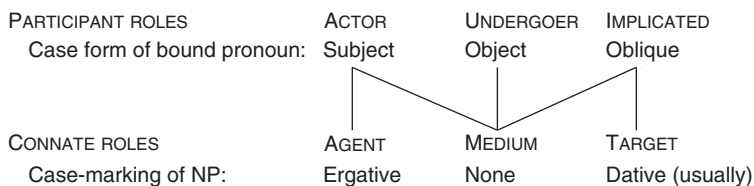


Figure 10.1 The two tiers of grammatical roles for inherent NPs in ergative languages.

Participant roles correspond fairly much to the traditional categories of subject, object, and indirect object. The point of the new labels is to highlight the fact that they are not just formal grammatical categories but also express meanings. These can be roughly specified as follows. The ACTOR represents something engaging in or enacting the situation, whether deliberately or accidentally. The UNDERGOER designates a thing that suffers or undergoes a goal-directed action aimed at it; action is directed to it, and successfully impinges on it. In (10.2) the knife suffers some action directed at it by an unknown person; it is thus represented as an Undergoer, while the unknown person is Actor. The IMPLICATED represents something, usually a person, indirectly or tangentially involved in the situation; they need not be impinged upon by the action, or suffer from it. The NP cross-referenced by the oblique pronoun in (10.23) serves in the Implicated role: the child is involved tangentially in the situation; there is no suggestion that they are actually impinged upon – the child could have been sought unsuccessfully.

- (10.23) *nganyi-ngga jiginya-yoo moow-l + a-nhi*                      Gooniyandi  
 I-ERG            child-DAT    seek-1sgSUB + A-3sgOBL  
 'I looked for the child.'

Connate roles are also meaningful, and not purely formal grammatical categories. The AGENT represents something that engages in an activity directed at another thing, that is, in activity that is not located entirely in itself, but extends outwards towards something else. The MEDIUM represents the locus of actualisation or coming to being of the situation: something from which no further outwardly directed action emanates; it is a terminal point of action. Again in (10.2) the action clearly begins with the unknown person who directs action to another thing, the knife, which is where the action terminates. The NP referring to the person is thus represented as Agent, that denoting the knife as Medium. Finally, the TARGET represents something towards which action is directed, but that is not the locus of coming into being of the situation; the action vector does not necessarily reach it. Again in (10.23) the NP marked by the dative *-yoo* is a Target of the action, not a locus of its coming to being.

### 10.3.2 Major transitivity types

All languages, it seems, distinguish between intransitive and transitive clauses. These can be defined as consisting of an Actor/Medium (intransitive) and an Actor/Agent and Undergoer/Medium (transitive). We illustrate with Warrwa examples:<sup>6</sup>

- |         |                             |  |        |
|---------|-----------------------------|--|--------|
|         | Actor/Medium                |  |        |
| (10.24) | <i>juwa jawu mi-n-j-an</i>  |  | Warrwa |
|         | you swim 2minSUB-TR-say-IMP |  |        |
|         | ‘You are swimming.’         |  |        |
- 
- |         |   |              |                  |
|---------|---|--------------|------------------|
|         | Actor/Agent                               |              | Undergoer/Medium |
| (10.25) | <i>yila-na ø-na-ng-ka-ny-ø</i>            | <i>warli</i> | Warrwa           |
|         | dog-ERG 3minSUB-TR-nasal-carry-PA-3minOBJ | meat         |                  |
|         | ‘The dog carried the meat.’               |              |                  |

The two clause types in Warrwa and other Kimberley languages are much as expected. Intransitive clauses refer to situations of inhabitation, being, becoming, happening, state, motion, vocalisation, bodily behaviour, emotion, etc.; transitive clauses cover induced motion and states, impact and violence, perception, cognition, emotions, effective communication, bodily moves, and so on.

All Kimberley languages have in addition at least one other clause type. A commonly found third type resembles transitive clauses in having two inherent NPs, but differs in terms of their roles: one serves as Actor/Agent, the other as Implicated/Target. We will refer to these as MIDDLE clauses. All languages with ergative markers have this type of clause; examples are (10.23) and the following:

- |         |                                       |                 |                   |          |
|---------|---------------------------------------|-----------------|-------------------|----------|
|         | Actor/Agent                           |                 | Implicated/Target |          |
| (10.26) | <i>ngarrka-ngku ka-rla</i>            | <i>karli-ki</i> | <i>warri-rni</i>  | Warlpiri |
|         | man-ERG CAT-3sgDAT                    | boomerang-DAT   | seek-NPA          |          |
|         | ‘The man is looking for a boomerang.’ |                 |                   |          |
- 
- |         |  |                       |                   |  |
|---------|--|-----------------------|-------------------|--|
|         | Actor/Agent                            |                       | Implicated/Target |  |
| (10.27) | <i>ngayi-na nga-na-minyjala-n-jina</i> | <i>kinya-yi wamba</i> | Warrwa            |  |
|         | I-ERG 1minSUB-TR-wait-IMP-3minOBL      | this-DAT              | man               |  |
|         | ‘I’m waiting for this man.’            |                       |                   |  |

Middle clauses are restricted in comparison to transitives and intransitives in terms of the types of situation they refer to. The main domains covered are prospective perception (especially seeking), emotions experienced towards a person (e.g. affection, shame), basic communicative acts addressed to someone, motion towards someone, and generic action (do something/what to someone). Not all of these domains are included in all languages: in Warlpiri, for instance, communication is excluded. One striking characteristic of middle clauses is that

the two participants are almost always human. The types of situation generally require human agents, and, to a lesser extent, human or animate targets.

All Kimberley languages also have DITRANSITIVE clauses, involving three inherent NPs. The range of situations covered is usually quite small: primarily acts of giving and showing. In many Kimberley languages ditransitive clauses have the same bound pronouns as a transitive clause, but the object pronoun cross-references the recipient rather than the gift, which goes unmarked by both nominal and pronominal markers – see examples (10.28) and (10.29). Ditransitive clauses thus have two participant roles, and three connate roles, one of which is not paired with a participant role.

- |         |                                  |  |                  |              |
|---------|----------------------------------|--|------------------|--------------|
|         | Actor/Agent                      |  | Undergoer/Medium | Medium       |
| (10.28) | <i>ngayu-na nga-na-ø-ny-ø</i>    |  | <i>yila</i>      | <i>warli</i> |
|         | I-ERG 1minSUB-TR-give-PA-3minOBJ |  | dog              | meat         |
|         | 'I gave the dog meat.'           |  |                  | Warrwa       |

- |         |   |  |               |           |
|---------|---|--|---------------|-----------|
|         | Undergoer/Medium                              |  | Medium        |           |
| (10.29) | <i>wongay nyu-ø-miyimbu-nyirri</i>            |  | <i>karaki</i> | Ngarinyin |
|         | woman 3sg <sub>FEM</sub> OBJ-3sgSUB-show-PRES |  | bark:bucket   |           |
|         | 'He is showing the bark bucket to the woman.' |  |               |           |

This is not the only role-pattern found in ditransitives. There is some variation in the treatment of the recipient NP: it is sometimes cross-referenced by an oblique rather than object bound pronoun (both options are available in Warrwa), and is often marked by the dative case-marker as in (10.30).

- |         |   |  |                    |          |
|---------|---|--|--------------------|----------|
|         | Implicated/Target                       |  | Medium             |          |
| (10.30) | <i>kurdu-jarra-ku ka-rna-palangu</i>    |  | <i>miyi yi-nyi</i> | Warlpiri |
|         | child-du-DAT CAT-1sgSUB-3duOBJ          |  | food give-NPA      |          |
|         | 'I am giving food to the two children.' |  |                    |          |

NPs serving exclusively in connate roles are found in other clause types as well, including MEDIO-ACTIVES. These have two inherent NPs: a non-participant Agent, and a participant Actor/Medium, as in (10.31) and (10.32).

- |         |                                   |              |                  |         |
|---------|-----------------------------------|--------------|------------------|---------|
|         |                                   | Actor/Medium | Agent            |         |
| (10.31) | <i>nga-rra-marra</i>              | <i>ngayu</i> | <i>jungku-ni</i> | Nyikina |
|         | lminSUB-FUT/IRR-burn I            |              | fire-ERG         |         |
|         | 'I might get burned by the fire.' |              |                  |         |

- |         |  |              |                 |       |
|---------|--|--------------|-----------------|-------|
|         | Actor/Medium                           | Actor/Medium | Agent           |       |
| (10.32) | <i>boonyja ingarr-bard-ij</i>          | <i>baawa</i> | <i>iiga-nim</i> | Bardi |
|         | all 3plSUB-cover-IMP                   | child        | sick-ERG        |       |
|         | 'All the kids are covered with sores.' |              |                 |       |

Medio-active clauses are a peculiarity of Nyulnyulan languages: all members of the family with the exception of Warrwa have (or had) them, and they are not attested elsewhere in the Kimberley region except in Jaminjung with the verb ‘burn’. A very small range of situation types are represented by medio-active clauses: typically happenings that befall human beings as a result of external action resulting from an inanimate source that is beyond the control of the person.

So far the only clause type we have discussed with a single inherent NP is intransitive, involving an Actor/Medium. There are other possibilities. In some languages reflexive-reciprocals have a single NP marked by the ergative. In these languages reflexive-reciprocals represent a distinct clause type, with an Actor/Agent NP. This is the case in Gooniyandi:

- |         |                    |                       |  |            |
|---------|--------------------|-----------------------|--|------------|
|         | Actor/Agent        |                       |  |            |
| (10.33) | <i>nganyi-ngga</i> | <i>mila-ng + arni</i> |  | Gooniyandi |
|         | I-ERG              | see-1sgNOM + ARNI     |  |            |
|         | ‘I saw myself.’    |                       |  |            |

Walmajarri shows the same reflexive-reciprocal construction, at least for transitive verbs – example (10.34). If, however, the verb is intransitive, ergative marking of the inherent NP is impossible – example (10.35) – and the clause remains intransitive.

- |         |                                   |                       |             |              |            |
|---------|-----------------------------------|-----------------------|-------------|--------------|------------|
|         | Actor/Agent                       |                       |             |              |            |
| (10.34) | <i>parri-jarra-rlu</i>            | <i>ø-ø-pili-nyanu</i> | <i>kuli</i> | <i>pinya</i> | Walmajarri |
|         | boy-du-ERG                        | CAT-3SUB-du-REF       | anger       | hit          |            |
|         | ‘The two boys fought each other.’ |                       |             |              |            |

- |         |  |                           |             |            |
|---------|--|---------------------------|-------------|------------|
|         | Actor/Medium                             |                           |             |            |
| (10.35) | <i>parri-jarra</i>                       | <i>ø-ø-pila-rla-nyanu</i> | <i>yani</i> | Walmajarri |
|         | boy-du                                   | CAT-3SUB-du-REF           | went        |            |
|         | ‘The two boys went their separate ways.’ |                           |             |            |

This section has revealed that clauses in Kimberley languages do not show the simple intransitive vs transitive dichotomy often suggested to be the norm for Australian languages. The two tiers of roles provide a means of differentiating clause types, and accounting for part of their meanings.

### 10.3.3 Verbal clauses of being and having

Most Kimberley languages use nominal clauses to convey meanings expressed by clauses with copula verbs in English. In many languages it is also possible to express many of the same meanings by verbal clauses, albeit with slight nuances of meaning. Just a few languages use verbal clauses as the sole means of making these meanings; they are excluded from the discussion of this section. Here we

deal only with languages making a contrast in meaning between nominal and verbal clauses – in which the VP is always used as a full verb, not as a copula.

### 10.3.3.1 *Verbal existential and characterising clauses*

In many languages the verbs of stance, ‘sit’, ‘stand’, and ‘lie’, are used in verbal clauses corresponding to existential and characterising clauses; identifying clauses do not have corresponding verbal clauses. The choice of verb depends on the posture of the thing claimed to exist or that is characterised, which is an Actor/Medium being denoted by an NP in unmarked form and is cross-referenced by a subject bound pronoun. The other inherent NP in a characterising clause is not cross-referenced, and there is no reason to believe that it serves in any of the roles identified in §10.3.1.

Gooniyandi is a language of this type. For things with a more salient vertical than horizontal dimension *wara-* ‘stand’ is typically used. For things with a more salient horizontal than vertical dimension, *bagi-* tends to be used; it is also normally used for abstractions. Example (10.36) brings out this contrast clearly. Where neither dimension is salient or stance varies *warang-* ‘sit’ is usually used, as illustrated by (10.37).

- (10.36) *Goobardiya marlami mayaroo wara-ø + yi/* Gooniyandi  
 Goobardiya nothing house stand-3sgSUB + I/PA  
*yard-moowa bagi-ø + yi/*  
 yard-only lie-3sgSUB + I/PA  
 ‘At Goobardiya there was no house, there was only a yard.’

- (10.37) *ngamoo yoowooloo-moowa warang-birr + i* Gooniyandi  
 before man-only sit-3plSUB + I  
 ‘Before there were only Aborigines.’

Similar remarks hold for verb choice in characterising clauses, with the qualification that what is primarily relevant is the prototypical stance of the characterised thing in regard to the property, location, or whatever that is attributed of it. Thus people are generally said to lie sick, though in fact there is no implication that this posture was the primary one adopted.

In Nyulnyul, Warrwa, and Yawuru only one verb occurs in verbal existential and characterising clauses, the IV -N(I) ‘sit, be’. However, it is not a meaningless copula. It can’t be added to identifying clauses at all, and there are important differences in the characterising clauses it is normally added to in terms of the attributed feature. The more inherent the feature, the less likely for a verbal clause to be used, and the more temporary and non-inherent it is the more likely a verbal clause will be used. These observations are consistent with the expectation that a thing is more likely to be thought of as engaged in a situation if the feature is non-intrinsic and non-permanent.

10.3.3.2 *Verbal possessive clauses*

A fair number of Kimberley languages have verbal possessive clauses. Languages differ in their preference for verbal or nominal possessive clauses: Gooniyandi prefers the latter, Nyulnyulan languages the former. Perhaps correlated with this are differences in the verbs employed: in Gooniyandi it appears to have ‘hold’ as its primary meaning, whereas in Nyulnyulan languages a more abstract possessive meaning seems to be primary, and ‘hold’ is expressed by a different verb.

The Jaru IV *garrun-* displays the senses ‘hold, have, keep, possess, own’. It can be used for both alienable and inalienable possessions, the latter particularly where there is something special or unusual about it. Examples are (10.38) and (10.39). There is no implication in either that the possessed item is physically held, or even that it is in close proximity to the possessor: the dog in (10.38) could be distant from the addressee at the time of speaking.

- (10.38) *nyundu-gu nga-n garrun-an gunyarr* Jaru  
 you-ERG CAT-2sgSUB have-PRES dog  
 ‘You have a dog.’

- (10.39) *ngaju-nggu nga-rna milwa yambi garrun-an* Jaru  
 I-ERG CAT-1sgSUB eye big have-PRES  
 ‘I have big eyes.’

All Nyulnyulan languages except Yawuru have an IV ‘have’: -BAKAND in Nyulnyul, Jabirrjabirr, and Nimanburru; -LABA ~ -LEBANBAD in Bardi; -BIKA ~ -BI in Nyikina; and -BA in Warrwa. Except for the Bardi IV which belongs to the TR class, these IVs belong to the  $\emptyset$  conjugation class, which contains mainly intransitive IVs; the clause is, however, transitive:

- (10.40) *nga-m-bika-ny-jarr-irr manja yila* Nyikina  
 lminSUB-nasal-have-PA-REL-3augOBJ many dog  
 ‘I used to have lots of dogs.’

- (10.41) *kinimirr-in i-rr-bakand-in karrj jarringk* Nyulnyul  
 shark-ERG 3SUB-pl-have-PRES sharp tooth  
 ‘Sharks have very sharp teeth.’

Verbal clauses with ‘have’ in Nyulnyulan languages express a wide range of possessive senses including: inalienable parts of the body with exceptional qualities; bodily appendages; attached parts of inanimates; manifestations on the body; items held on the body; items held in part of the body; things held in one’s domain of control; persons and animals one is socially responsible for (e.g. kin, pets); owned things over which one has right of use; items in one’s socio-cultural domain; and abstract objects about which one has knowledge, beliefs.

Two other types of verbal clause express possession in many Nyulnyulan languages, both involving the verb ‘be’. One is transitive, and has the IV marked by the applicative (§10.3.6), as illustrated in (10.42); the other is intransitive and has the possessed NP marked by the comitative postposition, as in (10.43).

- (10.42) *ibal-in i-n-in-ang bukiyan bukijamaniman Jabirjabirr*  
 father-ERG 3sgSUB-be-PRES-APP things all:kinds  
 ‘Father has many things of all kinds.’

- (10.43) *kulurr wamba, i-nga-na kujarra-warri yiri nyin-kardiny,*  
 hawk man 3minSUB-be-IMP two-COM woman this-side  
 ‘The hawk man had two wives on this side of the river.’ Warrwa

How the three verbal clause types contrast in meaning is not well understood. However, they contrast with nominal possessive clauses along the dimensions mentioned earlier. They tend to be used for temporary, non-intrinsic, and non-defining possessions that may be maintained or used; nominal clauses are used for more permanent and inalienable possessions. Broadly speaking, verbal clauses represent the possessive relations as obtaining in situations, while nominal clauses represent them in the abstract, not tied down to times, places, or events.

### 10.3.4 Secondary predicates

In nominal and verbal characterising clauses one NP, usually the first, serves a referential function, while the other does not: instead it specifies a quality of the thing referred to, predicating it of the referring NP. This phenomenon is not restricted to characterising clauses: an NP can be predicated of a referring NP in other types of clause. In many Kimberley languages an NP can be predicated of an NP serving in any participant role in a clause; such an NP is referred to as a SECONDARY PREDICATE (the VP is the primary predicate). A secondary predicate typically takes the same case-marking morphology as the NP it is predicated of. Secondary predicates come in various types, and form a complex part of the grammar, too complicated to deal with comprehensively here. We restrict attention to those cases in which the secondary predicate indicates a quality or condition.

Secondary predicates always relate in some way to the situation described by the clause; at minimum there is a temporal relation – the quality obtained at the same time, or at a subsequent time to the situation. If the quality is obtained at the same time, the thing predicated of can usually be in any participant role in the clause. The following Warlpiri examples are illustrative. In (10.44), *mata* ‘tired’ is predicated of the Actor *karnta* ‘woman’ of an intransitive clause; in (10.45), *kulu* ‘anger’ is predicated of an ellipsed NP serving as Actor in a transitive clause; and in (10.46) *wanka* ‘raw’ is predicated of the Undergoer *nyampu* ‘this’. In each



case the secondary predicate is accorded the same morphological marking as the NP it predicates on – or the same morphological marking that NP would have had if it had not been ellipsed.

- (10.44) *mata ka-ø karnta nyina-mi wapa-nja-warnu* Warlpiri  
 tired CAT-3sgSUB woman sit-NPA walk-INF-ASSOC  
 ‘The woman is sitting tired from walking.’
- (10.45) *kulu-ngku karnta paka-rnu* Warlpiri  
 anger-ERG woman hit-PA  
 ‘He/She hit the woman in anger.’
- (10.46) *nyampu ka-rna nga-rni wanka* Warlpiri  
 this CAT-1sgSUB eat-NPA raw  
 ‘I am eating this raw.’

If the quality is obtained at a subsequent time, the usual interpretation is resultative: the quality results from the event. Resultatives are usually predicated of Undergoers (as in (10.47)), occasionally of Actors in intransitive clauses (as in (10.48)).

- (10.47) *goorroomba gaj-gaj-l + ø + a boorna* Gooniyandi  
 paper cut-cut-1sgSUB + 3sgOBJ + A piece  
 ‘I cut the paper to pieces.’
- (10.48) *galoorrg-b + ani wayandi boorn-boornoo* Gooniyandi  
 fall-3sgSUB + ANI firewood piece-piece  
 ‘The dead tree fell to pieces.’

### 10.3.5 External possession constructions

EXTERNAL POSSESSION CONSTRUCTIONS are clauses in which the possessor and possession are expressed in different NPs.<sup>7</sup> These constructions are strongly associated with inalienable possessions, most commonly parts of animate beings’ bodies. In Kimberley languages the most widespread external possession construction has the following characteristics: (i) the two distinct NPs take the same case-marking morphology; and (ii) the possessor, not the possession, is cross-referenced by a bound pronoun, and hence serves in a participant role. This type of external possession construction is found in Bunuban, Nyulnyulan, and Pama-Nyungan languages.

In most languages the possessor NP in this type of external possession construction can serve in any participant role. However there is a preference for it to be the Undergoer of a transitive clause or the Actor of an intransitive clause – that is, for it to simultaneously bear the connate role of Medium, as in

the following examples:<sup>8</sup>

- (10.49) *kinya-na kirwa ø-na-ma-na-ngayu/* Warrwa  
 this-ERG bad 3minSUB-TR-put-PA-1minOBJ  
*kanyjingana-na/ nimidi ngajanu*  
 lightning-ERG leg my  
 ‘I got a shock in my leg from the lightning.’ (Literally, ‘The lightning made me bad my leg.’)
- (10.50) *ngayu nga-lma bingbal nga-n-j-an* Warrwa  
 I 1sg-head sore 1minSUB-TR-say-IMP  
 ‘I’ve got a sore head.’ (Literally, ‘I am sore my head.’)

It is less common for the possessor NP to be the Actor/Agent of a transitive clause. Gooniyandi and Warlpiri, among other languages, admit this possibility, though more frequently the possessor is Medium. In Nyulnyul languages it is rare, and attested only in a few Nyikina and Nyulnyul examples:

- (10.51) *ngayi-ni malbulu nga-nkulalma-ny-ø nimarrangka -ni*  
 I-ERG coolamon 1minSUB-make-PA-3minOBJ hand-ERG  
 ‘I made the coolamon with my hands.’ Nyikina
- (10.52) *bardi nga-na-w-ø nga-marl-in kinyingk walangk*  
 grip 1sgSUB-TR-give-3minOBJ 1sg-arm-ERG this spear  
 ‘I gripped the spear by/with my hands.’ Nyulnyul

Even rarer is for the possessor to be in the participant role Implicated. (10.53) is one of the few examples available.

- (10.53) *yaalu ø -jarra-jina nyinka-n/ ninja-n jina* Warrwa  
 stand 3minSUB-stood-3minOBL this-LOC back-LOC his  
 ‘(The snake) stood up behind his back.’

Many Kimberley languages have other external possession constructions, satisfying (ii), but not (i) – that is, the NPs get different case-marking. The most common pattern is for the possessor to be an Undergoer and the possessed NP to be marked by the locative, as in (10.54). Alternatively, the possessed NP may be accorded ablative marking; this is common in clauses referring to grabbing, grasping, and holding events, where it specifies the part of the Undergoer’s body that contact was made at, as in (10.55).

- (10.54) *buy-in i-na-r-ngay nga-mird-uk* Nyulnyul  
 ant-ERG 3sgSUB-TR-pierce-1minOBJ 1sg-leg-LOC  
 ‘Ant(s) bit me on the leg.’

- (10.55) *makarra-ngkawu nga-na-ndi-ny-ø bani Warrwa*  
 tail-ABL 1minSUB-TR-catch-PF-3minOBJ goanna  
 ‘I grabbed the goanna by the tail.’

External possession constructions are *not* obligatory for the expression of body-part possession: it is usually possible to treat the part NP as a participant, as in (10.56) where it is an Actor and (10.57) where it is an Undergoer. But there is a meaning difference. When the part is treated as a participant there is a strong implication that the possessor is not deeply involved in the situation, that the part is as it were disembodied, and involved in the situation to the exclusion of the person. Thus, (10.56) described the involuntary movement of a corpse, while in (10.57) the Actor perceives just a part of the Undergoer, not the entire person.

- (10.56) *i-ngkalkalaman-an ni-marla akal ni-yarda Bardi*  
 3sgSUB-move:around-IMP 3sg-arm and 3sg-body  
 ‘His hand and body were moving around.’

- (10.57) *kinya-na ø-jala-n-janu ngajanu nalma Warrwa*  
 this-ERG 3minSUB-see-PRES-1sgOBL my head  
 ‘He can only see my head.’

All of the external possession constructions we have seen so far involve body-part possessions. They are not, however, so restricted; they can always be used for a small number of other possession types. These are all possessions that may be considered to fall within the domain of a person’s essential ‘self’: personal representations such as names, images (example (10.58)), shadows, reflections, footprints, one’s native country, and a person’s *rayi* ‘conception totem, dreaming’.

- (10.58) *ngirr-a-ndi-ny-jarri-yawu bilirr wamba-na Warrwa*  
 3augSUB-TR-get-PA-REL-1&2minOBJ spirit man-ERG  
 ‘The men took our photograph.’ (More literally, ‘The men got us spirit.’)

Summing up, external possession constructions express an inalienable relation between possessor and possession at clause level. They indicate that a particularly intimate relationship obtains between them, that the possession falls within the personal domain of the possessor in relation to the situation. Roughly, what is done to, by, or for the person-possessor is done to, by, or for the possession; the possession represents the locus of activity of the situation.

### 10.3.6 Transitivity alternations

Unlike languages from some parts of the Australian continent, Kimberley languages show few regular processes whereby clauses of one type can be derived from clauses of another. Nevertheless, various transitivity alternations – pairs of

clauses involving the same lexical verbs (IVs and/or UVs) but different configurations of participant and connate roles – are found. It is usually impossible to consider either alternant as the more basic. Sometimes one or both clauses has a marker signalling transitivity; but often no such marker exists, and the only difference lies in the roles represented. If there is any difference in form between alternating pairs, it is unusual for it to be replicated on a wide scale, with a large number of lexical verbs.

Alternative categorisations of UVs by IVs in compound verb constructions sometimes correlate with differences in clausal transitivity (see §8.3.3); in Nyulnyulan languages alternative assignment of IVs to conjugation classes can be used in the same way (§8.2.3). However, alternative category or class assignment is not a reliable way of indicating transitivity differences at clause level: consistent changes in clause transitivity cannot be reliably associated with different category assignments, and category assignments are always lexically restricted.

Reflexive-reciprocal clauses typically alternate with transitive clauses involving the same lexical UV or IV.<sup>9</sup> They always display reduced transitivity compared to the transitive clause, and there is always a formal marker of their special status, such as a derivational morpheme, a special categorising IV, or a ‘self’ marker. In some languages it is reasonable to treat reflexive-reciprocal clauses as derived from transitive clauses by a regular detransitivising process. In many Kimberley languages, however, this is not motivated, both variants being equally basic.

Nyulnyulan languages have a morphologically marked construction that is typically higher in transitivity than the corresponding unmarked construction. This is the *APPLICATIVE*, marked by a verbal morpheme occurring after aspect and tense suffixes, and before the bound pronominal enclitic – see (8.6) in §8.2.1. This morpheme always has the same form as the instrumental postposition: *-ngany* in Eastern Nyulnyulan languages, *-ang* in Western Nyulnyulan languages. This is perhaps the closest thing to a derivational means of increasing transitivity in a Kimberley language. Added to the verb of an intransitive clause, a transitive clause results whose Actor corresponds with the Actor of the intransitive clause, as can be seen by comparing intransitive (10.59) with transitive (10.60). The Undergoer of (10.60) corresponds with a comitative NP that could optionally be added to (10.59).

- (10.59) *linyju*      *nguy*      *ø-ji-na*      Warrwa  
 policeman    return    3minSUB-say-PA  
 ‘The policeman returned.’

- (10.60) *nguy*    *ø-ji-na-ngany-ø*      *jina waangu*      Warrwa  
 return    3minSUB-say-PA-APP-3minOBJ    his    wife  
*kinya-na*    *wamba*  
 this-ERG    man  
 ‘This man came back with his wife.’

Intransitive clauses of motion, stance, and communication can be applicativised, resulting in transitive clauses. Some transitive clauses can also be applicativised. This normally results in a ditransitive clause with the same roles as ‘give’. The Actors of the two clauses correspond; the Undergoer of the ditransitive corresponds with an optional comitative (sometimes locative) NP; and a third non-participant Medium of the ditransitive corresponds to the transitive Undergoer. The Undergoer of (10.61), the speaker, would occur in a comitative NP in the corresponding transitive clause, while the money would be treated as the Undergoer, and cross-referenced in the verb.

- (10.61) *jina wanangarri ø-na-ma-n-ngany-ngayu* Warrwa  
 his money 3minSUB-TR-put-IMP-APP-1minOBJ  
 ‘He is putting his money with me.’

Applicativisation does not, however, invariably result in addition of a new role, and is moreover restricted to a small set of verbs. What is consistent throughout all uses of the Warrwa applicative is that it indicates that a particularly close association obtains between two NPs in the clause (which two varies from case to case). Only sometimes is there a concomitant increase in transitivity.

A lexical IV or UV can often occur in clauses of different transitivity values with no indication other than the marking of the roles themselves. Many VPs in Gooniyandi can occur in both transitive and intransitive clauses – the verb is not simultaneously assigned to different categories. Thus, assigned to the +A category, *mila-* ‘see’ can occur in both transitive clauses (referring to seeing something) and intransitive clauses (e.g. *mirri mila-ø + ø + a* (sun see-3sgSUB + 3sgOBJ + A) ‘the sun is shining’).

An interesting case of a regular pattern of role alternations that is not formally marked is found in Warlpiri. In clauses of perception, and impact the ordinary transitive clause alternates with a reduced transitivity clause which has a Target instead of a Medium. That is, the semantic patient of the situation is represented by a dative NP (example (10.63)) rather than by an unmarked NP (example (10.62)). When the Target is third person singular, as in (10.63), it is cross-referenced by a special dative bound pronoun; for other persons and numbers the object forms are used.

- (10.62) *janganpa-rna-ø paka-rnu ngajulu-rlu* Warlpiri  
 possum-1sgSUB-3sgOBJ chop-PA I-ERG  
 ‘I chopped out a possum.’

- (10.63) *janganpa-ku-rna-rla paka-rnu ngajulu-rlu* Warlpiri  
 possum-DAT-1sgSUB-3sgDAT chop-PA I-ERG  
 ‘I chopped out a possum.’

Consistent with the connate roles assigned to the patient NP, (10.62) implies success of the action, whereas (10.63) indicates merely that an attempt was made.

## 10.4 Word and phrase order

The freedom of order of phrases in Kimberley languages – as in Australian languages generally – has been commented on already. Order is not used for marking grammatical relations; these are specified by case-marking morphemes and cross-referencing pronouns. In fact, in many languages not only can the phrases of a clause occur in almost any order without affecting their grammatical relations, or the acceptability of the utterance, but so also may the words. There is no requirement that words of a phrase need be together as a continuous unit. Discontinuity of phrases is not uncommon, though it is usually subject to strong constraints. We discuss NP discontinuity in §12.2 later; in this section we ignore the complications of discontinuous units.

Despite the freedom of phrase order, many languages show fairly strong preferences in the order of the inherent units; these may be apparent from a preferred order in elicitation, or in frequency of occurrence in discourse. They are usually not sufficiently strong, however, to warrant identifying one order as basic or ‘underlying’.

Restricting attention to the two main verbal clause types, intransitive and transitive – which usually account for the majority of clauses in discourse<sup>10</sup> – we find different preferences in different languages. Intransitive clauses usually prefer the Actor NP to precede the VP, as in Gooniyandi, Ngarinyin, Warrwa, Nyulnyul, Jaru, and other languages. Yawuru is one of the few Kimberley languages that has been reported to prefer (not strongly) the Actor NP to follow the VP, at least in elicited utterances.

Transitive clauses exhibit more variation. Warrwa and Nyulnyul prefer the Actor to precede the VP and the Undergoer to follow it. Ngarinyin prefers the reverse: the Undergoer tends to precede the VP, the Actor to follow it. Both patterns are common in Yawuru. In Gooniyandi the most common orders are Actor-Undergoer-VP and Actor-VP-Undergoer, which are about equally frequent.

These generalisations are somewhat misleading, in that they concern verbal clauses with full quotas of inherent NPs. In fact, such clauses are not common in discourse, due to the high frequency of ellipsis of NPs: in verbal clauses all NPs in participant roles are often ellipsed. In a corpus of some 4,000 Gooniyandi clauses over 60 per cent of verbal clauses had no inherent participant NP present; a smaller Warrwa corpus showed half of the clauses without a participant NP. In both languages around 70 per cent of intransitive clauses had no Actor NP present; and less than 10 per cent of transitive clauses had both an Actor NP and an Undergoer NP present. These patterns are typical.

Nominal clauses tend to have stronger ordering tendencies than verbal clauses. Characterising clauses strongly tend to have the NP referring to the characterised thing first; in identifying clauses the identified NP is usually first. In existential clauses the locational phrase comes first, if one is present.

A number of other order preferences are noteworthy. Secondary predicates tend to follow the NP they modify, not necessarily immediately; indeed, they often

occur in clause final position. Likewise, in external possession constructions the NP indicating the possession tends to follow the possessor NP.

In questions there is a strong tendency for the question word to come first. In WH-questions – questions about identity of a person or thing, location, time, etc. – the indefinite/interrogative word (see §6.4.2) usually goes in clause initial position, as in the following examples. (If it goes elsewhere, the utterance is most likely a statement with an indefinite.)

- (10.64) *yangki-ni nyamba i-na-ka-nda-jiya* Yawuru  
 who-ERG this 3minSUB-TR-carry-PF-2minOBL  
 ‘Who brought this to you?’
- (10.65) *ngoonyi-yirra ward-ginggir + i* Gooniyandi  
 where-ALL go-2sgSUB/PRES + I  
 ‘Where are you going?’
- (10.66) *ngoonyoo ngaanggi jiginya* Gooniyandi  
 which your child  
 ‘Which is your child?’

Nyulnyulan languages have an interrogative particle for yes/no questions. This particle almost always occurs in first position of a clause:

- (10.67) *marrinyan ... kurru warli muk ya-na-rr-i* Nyikina  
 hungry INTER meat hit 1&2SUB-FUT-pl-say  
 ‘I’m hungry. Can we kill meat?’

In most languages particles – including negative words and probability markers – usually occur before the VP, unless added as an afterthought. Sometimes, as in Gooniyandi, particles tend to occur in initial position in verbal clauses, although they can go anywhere before the VP. In nominal clauses, however, particles usually go between the two NPs.

Conjunctions (and items serving as conjunctions) are strongly associated with initial position. In Pama-Nyungan languages like Warlpiri, Jaru, Walmajarri, the catalyst normally comes in clause second position; occasionally it is found in initial position.

The fact that the order of words and phrases is not rigidly fixed and rarely conveys information about the roles of NPs does not mean that it is arbitrary. It can be relevant to the organisation of the clause as a message-bearing unit. In a number of languages an NP or adverbial in initial position of a non-elliptical clause is the THEME: it either specifies what the clause is about, or establishes a scene within which the situation is located.<sup>11</sup> Consider the following consecutive sentences from a Gooniyandi story. The first clause is clearly about the referent of the initial NP, *yoowarni yoowooloo* ‘one man’; the third clause is clearly about the initial NP,

*boolgawoolga* ‘old men’; the remainder of each clause tells us about these persons. The adverbial preceding the initial NP of the third clause, *liya* ‘west’, facilitates the change in theme from one sentence to the next by resetting the scene.

- (10.68) *yoowarni yoowooloo ward-ø + ji ngilmangi/ Gooniyandi*  
 one man go-3sgSUB + I/PA from:east  
*garli waj-b + arri-wirrangi/ maningga/*  
 boomerang throw-PA/3sgOBJ/3sgSUB + ARRI-3plOBL night  
 ‘One man came from the east, and threw a boomerang at them, at night time.’

- (10.69) *liya/ boolgawoolga/ gawoorrg-birr + ani/ garli Gooniyandi*  
 west old:men drop-3plSUB + ANI boomerang  
*lanngarri ward-ø + ji-wirrangi/*  
 above go-3sgSUB+I/PA-3plOBL  
 ‘In the west, the old men dropped to the ground, and the boomerang went above them.’

## 10.5 Complex sentences

Most Kimberley languages have a number of ways of forming complex sentences by linking clauses together. Three distinct types of linkages can be distinguished, giving a broad classification of complex sentences: (a) EMBEDDING, in which one clause occurs within the boundaries of another and serves a grammatical role in it; (b) COORDINATION and SUBORDINATION, in which clauses are linked together as either equals or unequals, but neither serves a grammatical role in the other; and (c) FRAMING, in which one clause ‘frames’ another, indicating that it is to be taken as a spoken utterance. Only when one clause is embedded in another do we have a construction that can be identified as a clause structurally, and can be analysed in terms of the grammatical relations described in the previous sections. Coordination, subordination, and framing give rise to structures that are not clauses; for instance, (10.68) and (10.69) involve two coordinated clauses – neither utterance as a whole shows clause structure. These three types are discussed in order in the following subsections.

### 10.5.1 Embedding

In embedding, one clause serves as a part of another, in which it serves a grammatical role; it behaves as if it were a phrase and like a phrase is marked by a postposition specifying its grammatical role. Embedding is restricted to non-finite clauses – clauses with non-finite VPs. Since not all languages have non-finite



clauses, embedding is not universal. Even in languages that have embedding, it is not frequent in discourse, and there are always fairly strong restrictions on the grammatical relations that an embedded clause can serve in the main clause. Normally it is an ‘adverbial’ type relation in which the embedded clause specifies a purpose or intention (example (10.70)), cause (example (10.71)), or simultaneous event (example (10.72)).

- (10.70) *kud i-nji ma-barrkarnd-in-ung jin ni-mbal-ingird burrrurr*  
 bend 3sgSUB-say INF-tie-IMP-ALL his 3sg-foot-AG string  
 ‘He bent down to tie up his laces.’ Nyulnyul

- (10.71) *gamba ngoorloog-nhingi yalij-li + mi* Gooniyandi  
 water drink-ABL sick-1sgSUB + MI  
 ‘I got sick from drinking grog.’

- (10.72) *wilamay-uk ma-marr-in i-ni-njal-ø kinyingk mangkirr*  
 food-LOC INF-cook-IMP 3sgSUB-TR-see-3sgOBJ this goanna  
 ‘While he was cooking, he saw the goanna.’ Nyulnyul

Embedded clauses seem never to serve in participant roles in their main clause; occasional examples show, however, that they can sometimes occur in connate roles. Thus, (10.73) shows a non-finite clause of motion serving in the Agent role in a medio-active clause in Nyulnyul (see §10.3.2).

- (10.73) *bulji nga-nji marriny-in ngay* Nyulnyul  
 tired 1sgSUB-say go-ERG I  
 ‘I’m tired from walking.’

In some languages non-finite clauses can serve as secondary predicates; this seems to be a common use of non-finite clauses in Warlpiri. Like nominal secondary predicates, non-finite clauses take a suffix that specifies which NP they predicate on, as well as the temporal relation between the clauses; these are not the same suffixes as mark nominal cases – nevertheless, the ergative suffix attaches to this suffix if the NP serves in the Actor/Agent role. Examples showing simultaneous events are (10.74) and (10.75).

- (10.74) *wati-ngki marlu nya-ngu nguna-nja-kurra* Warlpiri  
 man-ERG kangaroo see-PA lie-INF-OBJCOMP  
 ‘The man saw the kangaroo while it was lying down.’

- (10.75) *wati-ngki marlu nya-ngu parnka-nja-karra-rlu* Warlpiri  
 man-ERG kangaroo see-PA run-INF-SUBCOMP-ERG  
 ‘The man saw the kangaroo while he was running.’

### 10.5.2 Coordination and subordination

Far more common than embedding are coordination and subordination, where one clause is linked to another as an equal or unequal partner in a larger structure that is not a clause. Every Kimberley language makes regular use of these linkage types.

#### 10.5.2.1 Coordination

In coordination the two clauses have equal status; either could be omitted with no effect on grammaticality or the meaning of the remaining clause. In the vast majority of languages clauses are coordinated by simply putting them one after the other, as in examples (10.68) and (10.69).<sup>12</sup> Only rarely are conjunctions used; Bardi and Nyulnyul have conjunctions that are occasionally used in complex sentences, as in:

- (10.76) *walk i-ngkard man jungk dub-dub i-nga-rr-a-m* Nyulnyul  
 sun 3sgSUB-enter so fire blow-blow 3SUB-PA-pl-TR-put  
 ‘The sun set, so they lit a fire.’

A variety of semantic relations are obtained between clauses in plain coordination, where the clauses are strung together without conjunctions. In (10.68) and (10.69) they are related temporally, the second situation following the first in time; this is typical. Other relations include: simultaneity (the events occurred at the same time); contrast (‘but’, ‘however’); replacement (one situation occurred instead of another); restatement (one clause restates the other in different words); and clarification (one clause provides further information to specify the meaning of the other more precisely). Examples of many of these relations can be found in the texts of §11.2.

In some languages sequences of clauses forming complex sentences apparently involve coordination between the second clause and an NP in the first, forming what translates as a relative clause in English. In Gooniyandi, as the following example illustrates, the NP relativised on usually occurs between the two clauses, and might belong to either. The second clause apparently relates to the NP by clarification – it provides more information on it.

- (10.77) *yawan-bin + ∅ + a garndiwirri wagon-ngarri* Gooniyandi  
 thrash-3pOBJ + 3sgSUB + A two wagon-COM  
*gardiya ward-birr + i*  
 white:person go-3plSUB + I  
 ‘He ambushed two white men coming along in a wagon.’

#### 10.5.2.2 Subordination

In subordination, the two clauses are of unequal status: the subordinate clause is backgrounded with respect to the main clause. The subordinate clause does not belong to the main clause, or serve a grammatical role in it; this distinguishes subordination from embedding. Subordination can be distinguished from coordination

by two main features. First, the main clause cannot normally be omitted without resulting in an ungrammatical sentence, or one with a quite different interpretation. Second, the subordinate and main clause often have the potential to occur in either order, without any effect on their relative status, as on which is subordinated to which. By contrast, in coordination it is invariably the second clause that is coordinated with the first.

In perhaps most Kimberley non-Pama-Nyungan languages subordinate clauses are marked by a verbal morpheme, often an enclitic that occurs in final or almost final position in the IV. Usually only two or three morphemes can occur in this position, and thus most languages have just a few formally distinct types of subordinate clause, which usually admit a rather wide range of interpretations. At least one of them will have the potential to modify either an NP or a clause: that is, admit either a relative clause (e.g. ‘person who’ or ‘thing that’) or adverbial clause (e.g. ‘time when’ or ‘place where’) interpretation.

Ngarinyin has a single subordinate clause marker, *-ngarri*. Subordinate clauses have a wide range of senses, including: relative, as in (10.78); locative (10.79); temporal (10.80); causal (10.81); and conditional (10.82).

- (10.78) *ari jinda a-ngu-ngurlanga-ra-ngarri jubago Ngarinyin*  
 man that 3sg<sub>MASC</sub>OBJ-1sgSUB-give-PA-REL tobacco  
*birri beja balya a-ma-ra*  
 it finish leave 3sg<sub>MASC</sub>SUB-do-PA  
 ‘That man who I gave the tobacco has left.’
- (10.79) *ada burr-wa-ni dowarr wa-ngga-ngarri Ngarinyin*  
 sit 3plSUB-fall-PA break 3sg<sub>NEUT</sub>SUB-go/PA-REL  
 ‘They sat down where it (the mail plane) broke down.’
- (10.80) *buju a-ma-ngarri di-yu ba-lu Ngarinyin*  
 finish 3sg<sub>MASC</sub>SUB-do-REL that-ALL go/IMPER-HTH  
 ‘Come here when he has finished.’
- (10.81) *durramarla balya a-rna-lu-ngarri yayji Ngarinyin*  
 black:cockatoo come 3sg<sub>MASC</sub>SUB-go-HTH-REL happy  
*a-wa-ni*  
 3sg<sub>MASC</sub>SUB-fall-PA  
 ‘Because (when) the black cockatoo came to him, he was happy.’
- (10.82) *yaw a-ma-ra-ngarri jari Ngarinyin*  
 yes 3sg<sub>MASC</sub>SUB-say-PA-REL leave  
*a-ng-o-n-dali di*  
 3sg<sub>MASC</sub>OBJ-1sgSUB-hit-PRES-indeed then  
 ‘If he says yes to me, I’ll surely leave him.’

Kija has the almost identical subordinate clause marker *-ngarri* ~ *-karri*, which has temporal and relative senses. It is attached near the end of an IV if the clause has a simple verb construction, to the end of the UV if it has a compound verb construction. Another language with a single subordinate clause marker is Bunuba, which employs the IV suffix *-nya*; a similar range of senses to Ngarinyin *-ngarri* clauses is found.

Nyulnyulan languages generally have more than one subordinate clause marker. The Warrwa and Nyikina IV enclitic *-jarri* ~ *-yarri* is a subordinate clause marker with a similar range of uses and senses to the markers *-ngarri* in Ngarinyin and *-nya* in Bunuba. The IV enclitic *-ngany* – which also serves as the applicative marker (§10.3.6) and instrumental postposition – marks a subordinate clause specifying a situation somehow implicated or involved in the main clause situation, usually as a purpose or intention of its Actor, as in (10.83), sometimes of another participant, as in (10.84).

- (10.83) *kinya-na warli ngaalu-nma kanyjirr* Warrwa  
 this-ERG meat white:cockatoo-ERG look  
*ø-ngira-n-jina kalb-ankaw/*  
 3sgSUB-become-IMP-3minOBL up-ABL  
*ø-nu-ngka-rwa-ø-ngany kinya/ bardkurru warli/*  
 3sgSUB-TR-FUT-follow-3minOBJ-IMPL this kangaroo meat  
 ‘The white cockatoo was looking at him from on top, intending to follow him.’

- (10.84) *wa-la-ø-ngayu kinya/ bakidi/ billycan/* Warrwa  
 2sgSUB-FUT-give-1minOBJ this bucket billycan  
*kururrngkaya ka-na-ngka-marra-ø-ngany/*  
 black 1sgSUB-TR-FUT-burn-3sgOBJ-IMPL  
 ‘Give me the billycan so I can cook tea with it.’

Nyulnyul uses two postpositions as subordinate clause markers, the locative *-uk* and temporal *-karr* (‘as’, ‘when’, ‘while’, etc.). Subordinate clauses marked by *-uk* have relative, locative, and temporal senses; those marked by *-karr* have conditional and apprehensional (‘lest’) senses. Notice that these postpositions have somewhat different senses as subordinate clause markers to the senses associated with their uses as NP and embedded clause markers.

In a few Kimberley languages subordinate clauses occur in special moods. Subjunctive mood in Worrorra – which indicates uncertainty as to the occurrence of the event – is used in subordinate clauses of place (‘where’), time (‘when’), and hypothesis (‘if’). In Gooniyandi three verbally encoded moods mark subordinate clauses: subjunctive (roughly, ‘it is hypothesised, hoped, wished that’), factive (‘it is

a fact that'), and exclamative ('I exclaim that!'). Subordinate clauses in the subjunctive have conditional, hypothetical, counterfactual, reason, and temporal interpretations; those in the factive have relative, locational, and temporal-location uses; and those in the exclamative have mainly apprehensional ('lest') senses. The following three examples provide one illustration of each subordinate clause type:

- (10.85) *marndi* *waj-ja-woorr + ø + arri*  
 fighting:boomerang throw-SUBJ-PRES/3plSUB + 3sgOBJ + ARRI  
*yilba ward-gi + ri* *mangarri*  
 forever go-PRES/3sgSUB + I/PRES not  
*barn-gi + ri* Gooniyandi  
 return-PRES/3sgSUB + I/PRES  
 'Should anyone throw a fighting boomerang, it will go right on, and not return.'
- (10.86) *barn-gila-ng + i* *ngirndaji-nhingi biliga* Gooniyandi  
 return-FAC-1sgSUB + I this-ABL middle  
*barlanyi moord-l + ø + a*  
 snake trample-1sgSUB + 3sgOBJ + A  
 'When I was going back, I stepped on a snake.'
- (10.87) *waya-ngarri-ngga mird-jin + ø + mi* *nyirri*  
 wire-COM-ERG tie-1plEXCSUB + 3sgOBJ + MI spinifex  
*gin.gali-ya gin.gali-ngga*  
 wind-LOC wind-ERG  
*waj-garroo-woo* *nyirri* Gooniyandi  
 throw-PRES/3sgSUB/3sgOBJ/ARRI-EXCLAM spinifex  
 'We tied the spinifex down with wire lest the wind blow it away.'

A number of Kimberley Pama-Nyungan languages mark subordinate clauses in a more English-like fashion, by conjunctions or complementisers, connecting words that occur initially in the subordinate clause and specify the relation between the clauses. Again, a wide range of interpretations is admitted. Warlpiri and Jaru have subordinating complementisers. Jaru has two: *nyangga*, which is used for conditional, hypothetical, and unrealised temporal subordinate clauses, as in (10.88); and *guwa* ~ *guya*, that is used for realised temporal, relative, and locational subordinate clauses, as in (10.89).

- (10.88) *nyangga-n* *ruyu marn-ang-gu* *yan-an-da* Jaru  
 COMP-2sgSUB play say-CONT-PURP go-CONT-IMP

*ganyjurra bin.ga-gawu*

down creek-ALL

‘If you want to play go down to the creek.’

- (10.89) *yambaji-lu mawun nyang-an guwa burnu bayan-an* Jaru  
 child-ERG man see-PRES COMP tree cut-PRES  
 ‘A child sees a man when/while he cuts a tree.’

A language need not restrict itself to subordinate markers of just one type. In addition to complementisers, Jaru uses the dative case-marker *-gu* on purposive subordinate clauses, as illustrated by (10.90).

- (10.90) *nga-rna-nggu bina yung-an nga-n-janu* Jaru  
 CAT-1sgSUB-2sgOBJ knowing give-PRES CAT-2sgSUB-3plOBL  
*gang-gu marnu*  
 carry-PURP word  
 ‘I teach you (the Jaru language) so that you can take (Jaru) words for them (your countrymen).’

### 10.5.3 Framing

All Kimberley languages have complex sentence types that specify that a clause should be construed as a representation of an utterance rather than as a description of a situation. One or more clauses represent the utterance, another (or others) the act of its utterance. The clause representing the act ‘frames’ those representing the utterance – it serves as it were as a frame within which the latter are to be interpreted or construed. The most common type of framing, found in all languages, is DIRECT QUOTATION, in which the utterance is represented as it might have been spoken; thus categories such as person and tense are determined according to the speech situation in which the utterance was reportedly produced. This is illustrated by the following examples, in which the actual producer of the sentences is referred to in the second person in the framed clause.

- (10.91) *nga-yi-lu-la marn-i nyamba-n nyila gang-an* Jaru  
 CAT-1sg-3plSUB-LOC talk-PA what-2sgSUB that carry-PRES  
 ‘They said to me, “What is that you are carrying?”’
- (10.92) *i-ni-njabal-ngay angk liyan mi-n-m-in* Nyulnyul  
 3sgSUB-TR-ask-1minOBJ what like 2sgSUB-TR-put-PRES  
 ‘He asked me, “What do you want?”’

Less common is INDIRECT QUOTATION, where the utterance is reported not as it might have been said, but rather as it could be said in the reporting speech situation. In (10.93) the framed clause does not represent what might have been said by the reported speakers, but what their utterance means in the present speech situation. Notice that the person categories of the framed clause are according to the present speech situation, not the reported one – the first person pronoun prefix refers to the producer of the complex sentence. Indirect reporting is not frequent in any Kimberley language, and appears to be entirely absent from some. In languages that have it, it seems to be restricted to circumstances in which the utterance impinges significantly on the present situation.

- (10.93) *kurr kujarr arri ku-la-rr-j-an*                      *angk nga-ni-j*      Nyulnyul  
 you two    not 2plSUB-IRR-pl-say-IMP    what 1sgSUB-FUT-say  
 ‘Don’t you two tell me what to do.’

In many languages (e.g. Gooniyandi, Nyulnyul, Warrwa) any clause of speech can frame a direct quote. In some languages, however, framing is restricted to the generic verb of speech. This is the case in Ngarinyin and Bunuba, where the framing clause may only have the IV -MA ‘say, do’.

Sometimes what is quoted does not represent speech, but rather ‘inner speech’, including thoughts, perceptions, and intentions. Here again, direct representation is most frequent, though in some languages indirect representation is more frequent than it is for speech. The following examples illustrate direct reporting of thoughts and perceptions:

- (10.94) *niyi miga-ø + mi*                      *tharri*                      *yiganyi*                      Gooniyandi  
 that say-3sgSUB + MI mistakenly uncertain  
*ward-l + ø + a*  
 go-1sgSUB + 3sgOBJ + A  
 ‘He mistakenly thought “I took it unobserved”.’ Or: ‘He mistakenly thought he had taken it unobserved.’

- (10.95) *mila-ø + wirr + a-yi*                      *ngirndaji-ya*                      Gooniyandi  
 see-3sgOBJ + 3plSUB + A-du this-LOC  
*ngirndaji-wami ngab-goorr + a*  
 this-maybe                      eat-PRES/3sgOBJ/3plSUB + A  
 ‘They saw (realised) “Here, maybe this is what they eat!”’

A geographically contiguous block of languages including Ngarinyin, Unggumi, Bunuba, and Warrwa have a framing construction in which the framed utterance represents an intention of the Actor of the framing clause. The framing clause always employs the generic verb ‘say, do’, and the framed utterance is

always in future tense. The construction admits either an intentional or desiderative sense, or a type of causative sense:

- (10.96) *yinda warndij i-rr-o-ra* Ngarinyin  
 spear make 3sg<sub>MASC</sub>OBJ-3plSUB-FUT-hit-1sgOBL  
*a-ma-re-rndu*  
 3sg<sub>MASC</sub>SUB-MA-PA-3plOBL  
 ‘He wanted them to make him a spear’, or ‘He made (forced) them make him a spear.’

### Further reading

Overviews of the syntax of Australian languages can be found in Dixon (1980: ch. 13), Yallop (1982: ch. 5), and Blake (1987: chs 2–4, 8–9). These adopt a rather different approach to the present chapter, which is semiotically oriented – that is, adopts the view that an important part of syntax is about signs, correspondences between syntactic forms and meanings. For similar approaches see Dik (1997a), Halliday (1994), McGregor (1997a), and Van Valin (1993), all of which are quite technical.

Nominal clauses have attracted little attention in the Australianist literature; the corresponding verbal clauses have also been largely ignored; McGregor (1996d) is an exception. Verbal clauses have received much more attention, and numerous descriptive and theoretically oriented works discuss them. Medio-actives are discussed in Hosokawa (1995) and McGregor (1999a); external possession constructions are dealt with in Hale (1981), Blake (1984), McGregor (1985, 1999b), Evans (1995b), and Hosokawa (1995) – the classic work is Bally (1926); on secondary predicates see Laughren (1992), and Schultze-Berndt and Himmelmann (2004).

The classic piece on complex sentences in Australian languages is Hale (1976). Austin (1988) is a collection of articles dealing with complex sentences in various Australian languages. Most modern grammars include descriptions of the constructions, though framing usually plays a minor role. The approach adopted here is explained in more detail in McGregor (1997a); for similar approaches see Halliday (1994), Van Valin (1993), Dik (1997b), and contributions to Haiman and Thompson (1988). On relations between mood and subordination in Australian languages see Merlan (1981), McGregor (1988c), and Verstraete (2002).



## TEXT AND DISCOURSE

### 11.1 Preliminary remarks

To speak a language you need to have more than a knowledge of its vocabulary and grammar. You also need to know how to use it effectively to communicate a message, to request information, to solicit something or action, and so on. Knowledge of how to construct an imperative in English is insufficient: you must also know how, and under what circumstances, to use it to get another person to do something. You need to know when it is better to use another construction: the imperative might be too direct, and offend or anger the addressee. For instance, if you were a guest for a meal at the home of an acquaintance who you did not know very well, to request an extra helping with an imperative ‘Give me more of that!’ would be rude; a more polite way of phrasing it might be the interrogative ‘Could I have some more of that please?’, or declarative ‘I really liked that’ or ‘That was very good’. Speakers of a language have a profound though usually unconscious knowledge of these things; they know how to use words effectively to do things, to achieve their goals and to make appropriate meanings.

But this is only part of the story. Speech typically occurs in an interactive context, involving two or more people interacting with one another – dialogue is the norm, monologue the exception. Utterances normally occur with other utterances, forming larger speech interactions – which in turn constitute part of larger interactions in which people engage in goal-directed activities. Speech interactions are structured in particular ways; they are not arbitrary sets of utterances by speakers speaking at random. A greeting, for example, normally solicits a reciprocal greeting, and the pair will be followed by utterances of different types (sometimes by none), not by repeated greetings. These are important aspects of the structure of greeting portions of interactions, and to fail to respond, or to respond in an inappropriate way, will convey meaning to the other interactant (e.g. that the person wishes to be insulting). Interactants also take turns to speak, their utterances following one another, rather than overlapping, or being separated by excessively long periods of time.

To speak a language thus requires knowledge both of appropriate ways of using the lexical and grammatical resources to achieve your purposes, and of how

interactive events are organised as sequences of utterances, produced by interactants who take turns to speak. We will use the term *DISCOURSE* to refer to the spoken component of an interactive event.<sup>1</sup> Discourses are structured sequence of utterances; this structure is, as usual in language, hierarchical.

At the bottom of the hierarchy are *SPEECH-TURNS*, the smallest discourse units. Unless a speaker is interrupted, a speech-turn is a stretch of speech that achieves some interactive purpose, such as to question, demand, or inform. Example (10.3) illustrates this: A's turn informs the addressee B of something; B responds with a question, requesting clarification about what A has said; A responds to this with the information. These three speech-turns go together to form a larger unit, an *EXCHANGE*, so named because switches in speaker and hearer roles are involved. The next utterance (which could have either A or B as speaker) will most likely move in a slightly different direction, and probably begin a new exchange. A number of exchanges will usually go together to form a coherent portion of a discourse, a *STAGE*, different in interactive goals from other stages. Thus a discourse might consist of an opening stage in which the interactants exchange greetings, followed by a gossip stage in which they exchange topical information, which may in turn be followed by a closing stage, in which they farewell one another. Each stage employs language to different interactive ends, and is in certain respects linguistically distinct from the other stages – speakers of a language can often determine what stage a discourse is at from the linguistic choices made.

A discourse is thus a complete speech event involving two or more interactants, that unfolds over time through successive turns in speaking typically consisting of one or more utterance-sentences. Different types of discourse will be distinguishable according to the nature of these complete events, and the interactions in which they are embedded. For Kimberley Aboriginal societies (both traditionally and in the modern world), we do not know what range of discourse types are or were available. We can be confident that conversation is one among many – others may include discourses of instruction, ritual, trade, haranguing, planning, and so forth.

This is not the only way utterances can be organised to form larger units. Sentence-utterances are also organised both within and across speakers' turns in accordance with the reality they purport to describe. Broadly speaking, there is a tendency for sentences to occur in the same order as the events they describe. However, matters quickly get much more complicated – for example, in describing sequences of events performed by different actors over overlapping times – and hierarchical structure must be also recognised in this aspect of speech-event organisation. This is independent of the organisation of discourse into interactive units such as turns, exchanges, and stages.

To keep the two types of structure distinct we refer to complete units showing the second type of organisation as *TEXTS*. A text describes a complete 'chunk' of reality; it typically conveys a substantial amount of information, constructed in a particular way and representing a particular slant on the described reality. Texts thus have the potential of being treated as culturally significant entities; and like

commodities, can have a value placed on them and can be exchanged. In this regard texts contrast with conversations, which are a type of discourse: conversations are not the sort of thing that are re-performed or exchanged – or, rather, if they are, they must be reconstituted as texts, that are in turn performed in some other discourse environment. Furthermore, culturally important knowledge is generally not codified and preserved in conversational discourse as such. Texts and discourses are thus very different types of unit: texts unfold in discourse, but not every utterance in a discourse need belong to a text. Both have their own separate types of structure: the structure and form of a text is not the same thing as that of an interaction in which it is exchanged or comes into being.

Texts come in a variety of types, including narratives (stories), expositions (descriptions), jokes, procedural texts (describing procedures for making or doing things), songs (defined by their characteristic mode of production), and others. These different varieties – technically known as GENRES – all have their own particular structures. As for discourse, we do not yet have a good idea of the range of text-genres in Kimberley languages; nor indeed do we even have depth knowledge of any single genre in any language, with the partial exception of narrative.

As texts, narratives are cultural commodities, often highly valued; indeed, next to songs they are the most highly valued texts. Many are owned by particular individuals or social groups, who may exchange them with other groups for other narratives, or for artefacts including money. Furthermore, by their acts of narration, people act out the social structure, affirming their own statuses and roles, establishing and transmitting shared values and knowledge.

For all these reasons, the remainder of this chapter deals exclusively with narrative. We begin in §11.2 by presenting a few sample narratives. Following this, in §11.3, we discuss some of the structural features of narratives as texts; §11.4 then briefly outlines some features of the discourse within which narratives are embedded and performed. The discussion of §11.3 and §11.4 focuses on Gooniyandi, the Kimberley language in which narrative has been most carefully studied. Many of the features would seem to hold for narratives in other languages.

## 11.2 Sample narratives

This section presents four sample narratives in three languages from different families: Gooniyandi, Warrwa, and Gunin/Kwini. The narratives are of three different types: traditional secular (non-sacred) mythology (§11.2.1); personal experience (§11.2.2); and (modern) oral history (§11.2.3). Each is told by an expert story teller.

Before presenting the narratives, a few words are called for on the mode of presentation. No single written English rendition of a narrative spoken in an Australian language can be entirely adequate, and for this reason I provide three for each. Even then the representation is imperfect, and important aspects of the meaning and style are lost on non-speakers. Although the meaning of each sentence may be clear, the meaning of the whole narrative might not be appreciated

by the European reader, who might fail to appreciate its point. For this reason, further additional commentary is added here and there, in introductory remarks and in the following subsections. The three versions are as follows.

First comes a transcription of the original performance in the words of the speaker. This is divided into sentences, which are further divided into units bounded by a slash (/), indicating a pause. Units separated by pauses by and large correspond to tone units (§4.6); however, occasionally a pause occurs within a tone unit, and this is indicated by a question mark. Intonation is not shown. One other phonetic feature that is indicated is (non-phonemic) vowel lengthening, marked by a colon. The significance of these features is discussed in §11.3.1. The words are divided fairly exhaustively into morphemes, each of which is given a rough gloss in the second line of the transcription.

The transcription is followed by a free translation into English, which attempts to render the meaning of the narrative into standard written English. This is basically a sentence by sentence translation, though in places sentence boundaries are slightly relocated or two sentences are collapsed into a single written sentence. In this rendition most of the performance features (including hesitations, mistakes, pauses, repetitions, and so on) are edited out. Not every word is represented; on the other hand, additional information is sometimes added in for explanatory purposes.

The third version is a literary translation. This is a rendition into English that attempts to represent the meaning of the story while at the same time remaining faithful to style, to the major characteristics of its mode of delivery. The distinctive phonetic features – division into pause units, their grouping into sentences, and vowel lengthening – are marked, and each line corresponds to a sentence of the original transcription; within each line pauses are again marked by a slash. Hesitations, mistakes, and corrections are also included. This version of the text is best read aloud, as a spoken piece, with pauses in the places indicated. The result should be a spoken narrative that, in general, feels relatively normal as a spoken English narrative. Due to grammatical differences between the original languages and English, it is sometimes impossible to find a simple translation of what falls into a single pause unit, and the literary translation sounds clumsy.

### *11.2.1 Mythological*

Every Kimberley society has a rich heritage of traditional narratives that relate events that occurred in the far distant past, in an era referred to in English as the Dreamtime (see §2.1). During this time the world took its present shape as a result of the activities of the Dreamtime individuals, who sometimes took human shape, sometimes animal shape. These individuals brought both natural and moral order to the world, often by transforming the original state of the world.

Mythological narratives range from children's stories to sacred stories that only certain persons, usually initiated men, have the right to hear. What follows is

a non-sacred Gooniyandi myth about fire. Similar fire myths are found in other Kimberley languages including Bunuba (Rumsey 2000: 128–30), Warrwa, and Unggumi, and Pama-Nyungan languages to the south. Central to these is the theft of fire from the people by an individual (sometimes a crocodile) who takes it down into the water; attempts to retrieve the fire are unsuccessful until a certain bird (different in each version) is enlisted, who succeeds in obtaining it. A rather different version of the fire myth is presented in McGregor (1990: 585–7); although it differs in many details, one common theme is that of theft of the fire by an individual who has some association with water.

### Fire story

Gooniyandi, narrated by Fossil Pluto to Howard Coate, Fossil Downs, 1965.<sup>2</sup>

- (1) *ngirndaji/ thangarndi jilmindi-yoo/ goowaj-ja-wila yaningi/*  
this word Jilmindi-DAT tell-SUBJ-FUT + 1sg > 3sg + A today
- (2) *jilmindi warang-ji-wirrang/*  
Jilmindi sit-PA + 3sg + I-3plOBL
- (3) *wayandi-yoo? moongoorr-wirra-rri/ yoowooloo-ngga*  
fire-DAT prevent-PA + 3sg < 3pl + A-few man-ERG  
*boolgawoolga-ngga/*  
old:men-ERG
- (4) *mangarri ward-ginggira-woo lambarndi/ darragoo*  
not go-PRES + 2sg + I-EXCLAM child sacred  
*miga-wirri-nhi/*  
say-PA + 3pl + I-3sgOBL
- (5) *mangarri-ya warang-ji-wirrang/ mila-wina/*  
not-LOC sit-PA + 3sg + I-3plOBL see-PA + 3pl < 3sg + A
- (6) *mila-wina niyi-nhingi/ grag-bani-wirrang/ wayandi*  
see-PA + 3pl < 3sg + A that-ABL near-PA + 3sg + ANI-3plOBL fire  
*doow-nga/*  
get-PA + 3sg < 3sg + A
- (7) *doomoodi-ya yood-jingi/ baboorroonggo/ gamba-ya/*  
chest-LOC put-PA + 3sg < 3sg + DI down water-LOC  
*nyoombool-winbini-rri/*  
swim-PA + 3pl < 3sg + BINI-few
- (8) *biliga-nhingi-ngga/ nyoombool-wirri-nhi/ marlami-nhingi doow-wa-ya/*  
middle-ABL-ERG swim-PA + 3pl + I-3sgOBL nothing-ABL get-PROG-LOC

- (9) *babi:rri wayandi mila-wirra-nhi/*  
below fire see-PA + 3sg < 3pl-3sgOBL
- (10) *ngambirri-nyali/ gool-nyali-wirri/ babi:rri wayandi bagi-yi-nhi/*  
again-REP try-REP-PA + 3pl + I below fire lie-PA + 3sg + I-3sgOBL
- (11) *niyi-nhingi/ garranggarrangga<sup>3</sup> goowaj-birra-nhi/*  
that-ABL diver:bird tell-PA + 3sg < 3pl + A-3sgOBL
- (12) *garranggarrang-ingga miga-mi-wirrangi/*  
diver:bird-ERG say-PA + 3sg + MI-3plOBL  
*doow-ya-wila-girrangoo-rroo/*  
get-SUBJ-FUT + 1sg > 3sg + A-2plOBL-few
- (13) *liga-winbirra-rri/*  
wait-FUT + 1sg < 2pl + A-few
- (14) *marrgi-nyali/ baboorroo nyoombool-a-wani-nhi/*  
right-REP below swim-PROG-PA + 3sg + ANI-3sgOBL
- (15) *garranggarrang-ingga doow-nga-wirrangi wayandi/*  
diver:bird-ERG get-PA + 3sg < 3sg + A-3plOBL fire
- (16) *jilmindi-ngarri-nyali lamaj-jingi/*  
Jilmindi-COM-REP carry-PA + 3sg < 3sg + DI
- (17) *doomoodoo mila-wirra/ jarri/ yilili-ngarri-windi/*  
chest see-PA + 3sg < 3pl + A if feathers-COM-PA + 3sg + BINDI
- (18) *galooroo doow-wirra-nhi/ doomoodi-ya*  
Rainbow:Snake get-PA + 3sg < 3pl + A-3sgOBL chest-LOC  
*yood-oo-wirra-nhi/*  
put-IT-PA + 3sg < 3pl + A-3sgOBL
- (19) *yilili niyaji bagi-ra-nhi nyamani/*  
feather this lie-PRES + 3sg + I-3sgOBL big
- (20) *niyaji-nhingi doomoodoo thiwa bagi-la-ari jilmindi/*  
this-ABL chest red lie-FAC-PRES + 3sg + I Jilmindi

*Free translation*

- (1) Today I'm going to tell the story of Jilmindi.  
(2) Jilmindi sat with everyone. (3) The old men kept him away from the fire.  
(4) 'Don't go near it, child, it's sacred,' they told him. (5) Having nothing, he sat

near them, watching them. (6) He watched them, then came up to them and took their fire. (7) He put it on his chest and dived down into the water with it.

(8) They dived in from the middle of the pool, but couldn't catch him. (9) But they saw the fire below with him. (10) Again and again they tried, but the fire was below with him. (11) Then they told the diver bird. (12) The diver bird replied, 'I'll get it for you. (13) Wait for me.' (14) He dived straight down to him. (15) The diver bird got their fire. (16) He brought it up with Jilmindi too. (17) They looked at his chest, seeing that he'd become feathered. (18) They got the Rainbow Snake and dabbed it on him.<sup>4</sup> (19) He had lots of feathers now. (20) Because of this, Jilmindi has a red chest.

### *Literary translation*

this/ story about Jilmindi/ I want to tell/ today/  
Jilmindi sat with them/  
for the fire/ they kept him away/ the old men/  
'don't go (there) child/ (it's) sacred' they told him/

5 with nothing he sat by them/ watching them/  
he watched them and after that/ he went close to them/ and got the fire/  
on his chest he put it/ down/ in the water/ he dived with them/  
from the middle/ they dived after him/ without getting him/  
below they saw the fire with him/

10 again/ they tried again/ but the fire was below with him/  
then/ they told the diver bird/  
the diver bird said to them/ 'I'll get it for you/'  
'wait for me/'  
straight/ he was diving down to him/

15 the diver bird got the fire for them/  
he brought it up with Jilmindi too/  
they saw his chest/ ah/ he's become feathered/  
they got the Rainbow Snake for him/ and dabbed it on his chest/  
lots of feathers were on him now/

20 because of this Jilmindi has a red chest/

### **11.2.2 Personal experience**

At the opposite extreme to traditional mythology are narratives of personal experience, narratives that relate events in which the narrator was involved. The following two narratives of personal experience relate unusual events; often personal experience narratives relate more mundane experiences, in which nothing out of the ordinary happens – for instance, which describe an uneventful hunting or fishing trip.

**An unlucky day**

Warrwa, told by Maudie Lennard to William McGregor, Derby, 1995.

- (1) *miliyarri/ ngarr-anda inyja/ wali-ngana karrba-ngkaya/*  
 long:ago 1augSUB-go walkabout meat-ALL hunt-CONT  
*wiliwili-ngana-nyarri/*  
 fishing:line-ALL-COM
- (2) *warna-nyarri jub ngarr-a-ndi-na-ø/*  
 honey-and cut 1augSUB-TR-get-PF-3minOBJ
- (3) *kaliya ngarr-anda-na inyja/*  
 finish 1augSUB-go-PF walkabout
- (4) *warany-mirri baawa mijala-wurru nga-na-ø-na-ø/ wali-ngana*  
 other-EMP child sit-AG 1minSUB-TR-give- PF-3minOBJ meat-ALL  
*karrba-ngkay*  
 hunt-CONT
- (5) *lakarr nga-nda-ny nyinka baalu wanyjarri/*  
 climb 1minSUB-go-IMP this tree one
- (6) *baawa/ nga-na-ma-na-ø karnkarn mijala i-nga-na/*  
 child 1minSUB-TR-put-PF-3minOBJ there sit 3minSUB-be-PF
- (7) *wariny-kan baalu/ jub nga-na-ndi-na-ø kinya/ warna/ kalbu/*  
 one-LOC tree chop 1minSUB-TR-get-PF-3minOBJ this honey up
- (8) *wanyji nga-larra-ny-jina diiny diiny ø-ji-na kalbu/*  
 later 1minSUB-hear-IMP-3minOBL creak creak 3minSUB-say-PF up
- (9) *ø-ngunyjulu-ny kinya baalu ngayi-nyarri nga-nyjalu-ny/ bur-an/*  
 3minSUB-break-IMP this tree I-COM 1minSUB-fall-IMP ground-LOC
- (10) *ø-ngunyjulu-ny-ngany-ngayu/*  
 3minSUB-break-IMP-APP-1minOBJ
- (11) *bur-an nga-nyjalu-ny/ kaliya mawu bud nga-nda-ny/*  
 ground-LOC 1minSUB-fall-IMP finish good arise 1minSUB-go-IMP
- (12) *bud nga-mbulu-ny/ marlu binybal/ nga-l-ya-na/ ninyji-nyarri*  
 arise 1minSUB-emerge-IMP not sore 1minSUB-IRR-say-PF back-COM  
*marlu/*  
 not
- (13) *wuba baawa jarrbard nga-na-ø-ny-ø kaliya yab/*  
 little child lift:up 1minSUB-TR-give-IMP-3minOBJ finish away



- (14) *right/ yawan-kudany kurrak ngarr-i-ny/ warany-ngana buru/*  
 right north-COM go:away 1augSUB-say-IMP other-ALL place
- (15) *kinya-n/ mijala ngarr-wani-na rambala-n/*  
 this-LOC sit 1augSUB-sit-PF sand-LOC
- (16) *wiliwili-nyarri ngarr-a-ngula-ny-ø/ wali/*  
 fishing:line-COM 1augSUB-TR-send-IMP-3minOBJ meat  
*ma-marra-marra-ngkay/ bani/*  
 INF-cook-cook-CONT goanna
- (17) *wanyji nguk/ ø-na-ngula-na/*  
 later build:up 3minSUB-TR-send-PF
- (18) *ngirr-a-yalu-na-ø/ jirrwal wila kalbu/ wila*  
 3minSUB-TR-see-PF-3minOBJ forehead water up water  
*ø-bula-ny-jarri kinya-n/*  
 3minSUB-emerge-IMP-REL this-LOC
- (19) *kaliya kanyjingana-nyarri/ kinya-n/ budij i-nga-na/*  
 finish lightning-COM this-LOC light 3minSUB-be-PF
- (20) *kinya-na kirwa ø-na-ma-na-ngayu/ kanyjingana-na/ nimidi ngajanu/*  
 this-ERG bad 3minSUB-TR-put-1minOBJ lightning-ERG leg my
- (21) *kardkud nga-ndi-ny/ jiliwa/*  
 shock 1minSUB-say-IMP sinew
- (22) *nga-nyjalu-ny/ kinya-n-mirri/*  
 1minSUB-fall-IMP this-LOC-EMP
- (23) *kaliya/ marlu jidji nguma/*  
 finish not step more
- (24) *kaliya yab kurrak nga-ndi-ny/ marlu*  
 finish away go:away 1minSUB-say-IMP not  
*nga-la-minyjala-na-yirr nyin-rnirl iri waranynganyjina/*  
 1minSUB-IRR-wait-PF-3augOBL this-pl woman others
- (25) *kaliya yab/ buju/*  
 finish away finish

*Free translation*

- (1) Some time ago we went on a hunting trip, looking for meat, fish, and things.  
 (2) We also chopped out sugarbag [honey of native bees]. (3) We were on

a hunting trip. (4) I took a young baby just able to sit up along with me, hunting. (5) I was climbing in this tree. (6) I had put the child down to sit over there. (7) I was chopping out sugarbag up in that tree. (8) After a while, I heard a creaking sound up there. (9) The tree broke with me in it, and I fell to the ground. (10) It broke with me in it. (11) I fell to the ground, then got up fine. (12) I got up; I wasn't sore in the back or anywhere; no, I felt fine.

(13) I picked up the little child, and we went away. (14) We set off north, to another place. (15) We sat there on the sand. (16) We were fishing while a goanna was cooking. (17) A bit later, clouds started building up. (18) They saw big clouds up in the sky, and rain coming. (19) Lightning was flashing all around. (20) I got a shock from the lightning in the leg. (21) I got a shock in the muscle. (22) I fell down right there. (23) I couldn't take another step. (24) After some time, when I had regained use of my legs, I went away; I didn't wait for the other women. (25) OK, that's all.

### *Literary translation*

some time ago/ we went travelling/ looking for meat/ and fishing/  
we chopped out sugarbag and things/  
right/ we went travelling/  
I took a young baby with me/ looking for meat/

5 I climbed up this one tree/  
the child/ I had put over there sitting/  
in that tree/ I chopped this/ sugarbag/ up above/  
a bit later I heard a creaking noise up there/  
the branch broke with me and I fell/ to the ground/

10 it broke with me/  
I fell to the ground/ but then got up alright/  
I got up/ not sore/ I wasn't/ not in the back or anywhere/  
I picked up the little child and went away/  
right/ we set off north/ to another place/

15 there/ we sat on the sand/  
we threw out a fishing line/ while meat/ was cooking/ a goanna/  
soon building up/ clouds were coming/  
they saw/ a head of cloud up there/ rain coming there/  
right/ and lightning/ there/ was striking/

20 it made me bad/ the lightning/ in my leg/  
I got a shock/ in the muscle/  
I fell down/ right there/  
right/ I couldn't step any more/  
right/ I went away/ I didn't wait for the other women/

25 OK/ (I went) away/ finish/

**A boat trip to Sir Graham Moore Islands**

Gunin/Kwini, narrated by Delores Cheinmora to William McGregor, Derby, 1988.<sup>5</sup>

- (1) *gooya minya nyarr-ngune-na: doctor crawford dinggi burdee-ni*  
 Gooya this 1pLEXSUB-go-few Doctor Crawford dinghy little-N  
*ni-nggila burdee-ni dinggi/*  
 N-that little-N dinghy
- (2) *dinggi burdee-ni nyarr-ngune-na/*  
 dinghy little-N 1pLEXSUB-go-few
- (3) *gaabi-di/ mary bi-nya/ miyal mi-nya; jagal munun.ga: lalayi*  
 no-EMP Mary B-this hand M-this put don't dreamtime  
*thing/ lalayi; bunga/*  
 thing dreamtime thing
- (4) *bun.gu/ yaal bi-rni a-na-ma-nu/*  
 salt:water not:recognise B-3sg 3sg<sub>A</sub>SUB-IRR-put-2sgOBL
- (5) *winyjali ngurlu-nu-nangga mi-nya wulu/ warriwa*  
 conception:site brother-2sgPOS-GEN M-this spirit:place no:good  
*gee wi-nya ngarlibirri mi-nya/ bu-maa-ridi mary bi-nya/*  
 ?? W-this [place] M-this 3sg<sub>B</sub>SUB-say-?? Mary B-this
- (6) *nyarr-ngune nyarr-ngune-na nyarr-ngune-na nyarr-ngune-na*  
 1pLEXSUB-go 1pLEXSUB-go-few 1pLEXSUB-go-few 1pLEXSUB-go-few  
*nyarr-ngune-na nyarr-ngunee-na nyarr-ngune-na/*  
 1pLEXSUB-go-few 1pLEXSUB-go-few 1pLEXSUB-go-few
- (7) *gaabu jaali ngu-ma geeji gaabu jaali ngu-ma/*  
 no frightened 1sgSUB-say now no frightened 1sgSUB-say
- (8) *bun.gu mu-nggila bun.gu/ marnmarna mu-nggila/ babaraj*  
 salt:water M-that salt:water waves M-that come:up  
*mi-rndi marnmarna mi-nya marnmarna/*  
 3sg<sub>M</sub>SUB-fall waves M-this waves
- (9) *yaraj nyan-bi-na marnmarna mu-nggila yaraj nyan-bi-na*  
 rock 1pLEXCOBJ-hit-few waves that rock 1pLEXCOBJ-hit-few  
*yaraj nyan-bi-na/*  
 rock 1pLEXCOBJ-hit-few
- (10) *babaray mi-rndi/*  
 come:up 3sg<sub>M</sub>SUB-fall

- (11) *nyarr-ngune-na:: dilnggirr nyee-rndi guluwedi yeeji ngu-waana::/*  
 1plEXCSUB-go-few shore 1plEXCSUB-fall ?? glad 1sgSUB-emerge
- (12) *marnmarna mu-nggila/ gaabu mi-rndi ngee yeeji ngu-waana*  
 waves M-that no 3sg<sub>M</sub>SUB-fall ?? glad 1sgSUB-emerge
- dirlnggirr nyee-ndi-nge-gula/ giraa/*  
 shore 1plEXCSUB-fall-HAB-?? place

### *Free translation*

(1) A few of us went to Sir Graham Moore Islands (Gooya) with Dr. Crawford in a dinghy;<sup>6</sup> (2) we went there in a little dinghy. (3) ‘No!’, Mary told us, ‘don’t put our hands in the water. (4) Otherwise the Dreamtime thing, the saltwater thing, will not recognise you [and will get angry with you].’<sup>7</sup> (5) This is your brother’s conception site; this place Ngarlibrri is dangerous,’ said Mary. (6) The three of us kept on going and going. (7) Well, I got really very frightened. (8) Big waves came up on us there. (9) They rocked the little dinghy. (10) More waves came up. (11) We kept going until we finally arrived there, and I was glad. (12) The waves finished, and I was glad to reach the shore.

### *Literary translation*

a few of us went to the Sir Graham Moore Islands with Dr. Crawford in a little dinghy/

we went in a little dinghy/

‘oh no/’ Mary ‘this/ hands don’t put them in the water because of the Dreamtime thing/ the Dreamtime thing/’

‘the salt water (thing)/ will not recognise you’/

5 ‘this is your brother’s conception site/ this place is dangerous’/ said Mary/ the three of us kept going and going and going and going/

no I got really very frightened now/

in the saltwater/ these waves/ they came up to us/

the waves rocked and rocked us/

10 (more) waves came up/

we kept going until we finally reached the shore and I was glad/

these waves/ finished up and I was glad to reach the shore/ the place/

### **11.2.3 Historical**

Stories abound about events that happened in historical times – outside of the narrator’s personal experience, but within the relatively recent past, especially the period since initial contact with Europeans. Many relate violent clashes between Aborigines and Europeans, especially police, and have been passed on over

a number of generations. Particularly widespread is the Captain Cook story, which is found across the Kimberley and into the Northern Territory, and describes the early period of contact, with Captain Cook the main European protagonist. Another popular story, known by almost everyone in the western Kimberley region, is the story of Jandamarra, or Pigeon, an Unggumi-Bunuba man who clashed with the police in the 1890s, and held out against them for four or five years.<sup>8</sup> The following is a Gooniyandi version.

### Jandamarra

Gooniyandi, narrated by Jack Bohemia to William McGregor, Fitzroy Crossing, 1982.

- (1) *policestation/ called/ aa aa/ I tell you English first/*
- (2) *policestation called/ what's this place/ Lilimaloorroo Lilalooloo Lilimaloorroo  
police station/ longa/ Winyjina Gorge/*
- (3) *niyaji-ya/ mayaroo/ gard-bini/ policeman/ aa*  
this-LOC house hit-PA + 3sg < 3sg + BINI policeman aa  
*twentytwo-ngarri-ngga/*  
twenty:two-COM-ERG
- (4) *gard-bini maroowa/*  
hit-PA + 3sg < 3sg + BINI murderer
- (5) *thaanoonggoo bar-windi ngaarri-yirra/*  
up climb-PA + 3sg + BINDI rock-ALL
- (6) *ward-ji/ winyjina-ya warang-ji/*  
go-PA + 3sg + I Windjana-LOC sit-PA + 3sg + I
- (7) *liga-yi niyaji-ya/ WM: mhm/*  
wait-PA + 3sg + I this-LOC
- (8) *warang-ji/*  
sit-PA + 3sg + I
- (9) *limba-ga loorroob-birra-rri garndiwangoorroo-ngga/*  
policeman-ERG follow-PA + 3sg < 3pl + A-plural many-ERG
- (10) *yoowarni limba gard-bini/ yaabja*  
one policeman hit-PA + 3sg < 3sg + BINI other  
*yoowoorr-winmi/*  
run:away-PA +> 3pl + MI

- (11) *niyi-nhingi/ baj-gi-windi ngilanggoo/*  
that-ABL get:up:and:go-ICP-PA + 3sg + BINDI eastwards  
*ngoorndoongoorni-yayoo/ tunnel/*  
what:cha:ma:call:it-ALL Tunnel
- (12) *niyaji-ya-rni warang-ji yilba/*  
this-LOC-SEQ sit-PA + 3sg + I forever
- (13) *loorroob-ji-wirra gard-bi-wirra:: marlami/*  
follow-IT-PA + 3sg < 3pl + A hit-IT-PA + 3sg < 3pl + A nothing
- (14) *miga-nyali warang-ji/*  
thus-REP sit-PA + 3sg + I
- (15) *warang-ji::/ aa/ five year/ wajbali say five year/*  
sit-PA + 3sg + I um
- (16) *niyaji-ya warang-ji/ tunnel gorge/*  
this-LOC sit-PA + 3sg + I Tunnel Gorge
- (17) *niyaji-ya warang-ji/ yilba warang-ji niyaji-ya/*  
this-LOC sit-PA + 3sg + I forever sit-PA + 3sg + I this-LOC
- (18) *yawan-bina? garndiwirri wa? aa? wagon-ngarri/ aa/*  
slaughter-PA + 3pl < 3sg + A two wa um wagon-COM um  
*gardiya ward-birri-yi/*  
white:person go-PA + 3pl + I-two
- (19) *gard-binbini garndiwirri-nyali/*  
hit-PA + 3pl < 3sg + BINI two-REP
- (20) *niyi-nhingi/ warang-ji:: ganyji-yoo mayagayaga-yi/ ganyji/*  
that-ABL sit-PA + 3sg + I bullet-DAT run:out-PA + 3sg + I bullet  
*bullet/ yingi bullet/ ganyji/*  
bullet name bullet bullet
- (21) *niyaji-yoo mayagayaga-yi marlami/*  
this-DAT run:out-PA + 3sg + I nothing
- (22) *niyi-nhingi baj-gi-windi ngiwawoo/*  
that-ABL get:up:and:go-ICP-PA + 3sg + BINDI south
- (23) *ward-ji:: bandaj-goowa-ngarni ngoorndoongoornoo-yoo/*  
go-PA + 3sg + I sneek:up-PROG-PA + 3sg + ARNI what-cha-ma-call-it-DAT

- (24) *maja/ Colin/ ganumbri-ya/ wajbali Colin Oscar Range/ aa/*  
 boss Colin Oscar:Range-LOC white:person  
*Oscar Range Station/*
- (25) *niyaji-ya/ gard-bini Colin wajbali/ maja/*  
 this-LOC hit-PA + 3sg < 3sg + BINI Colin white:person boss
- (26) *niyi-nhingi? ganyji doow-nga/*  
 that-ABL bullet get-PA + 3sg < 3sg + A
- (27) *boojoo dalmaniny-ngarni ganyji/*  
 finish gather:up-PA + 3sg < 3sg + ARNI bullet
- (28) *barn-bindi/ tunnel-yirra-nyali/*  
 return-PA + 3sg + BINDI Tunnel-ALL-REP
- (29) *warang-ji:/ yilba warang-ji niyaji-ya/*  
 sit-PA + 3sg + I forever sit-PA + 3sg + I this-LOC
- (30) *aa? ngambirri-nyali/ liyarnali? policeman? Port Hedland-nhingi/*  
 aa again-REP from:west policeman Port Hedland-ABL  
*Carnarvon-nhingi/ Marble Bar-nhingi/ whats? yaanya ngoorndoo?*  
 Carnarvon-ABL Marble Bar-ABL whats other someone  
*mayaroo-wina? wamba/ Roebourne-nhingi/ aa Broome-nhingi/*  
 house-? later Roebourne-ABL um Broome-ABL
- (31) *mila-wilagini niyaji-ya yoowarni-ya/*  
 see-PA + 3sg + ARNI<sub>2</sub> this-LOC one-LOC
- (32) *brag-binmarni-nhi garndiwangoorroo-ngga/*  
 come:near-PA + 3sg + MARNI-3sgOBL many-ERG
- (33) *nd? yoowooloo/ Roebourne Mick/ jalngangoorroo/ niyaji-ngga/*  
 and man Roebourne Mick doctor this-ERG  
*mila-nga/*  
 see-PA + 3sg < 3sg + A
- (34) *gilba-yingi-nhi/ bilooroo warang-nga baabirri*  
 find-PA + 3sg < 3sg + DI-3sgOBL spirit sit-PA + 3sg < 3sg + A inside  
*la? linggali-ya/*  
 la ankle-LOC
- (35) *bij-ngarni maa gard-bi-nga/*  
 emerge-PA + 3sg + ARNI meat hit-IT-PA + 3sg < 3sg + A

- (36) *boorloomani* *gard-bi-nga* *birndirri-ya liya-yi/*  
 bullock hit-IT-PA + 3sg < 3sg + A plain-LOC west-EMP  
*tunnel-nhingi-ngga li::ya/*  
 Tunnel-ABL-ERG west
- (37) *birndirri-ya* *gard-bini* *boorloomani niyaji-ya*  
 plain-LOC hit-PA + 3sg < 3sg + BINI bullock this-LOC  
*ngilyirr-nga/*  
 skin-PA + 3sg < 3sg + A
- (38) *bila-wirrarni* *niyaji-ya niyaji-ya yalawa/ garndiwangoorroo-ngga/*  
 sneek:up-PA + 3pl + ARNI this-LOC this-LOC close many-ERG
- (39) *gard-boo-wirra* *gard-boo-wirra*  
 hit-IT-PA + 3sg < 3pl + A hit-IT-PA + 3sg < 3pl + A  
*gard-boo-wirra* *marlami/*  
 hit-IT-PA + 3sg < 3pl + A nothing
- (40) *niyi-nhingi* *yoowooloo-ngga?* *Roebourne Mick-ngga mila-nga/*  
 that-ABL man-ERG Roebourne Mick-ERG see-PA + 3sg < 3sg + A
- (41) *bilooroo/* *gilba-yingi-nhi* *baabirri linggali-ya/*  
 spirit find-PA + 3sg < 3sg + DI-3sgOBL inside ankle-LOC
- (42) *linggali-ya* *lingaj-bini* *baabirri/*  
 ankle-LOC shoot-PA + 3sg < 3sg + BINI inside
- (43) *yood-bani/* *waj-barri/* *garanyi*  
 put-PA + 3sg + ANI throw-PA + 3sg < 3sg + ARRI rifle  
*waj-barri/*  
 throw-PA + 3sg < 3sg + ARRI
- (44) *yood-bani* *winhi-rni* *warang-ji/*  
 put-PA + 3sg + ANI only-SEQ sit-PA + 3sg + I
- (45) *gard-boo-wirra::* *wanyan-birrini/* *yilba niyaji-ya-nyali/*  
 hit-IT-PA + 3sg < 3pl + A kill-PA + 3sg < 3pl + BINI forever this-LOC-REP  
*birndirri-ya liya-yi/*  
 plain-LOC west-EMP
- (46) *gard-birrini* *niyaji-ya* *yilba/*  
 hit-PA + 3sg < 3pl + BINI this-LOC forever
- (47) *mangarri* *ngambirri* *gij-gij-goo/* *yilba* *gard-birrini/*  
 not again arise-arise-DAT forever hit-PA + 3sg < 3pl + BINI
- (48) *gard-birrini* *niyaji-ya-nyali/* *birndirri-ya-nyali/*  
 hit-PA + 3sg < 3pl + BINI this-LOC-REP plain-LOC-REP



*Free translation*

(1)–(2) At the police station called Lillimooloora, near Windjana Gorge, (3) Jandamarra [whose European name was Pigeon] shot a policeman [Constable William Richardson] with a twenty-two calibre rifle. (4) He killed him, the murderer.

(5) He climbed up into the mountains [the Napier Range], (6) and then went and stayed at Windjana Gorge. (7)–(8) He waited there for some time. (9) Lots of policemen were following him. (10) He killed one of them, but the others ran away.

(11) After that, he set off and went east to Tunnel Creek. (12) He stopped there for some time. (13) The police kept following him, shooting at him, but without success. (14) He stayed like that, safe. (15)–(16) He stayed there for five years at Tunnel Gorge; (17) he stayed there all that time.

(18) Then one day he slaughtered two white men coming along in a wagon; (19) he killed both of them. (20) After that, having stopped there a while, his bullets ran out. (21) He ran short of bullets, and had none left. (22) Then he set off south. (23) He went and snuck up (24) on the boss, Colin, of Oscar Range station. (25) He killed Colin, the white boss, there. (26) Then he got bullets. (27) He gathered up all the bullets, (28) and went back to Tunnel Creek again. (29) He stopped there; he stayed there for some time.



*Plate 11.1* Ruins of Lillimooloora police station, 1982, where Jandamarra shot Constable William Richardson in October 1894 (© William McGregor).



*Plate 11.2* Grave of Constable Richardson, Derby cemetery (© William McGregor). Soon after Jandamarra was killed Richardson's body was exhumed from a grave near Lillimooloorra, interred here, and given the headstone. The rails and flagstones are recent additions, dating to the 1990s.



*Plate 11.3* Old Derby jail (© William McGregor). Built in the 1880s, this jail originally consisted of two small cells of mud bricks and corrugated iron, built by Aboriginal prisoners. It has since been modified and added to. In the early 1890s Jandamarra was an inmate.

(30) Again, policemen from the west, from Port Hedland, from Carnarvon, from Marble Bar, from Roebourne, and from Broome [gathered together]. (31) He looked at himself there.<sup>9</sup> (32) They all converged on him. (33) Then the Aboriginal doctor, Roebourne Mick, looked at Jandamarra. (34) He found that he had his spirit inside his ankle.

(35) Jandamarra came out and shot an animal; (36) he shot a bullock on the plain to the west of Tunnel Creek. (37) He killed a bullock on the plain and skinned it. (38) The police snuck up together close to the place. (39) They shot at him again and again, but missed every time. (40) Then the Aboriginal man Roebourne Mick looked at him. (41) He found his spirit in his ankle. (42) He shot his spirit inside his ankle.<sup>10</sup> (43) Jandamarra fell to the ground, and dropped his rifle. (44) He fell to the ground, and sat motionless. (45) The police all shot him; they killed him for good, on the plain in the west. (46) They killed him there for good; (47) he never got up again. (48) They killed him right there on the plain.

*Literary translation*

policestation/ called/ aa aa/ I tell you English first/  
 policestation called/ what's this place/ Lilimaloorroo Limalooloo  
 Lilimaloorroo police station/ longa/ Winyjina Gorge/  
 there/ in the house/ he shot him/ a policeman/ um with a twenty-two/  
 he killed him the murderer/

- 5 he climbed up a hill/  
 he went and stayed at Windjana/  
 he waited there/ WM: mhm/  
 he sat there/  
 all the policemen followed him/
- 10 he killed one policeman/ the others ran away/  
 then/ he got up and went east/ to what-cha-ma-call-it/ Tunnel Creek/  
 he stopped there for good/  
 they kept following him/ shooting at him/ without success/  
 he remained like that/
- 15 he stayed/ um/ five years/ white people say five years/  
 there he stayed/ at Tunnel Gorge/  
 he stayed there/ he stayed there for good/  
 he slaughtered? two wa? wagon-travelling/ um/ white people coming along/  
 he killed both of them/
- 20 after that, stopping for a while he ran out of bullets/ ganyji/ bullets/ called/  
 bullets/ ganyji/  
 he ran short of them and had none/  
 then he got up and set off south/

- he went and snuck up on what-cha-ma-call-it/  
 the boss, Colin, at Oscar Range/ the white man Colin (of) Oscar Range/  
 um/ Oscar Range Station/
- 25 there, he killed the white man Colin/ the boss/  
 then? he got bullets/  
 he gathered up all the bullets/  
 he returned/ to Tunnel again/  
 he stayed/ he stayed there for a long time/
- 30 um? again/ from the west? policemen? from Port Hedland/ from  
 Carnarvon/ from Marble Bar/ what's? that other name? the town/ shit/  
 from Roebourne/ and from Broome/  
 he looked at himself there at that place/  
 they all converged together on him/  
 and? the Aboriginal man/ Roebourne Mick/ a doctor/ he/ looked at him/  
 he found out/ he (Pigeon) had his spirit inside his ank? ankle/
- 35 he came out and killed an animal/  
 he killed a bullock on the plain to the west/ west from Tunnel Creek/  
 on the plain he killed a bullock and skinned it there/  
 they snuck up close there/ everyone/  
 they kept shooting at him repeatedly but missed/
- 40 then the Aborigine? Roebourne Mick looked at him/  
 his spirit/ he found it inside his ankle/  
 he shot him inside his ankle/  
 he sat down/ he threw it away/ he threw away his rifle/  
 he sat down/ and just sat/
- 45 they all shot him and killed him/ for good right there/ on the plain in the west/  
 they killed him there for good/  
 he couldn't get up again/ they had killed him for good/  
 they killed him right there/ on the plain/

### 11.3 Narrative structure

Most narratives in Kimberley languages can probably be assigned to one of the three main types illustrated in §11.2, mythological, personal experience, and historical. These types are not rigidly distinct: mythological features can be found in historical narratives, and narratives of personal experience merge into historical narratives.

In each of the three main types subtypes can be distinguished. Mythological narratives can be sacred or secular, and the difference has formal correlates. Sacred mythology is strongly tied to specific named places, and the backbone of

these narratives is the paths of travel by Dreamtime beings from named place to named place, these places being the locations of the significant events. Secular mythology, including children's myths, is not so organised around places and travel – as can be seen in the fire story of §11.2.1. Personal experience and historical narratives can be divided into types according to their primary subject matter. Among Gooniyandi personal-experience narratives we might distinguish hunting and gathering narratives, stockwork narratives, police-tracker narratives, and others. Historical narratives can be divided into those that focus on conflict, those that focus on cooperation, those dealing with unusual events, and so on. Again these thematic types may show characteristic formal differences.

The following subsections are concerned not with differences among narratives but with commonalities. Two characteristic structural aspects of narratives in Kimberley languages are discussed: features of oral delivery in §11.3.1, and the way events are organised into stories in §11.3.2. It must be cautioned that the discussion of these subsections applies specifically to Gooniyandi; many observations appear (on the basis of my own personal experience with Kimberley languages) to have wider applicability, though this remains to be demonstrated.

### *11.3.1 Prosodic characteristics of oral delivery*

Narratives in all Kimberley languages have a characteristic mode of delivery: they are declaimed in short bursts of speech, usually between half a second and two seconds in duration, that are bounded by identifiable pauses varying in length from about half a second to three seconds. Stretches of speech bounded by pauses are the domains of intonation contours. These pause-intonation units (separated by slashes in the sample narratives of §11.2) are important in narrative delivery, and represent units of information into which the message is divided. Only rarely does a pause fall within an intonation contour; such a pause sounds like a prolonged glottal stop, and the pitch of voice following the pause will remain at the same level as it was preceding the pause. Pauses of this type (marked by question marks in the sample narratives) do not mark significant units of narrative delivery.

Between one and about five pause units go together to form a prosodic LINE, roughly a sentence. Each line is made up of a single main unit, which involves the main pitch movement; this may be accompanied by one or more secondary units, which show less variation in pitch.<sup>11</sup> Although within-line pauses can be quite long, they tend to be shorter than inter-line pauses, and pauses of the shortest duration – around half a second – tend to occur within lines.

Figure 11.1 exhibits the pitch contour (top of figure) and sound wave (bottom of figure) of a twenty second stretch from the Jandamarra text of §11.2.3, covering lines 4–9. Notice that the lines vary in length from about 0.6 of a second to about 2.2 second, and are separated by pauses from 0.75 of a second to about 3.4 seconds. The shortest pause – about 0.6 of a second – occurs within line 6. Most lines, it will be observed, end with a clear fall in pitch.

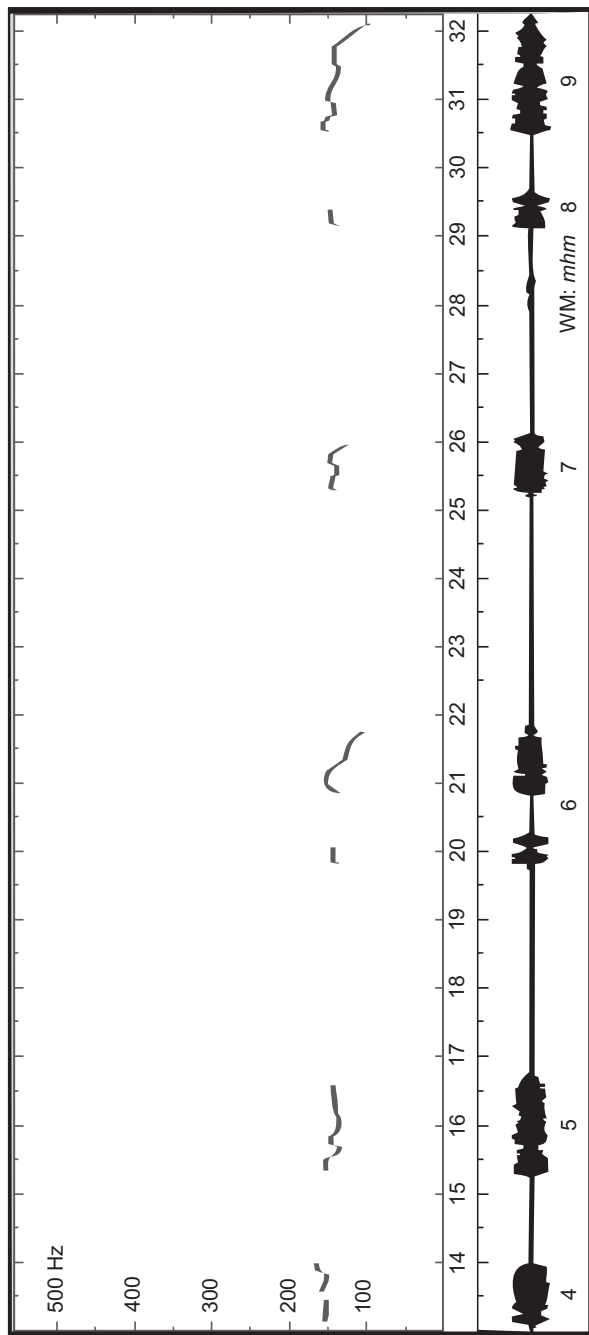


Figure 11.1 Analysis of a 20 second segment of the Jandamarra narrative. The analysis was performed on a digitised version of the text using SpeechStation2. The vertical axis shows pitch in Hertz (cycles per second); the horizontal axis shows time in seconds, indicated by figures along the scales between the pitch and waveform representations. Line numbers are indicated by the numbers below the waveforms.

Another prosodic feature characteristic of narrative delivery is the (non-phonemic) lengthening of word-final vowels of verbs. This is illustrated in a number of places in the sample texts, for example, lines (1) and (11) of the Gunin/Kwini text in §11.2.2, and lines (13), (15), (20), and (23) of the Gooniyandi text in §11.2.3. This usually indicates action that went on for a long time, that was repeated a number of times, or that was done energetically. Sometimes vowels of other words are lengthened for emphatic effects – an example is the second vowel of the adverbial in line (9) of the Gooniyandi text in §11.2.1. And the final vowel of a noun may be lengthened to indicate conjunction with the following noun.

The features discussed in this section are not the only important prosodic features of spoken narratives. The nature of the intonation contour itself (e.g. whether it is rising or falling), as well as which syllable is given the most prominence, are also important. In addition, it is possible that we should also identify verse or stanza units, made up of lines that cohere together in intonation. None of these features have yet been adequately investigated in Kimberley languages.

### 11.3.2 *Episodic structure*

A defining feature of narratives is that they relate a sequence of specific events occurring in some definite sequence over time. This distinguishes narratives from expositions, which describe the world in general terms, focussing on qualities of things rather than on sequences of events. It also distinguishes narratives from procedural texts, in which, although sequences of related events are described, they are not particularised instantiated events but rather generic ones, that should be performed by any person who wants to achieve a particular end.

But narratives exhibit more than mere temporal structure, manifested in sequences of related events. According to a long tradition, narratives are composed of EPISODES that consist of events; that is to say, there is intermediate structure between events and entire narratives. Episodes are parts of narratives that show a minimal narrative structure of their own – they consist of at least three events related as follows:

- (a) an INITIAL STATE, a stable state or exit from an initial stable state characterising the initial conditions;
- (b) one or more subsequent EVENTS;
- (c) a FINAL STATE, a new stable state – or entry into a final stable state – resulting from the Events.

(a) and (c) are normally inverses of one another – the Final State generally contrasts with the Initial State in terms of one or more characteristics which are inverted. For instance, a group of people might begin in (a) as sad, and wind up as happy in (c).



The fire story of §11.2.1 consists of two episodes, roughly as follows:

Episode 1: Initial State	Jilmindi and people are together, people with fire, Jilmindi without (lines 2–4);
Events	Jilmindi steals the fire and dives into water with it (5–8);
Final State	Jilmindi and people are separated, Jilmindi with fire, people without (9).
Episode 2: Initial State	Same as Final State of Episode 1: Jilmindi and people are separated, Jilmindi with fire, people without (10);
Events	People try unsuccessfully to retrieve their fire; they enlist the assistance of the diver bird, who succeeds in getting it; the people then dab the Rainbow Snake on Jilmindi's chest (10–19);
Final State	People and diver bird are again together; the people again have their fire, and Jilmindi is now in a new state – instead of having fire, he has a red breast (20).

In each episode the Initial State and Final State can be regarded as inverses of one another.

There need not be a precise correspondence between the episode components and lines, or the situations that they denote. This holds especially for the Initial State and Final State; very often they are implied rather than precisely specified. There is, however, some tendency for them to be represented by stretches including clauses denoting states or entry to, or exit from, states. Such clauses are usually intransitive, less often transitive, as in the Jandamarra text (§11.2.3), which begins with a clause of violence, which implies entry to a new state of the Undergoer.

Narratives normally consist of discrete episodes that follow one another in their linguistic representation, and do not normally permit insertion of material from other episodes. The boundaries are only occasionally fuzzy. Within an episode, the order of clauses generally reflects the order of events – at least for foregrounded events, events that represent the main action of the episode, its plot. This is apparent in the sample narratives. Backgrounded events and states – those that provide collateral information establishing the setting – do not always fit so neatly into a sequential time framework.

But episodes do not necessarily follow one another in narrative time: the beginning of an episode may be situated somewhere within the temporal span of a previous episode. This is partly a consequence of a general organising principle whereby the clauses forming an episode represent the situations from the perspective of a single character or group of characters, the PROTAGONIST, the primary actor of that episode. To put things in a slightly different way, narratives consist of a string of episodes that themselves represent simple narratives relating plots as the doings of a single character.



An important consequence of this aspect of episode organisation is that for each verbal clause in an episode there is an expected or unmarked Actor, namely the protagonist. (We return to this point in the next chapter.)

According to another tradition of narrative analysis, narratives have three key features:

- (i) a COMPLICATION, in which the original circumstances are disturbed;
- (ii) a RESOLUTION, in which the complication is resolved, and a new and satisfactory condition is entered; and
- (iii) a TURNING POINT between the Complication and Resolution, a critical event whose occurrence permits the achievement of Resolution.

These three elements are clearly present in the fire story. The Complication occurs in lines 6–7 where Jilmindi steals the fire and dives into the water with it; the Turning Point occurs at lines 11–12 where the diver bird is enlisted in the hunt; and the Resolution occurs around line 15 where the diver bird succeeds in capturing the fire and Jilmindi and brings them back to the people. They are also apparent in the Jandamarra text. The Complication occurs at lines 3–4 with the killing of Richardson – exit from the Initial State represents the complicating event. The Turning Point occurs at lines 33–4 where Roebourne Mick finds Jandamarra's spirit in his ankle; this event permits the Resolution at lines 42–6, the avenging of Richardson's death with Jandamarra's. This structure is characteristic of entire narratives, and usually spans more than one episode; it does not define any unit intermediate between events and the entire narrative.

Mythological and historical narratives generally show these three key elements; so also do many narratives of personal experience. It is not obvious that all do, however. For instance, the two texts of §11.2.2 do not appear to have these components. We cannot be entirely sure of this, however, in the absence of native speakers' reactions: it might be that to enculturated Warrwa and Gunin/Kwini people certain events are understood as serving these roles, that certain events represent Complications and Resolutions that might not appear to represent such things to outsiders.

The two aspects of episode structure discussed in this section do not correspond in simple ways to linguistic features: sometimes a unit is implied rather than stated. On the other hand, a text may contain sentences that do not belong to any of the components. For instance, as already mentioned, some sentences describe backgrounded events or states that establish the setting or scene for the narrative, rather than the plot. Not uncommonly a narrative contains early on an authorising statement indicating how the narrator came to know the story – for instance, a statement to the effect that a respected person such as the narrator's grandfather told them the story. A narrative might include a general statement of the main event early on, presaging what will happen – a type of topic sentence, like the title of a written English text. Many Warrwa narratives I have recorded contain such a sentence. And sometimes, as in the case of the Jilmindi text (§11.2.1), there is a concluding statement, indicating the import of the narrative, what it explains. Rarely, an explicit moral is drawn.

### 11.4 The interactive dimension: narrative in discourse

Narratives are commonly thought of as prototypical examples of monologue. This view is mistaken. Narratives are typically performed in interactive contexts, in speech interactions involving two or more persons, at least one of who assumes the role of narrator. In Aboriginal communities it is not uncommon for a narrative to be performed by two narrators taking turns. Usually other individuals will also be present who serve as the audience. Unfortunately, little is known about the speech interactions within which narratives were and are normally performed in Kimberley Aboriginal societies.<sup>12</sup> Most linguists and anthropologists have recorded narratives in fieldwork elicitation sessions, usually involving a single narrator and a single audience (the fieldworker). Rarely are narratives recorded in what might represent a 'naturalistic' setting.

Nor are narratives monologues in the sense that they are performed in a single speech turn by the narrator, in the presence of a mute audience. Members of the audience generally contribute to the performance of a narrative in various ways, minimally by backchannels (expressions such as *mm*, *mhm*, *nn*, *nhn*, etc. – see line 7 of the Jandamarra text), gaze (meeting the narrator's eye), and gestures (e.g. nodding the head). Such acts signal that the audience are attending to what is being said and indicate permission to the narrator to continue; in their absence, a narrator might well relinquish the floor and cease to narrate.

The other interactants in a narrative performance often contribute in significant ways. They might make suggestions as to what happened next, confirm their agreement that the narrator is telling the story correctly, ask questions, echo what the narrator has just said, summarise what the narrator has said, provide an elaborating comment, and so forth. (Exclusive use of backchannels might suggest that the audience is not really paying attention, or is not comprehending what is being said.) The following short extract from a recording made in 1982, is illustrative. It was performed by two old Gooniyandi men, Bigfoot Jagarra (BF), the narrator (NAR), and Jack Bohemia (JB), the respondent (RES), in the presence of William McGregor (audience).

- |     |     |                  |                    |                     |              |
|-----|-----|------------------|--------------------|---------------------|--------------|
| (1) | BF: | <i>yiniga</i>    | <i>thangarndi/</i> |                     | Question     |
|     |     | which            | word               |                     |              |
| (2) | JB: | <i>yoowayi/</i>  |                    |                     | Response     |
|     |     | yes              |                    |                     |              |
| (3) | BF: | <i>marriyali</i> | <i>girli/</i>      |                     | Suggestion   |
|     |     | wife's:mother    | same               |                     |              |
| (4) | JB: | <i>ye?/</i>      | <i>ngoorroo</i>    | <i>thambalngoo/</i> | Confirmation |
|     |     | yes              | that               | country Danggoo     |              |

- (5) BF: *n:/* Confirmation  
mm
- (6) JB: *niyi-nhingi/ girrba-aarra ngoonyi-yayoo/* Question  
this-ABL go-FUT + 1plINC + I which-ALL
- (7) *yaanya/ danggoo-nhingi mirnaloogoo/ ...*  
other Danggoo-ABL towards:here
- (8) BF/NAR: *n: mirrag-barra niyaji-ya/* Narration  
mm lie-FUT + 1plINC + I this-LOC
- (9) JB/RES: *niyaji-ya mirrag-bani/* Suggestion  
this-LOC lie-PA + 3sg + ANI
- (10) BF/NAR: *?n?n/* Confirmation  
mm
- (11) JB/RES: *malngaya-nhingi girrbi-yi/ ngoonyi-ya/* Question  
Malngaya-ABL go-PA + 3sg + I which-LOC
- (12) BF/NAR: *galmarrjoowa/* Completion  
Galmarrjoowa
- (13) JB/RES: *galmarrja/* Echo  
Galmarrja
- (14) BF/NAR: *?n?n/* Acceptance  
mm
- (15) JB/RES: *niyaji-ya mirrag-nyali-wani/* Suggestion  
this-LOC lie-REP-PA + 3sg + ANI
- (16) BF/NAR: *yoowayi/* Confirmation  
yes

*Literary translation*

- BF: what words/  
JB: yes/  
BF: (about) mother-in-laws/  
JB: yes/ that place/ Danggoo/  
5 BF: mm/  
JB: then/ where will we go/  
which place/ from Danggoo this direction/ ...

- BF/NAR: mm 'we'll camp there' [he said]/  
 JB/RES: he camped there/
- 10 BF/NAR: mm/  
 JB/RES: from Malngaya he went/ where to/  
 BF/NAR: [to] Galmarrjoowa/  
 JB/RES: Galmarrja/  
 BF/NAR: mm/
- 15 JB/RES: he camped there too/  
 BF/NAR: yes/

In the beginning of this extract, lines (1)–(4), the two men are negotiating over the narrative they will perform; by line (8) they have adopted their respective roles as narrator and respondent – this is why these roles are not indicated earlier. Thereafter the narrative is performed through a series of turns by the two men, in which the respondent makes suggestions, asks questions, and so on, to which the narrator (who knows the story best) replies. Notice that it takes four turns, lines (11)–(14), to construct a single event, the movement of a person from Malngaya to Galmarrjoowa.

### Further reading

A number book-sized collections of narratives in Kimberley languages have been published, including: Capell (1972b) (various Worrorran languages); Lucich (1969), Lalbanda and Utemorrah (2000), and Utemorrah (2000) (Worrorra); Kimberley Language Resource Centre (1998) (Bunuba); Greene *et al.* (1992) (Kukatja); Binayi *et al.* (1996) (Kija, Jaru, Kriol); and Roe and Muecke (1983), Nailon and Huegel (1990), and Bibby (1997) (Aboriginal English). Hudson *et al.* (1978) contains Walmajarri narratives. Good narrative collections in other Australian languages include Austin (1997b), Dixon (1991), Dixon and Koch (1996), Glass and Hackett (1979), Heath (1981), Hercus and Sutton (1986) (including Kimberley languages Bardi, Ngarinyin, and Jaru), Holmer and Holmer (1969), and Koch (1993). All of these works contain the original texts and translations into English. Many narratives originally told in Aboriginal languages have appeared exclusively in English translation; notable is Berndt and Berndt (1989), which contains English translations of nearly two hundred myths in various languages.

General works on narratives include Labov and Waletzky (1967), Prince (1973, 1982), and Propp (1968); on oral narratives see especially Hymes (1996) and Tedlock (1983). Just a few investigations into narrative structure and function in Australian languages have been undertaken, including Carroll (1995) (Kunwinjku), Klapproth Muazzin (2001) (Pitjantjatjara), Lucich (1996) (Worrorra), McGregor (1987a,b) (Gooniyandi), and Muecke (1982) (Aboriginal English). McGregor (1988d) is the only study of the organisation of narrative interactions as speech events, although comments are widely scattered (e.g. Harney 1959/1969: 31, Crawford 2001: 19). A few other works, mostly with an anthropological orientation, deal with mythology in Aboriginal Australia: Hiatt (1975), Berndt and Berndt (1989), and Rumsey (2001); Australian fire myths are discussed in Maddock (1970).

## GRAMMAR IN LANGUAGE USE

Both views – the one appealing to Logic for help and the other indicating an autonomous rule for Grammar – are equally in disagreement with the facts and to be rejected. It is nothing short of absurd to assume, with the rigid grammarian, that grammar has grown up as a sort of wild weed of human faculties for no purpose whatever except its own existence. The spontaneous generation of meaningless monstrosities in the brain of Man will not be easily admitted by psychology – unless of course the brain is that of a rigid scientific specialist.

(Malinowski 1923/1936: 327)

### 12.1 The nature of grammar

The approach to grammar adopted in this book stresses the importance of both forms (the patterns among units that belong together) and the functions or meanings associated with them. Grammar is not an arbitrary system of rules for putting morphemes and words together in acceptable combinations, rules that are there for no reason other than their own existence. Our approach to noun phrases, verb phrases, and clauses in Chs 7, 8, and 10 showed that description purely in terms of the nature of the constituent units is unrevealing; it is necessary to take into account their functions. We must take into consideration not just the types of units and how they are put together, but also what they do, their roles in the larger constructions they belong to.

Aside from being constituted as strings of units with functions, grammatical structures have meanings and uses. The grammatical system of a language can be seen as a system of contrasting forms that speakers choose among to make meanings and to achieve interactive goals. That is to say, grammar is a system of resources for making meanings, a semiotic system. It is not just the words and morphemes of a language that form a system of signs; the grammar is a sign system also.

In this chapter, we discuss some aspects of grammar from the perspective of speaker's choice. We examine a small selection of circumstances, where a

grammatical choice can be made between one form and a minimally different one, that differs from it in a minor way, such as the presence or absence of a single morpheme. We enquire into the effects of this choice in language use. The approach is a discourse based one in the sense that what is of interest are discourse circumstances in which grammatical alternatives are available to speakers to choose from. A fundamental assumption is that where there is choice, meaning is expressed: if two grammatical forms can be chosen between, then they will never be precisely synonymous. They will always contrast in meaning, and/or use. Exact synonyms do not exist, there is always some meaning difference, either in terms of the world denoted, or in terms of interactive effect.

We begin in §12.2 with a phenomenon for which Australian Aboriginal languages have achieved some notoriety, NP discontinuity, the situation in which words of a single NP are separated from one another by words not belonging to it. In §12.3, we turn to a less well-known feature of some non-Pama-Nyungan languages, ‘optional’ and focal ergative marking – situations in which the ergative marker is not obligatorily used on an Agent NP (see §10.3.1), and where a certain morpheme assigns focus to the Agent NP. Finally, in §12.4 we turn to quotation, the representation of a stretch of speech as an utterance produced in some (usually different) speech interaction. These three phenomena contrast with more frequent grammatical choices – continuous NPs, use of the regular ergative marker, and non-quotation – and convey more specific meanings.

These three grammatical phenomena were chosen because I have myself investigated them from a discourse perspective in one or more Kimberley languages. Few other grammatical phenomena have been carefully investigated from such a perspective in any Kimberley language, though there is no end of phenomena that could be. For instance, grammatical categorisation systems such as noun class and categorisation systems are widely believed to play an important role in reference maintenance, including tracking and introducing discourse referents. Thus Rumsey (1982a: 37) has proposed that ‘[i]n general, gender in Uṇaṛinjin has less to do with semantics than with discourse reference maintenance, which is its primary function’. Gender systems are, according to this view, not there simply for the purposes of categorising nouns, or providing a taxonomy of things in the world, but for keeping track of who and what you are referring to. Unfortunately, no detailed investigation of the role of noun classes in reference maintenance has yet been undertaken in a Kimberley language; nor is there any study of the discourse functions of noun categorisation systems. Verb categorisation systems can also play an important discourse role (McGregor 2002a: 363–89).

## 12.2 Noun phrase discontinuity

The literature abounds with claims that NP discontinuity is rife in the typical Australian language, that there are few if any grammatical constraints on the interspersing of words of an NP throughout a clause. Examination of actual instances of language use (as distinct from elicited opinions about acceptability),

however, reveals that the phenomenon is quite constrained, at least in those languages for which corpus information is available. This is true of the Kimberley languages Gooniyandi (McGregor 1997b), Walmajarri (Richards 1979), and Nyangumarta (Geytenbeek 1980); it is also true of Warlpiri (Swartz 1988), often regarded as the paradigm exemplar of a language admitting unconstrained discontinuity. NP discontinuity is even rarer and more constrained in Nyulnyulan languages.

The situation in Gooniyandi is typical. About one in five Gooniyandi NPs with two or more words are discontinuous; these amount to less than 5 per cent of all NPs.<sup>1</sup> Furthermore, discontinuous NPs are subject to a number of strong formal constraints:<sup>2</sup>

- (a) Constituents of discontinuous NPs are split into just two parts, never more.
- (b) Only one discontinuous NP may occur in a clause.
- (c) Each discontinuous piece of an NP is marked by a single instance of a case-marking postposition.
- (d) Discontinuous NPs rarely have more than two words. If a discontinuous NP does have more than two words, only one of the two separate pieces may have more than a single word.
- (e) Usually one part of a discontinuous NP occurs clause initially, the other finally. About three-quarters of discontinuous NPs show this maximal separation. In the remainder, the first piece always occurs before the VP, the second after it.
- (f) Usually, nothing intervenes between the verb and the final piece of a discontinuous phrase.

Constraints (a)–(d) are plausibly motivated by psycholinguistic considerations, and may well facilitate processing. Other constraints cannot be accounted for in this way; in particular, (e) has the effect of maximally separating the discontinuous pieces, which can hardly lighten processing burden. In fact, (e) is crucial to an understanding of the meanings associated with NP discontinuity. Before discussing meaning, however, it is necessary to distinguish two types of discontinuous NPs:

- 1 UNIFIED, in which the second discontinuous piece belongs to a larger intonation unit; and
- 2 DISCRETE, in which the second piece forms a full intonation unit of its own.

We deal with these two types in order. The following discussion applies specifically to Gooniyandi, though I suspect that many of the findings will generalise to other languages.

In unified discontinuous NPs the two pieces of the NP are normally maximally separated, one piece occurring clause initially, the other clause finally; in addition, they almost always occur within a single intonation unit that usually contains the

rest of the clause. Examples include line (9) of the Jandamarra text (§11.2.3), and the following:

- (12.1) *wanyjirri*                      *ngarragi-ngga* *yoowooloo* *gard-ø + ø + bini*  
 river:kangaroo    my-ERG                      man                      hit-3sgOBJ + 3sgSUB + BINI  
*jamarra/*  
 male:kangaroo  
 ‘A male river kangaroo was killed by my son.’                      Gooniyandi
- (12.2) *girili-ya*    *mird-jirr + ri + mi*                      *niyaji-ya/*  
 tree-LOC    tie-1plEXCSUB + 3plOBJ + MI                      this-LOC  
 ‘We tied them up to that tree, below.’                      Gooniyandi

The initial piece of the NP is usually the theme of the clause (see §10.4). The final piece usually contains the most prominent syllable of the tone unit (shown by bold face). As discussed in §4.6, this indicates what the speaker considers to be the most newsworthy or important item of information in the intonation/information unit. This prominent syllable usually – though not invariably – falls on the last vocabulary item in the intonation/information unit. If it falls anywhere else, the information focus will be contrastive: it will invoke a contrast between the item focussed on and another item that could potentially fill the same role. We saw this in example (4.1) of §4.6: *nganyi baboorroonggoo wardngi/niyi thaanoonggoo wardji/* (I down go-PA/1sgNOM + I, he up go-PA/3sgNOM + I) ‘I went *down*, he went *up*’. Here the intonation focus falls on the second last vocabulary item, which is clearly the point of contrast between the two clauses. When the intonation focus occurs on the last vocabulary item, the information prominence is not contrastive; thus type (1) unified NP discontinuity permits the theme of a clause to be assigned non-contrastive focus.

Why would a speaker assign non-contrastive focus to the theme of a clause? The reason is to indicate that the theme presents new information: that it is not predictable as a filler of the grammatical role in which it is found in the utterance, given the discourse context. In many cases this thematic NP introduces a new participant – a first mention – into the discourse. Unified discontinuous NPs thus contrasts with other strategies for introducing participants, which include (among others): (i) assignment of the theme to a full intonation unit, as in line (33) of the Jandamarra text (§11.2.3); (ii) inclusion of the theme in an intonation unit including the verb (and most of the clause), with marked focus on the theme; and (iii) inclusion of the theme in an intonation unit including the verb, with focus falling on some other NP or the VP. Strategy (i) tends to be associated with NPs denoting the most important characters; (ii) is associated with the introduction of contrastive participants into discourse, involved against the speaker’s expectations; and (iii) is associated with introduction of unimportant things. Unified discontinuous NPs are deployed for the introduction of participants of intermediate



significance, individuals that play a significant role for just a short while, during a brief interlude in which the episode protagonist disappears from view.

Unified NP discontinuity is not, however, exclusively associated with the introduction of new participants. In some cases the participant has already been mentioned, or is present in the speech context, but the fact that it plays a role in the situation is not predictable. Example (12.3) provides illustration: the Agents had already been mentioned in the discourse; however, their role in the situation was not predictable.

- (12.3) *garndiwangoorroo-ngga* *gard-bi-ø + wirr + a*  
 many-ERG hit-IT-3sgOBJ + 3plSUB + A  
*yoowooloo-ngga/*  
 man-ERG

‘Everyone belted him.’

Gooniyandi

As for unified discontinuous NPs that introduce first mentions into discourse, here also there is a strong association with a local theme that lasts only for a short stretch, before the episode protagonist again reasserts himself. Putting things in a slightly different way, unified discontinuous NPs tend to be associated with thematic discontinuity, in which the global theme of an episode, the protagonist, is briefly interrupted.

Finally, the thematic NP may denote a place rather than a thing, in which case similar considerations apply. Places are usually thematic in the sense of establishing scenes within which situations occur, and unified discontinuous NPs are associated with scenes that are locally relevant, for a short stretch of text, rather than over an entire episode. This is illustrated by (12.4), in which the place specifies a precise location for the situation, rather than the entire episode, which took place in a much larger setting. Similarly, in (12.2) the tree persisted only as far as the following sentence, and as a scene was of little importance to the plot of the narrative in which it occurred.

- (12.4) *nijaji-ya* *woob-jirr + ø + a-rrri* *walyarra-ya*  
 this-LOC cook-1plEXCSUB + 3sgOBJ + A-pl sand-LOC  
 ‘We cooked it on this sand.’

Gooniyandi

In discrete discontinuous NPs, which are slightly less common than unified discontinuous NPs, the remainder of the clause other than the final discontinuous piece usually occurs on a single intonation unit. The first discontinuous piece is generally assigned contrastive focus, as in (12.5) and (12.6).

- (12.5) *wayandi* *jard-ji + ø + di/* *nyamani/* Gooniyandi  
 fire ignite-1plEXCSUB + 3sgOBJ + DI big  
 ‘We lit a fire, a big one.’

- (12.6) *nganyi-ngga jawangari nyag-loo + ø + ni/ nyamani/*  
 I-ERG kangaroo pierce-1sgSUB + 3sgOBJ + BINI big  
 'I speared a kangaroo, a big one.' Gooniyandi

Rarely, the initial piece of the discontinuous NP occurs on its own intonation contour:

- (12.7) *voowarni-ngga-nyali gardiya/ laja-ng + a-ngarra/ Gooniyandi*  
 one-ERG-REP white:person ride-3sgOBJ/3sgSUB + A-1sgOBL  
*Ned Colin-ngga/*  
 Ned Colin-ERG  
 'The same white person rode my horse for me, Ned Colin.'

Discrete NP discontinuity expresses a different meaning to unified NP discontinuity. The crucial feature of the former is that the second discontinuous piece either attributes a quality of the referent (examples (12.5) and (12.6)), or identifies it, providing a more precise specification (example (12.7)). The final piece of the discontinuous NP is added as it were as a type of afterthought, providing additional information about the referent. When the initial part of the NP serves as a marked focus, the second piece generally adds qualifying information, adding to what is known about a newly introduced entity; when the initial NP piece is a theme on its own intonation contour, the second piece generally serves an identifying function, adding information to facilitate the identification of the referent.<sup>3</sup>

### 12.3 Pragmatics of ergative marking

Three of the five language families of the core Kimberley region – Pama-Nyungan, Nyulnyulan and Bunuban – mark NPs in participant roles according to the ergative pattern. So also do languages from the two marginal families, Jaminjungan (Jaminjung) and Daly River (Murrinh-Patha). In most ergative languages there are restrictions on ergative marking whereby it is employed only in certain circumstances. It is sometimes restricted according to person or animacy of the NP; for instance, in some languages only third person NPs take ergative marking, while first and second person pronouns are marked according to a nominative-accusative pattern. In some languages it is restricted according to tense or aspect; for example, ergative marking is sometimes restricted to past tense or perfect aspect. In this regard ergative marking in Kimberley languages is unusual: it is not 'split', and occurs on all NP types and regardless of tense and aspect.<sup>4</sup>

Ergative marking in the non-Pama-Nyungan languages is by means of postpositions, and has three other unusual characteristics.

(a) In most of them the ergative marker is sometimes (albeit rarely) attached to the 'subject' of an intransitive clause, as in (12.8); in some language it can even be attached to the 'subject' of a clause in which the verb has been omitted, as in (12.9).

- (12.8) *niyi-ngga ward-j + i marimari-ng + a::*  
 he-ERG go-PA/3sgSUB + I sneak-PA/3sgOBJ/3sgSUB + A  
*wili/*  
 finish  
 ‘He snuck up on him, alright.’ Gooniyandi
- (12.9) *warany-ma karnkanu warany-ma nyinkanu kinya-n-jangarri*  
 other-ERG from:there other-ERG from:this:way this-LOC-EMP  
 ‘One (ran) from this way, the other (ran) from that way.’ Warrwa

(b) The ergative postposition is sometimes omitted from the Agent in a transitive clause. This happens in all Kimberley non-Pama-Nyungan languages with ergative marking, as in the following example:

- (12.10) *ngarlloodoo yoowooloo booloomani/ gard-ø + birr + ini/*  
 three man bullock hit-3sgOBJ + 3plSUB + BINI  
 ‘Three men killed a bullock.’ Gooniyandi

(c) In just one language, namely Warrwa, there is an exceptional ergative postposition that can replace the ordinary ergative postposition. Speakers normally accept both, and say that they mean the same. Thus in (12.11) one could mark *yila* ‘dog’ with either the ordinary and most frequent ergative postposition *-na* or the less common *-nma*, and the same situation would be referred to.

- (12.11) *yila { -na } ø-na-rli-ny kinya wali* Warrwa  
                   { -nma }  
 dog-ERG 3minSUB-TR-eat-PA this meat  
 ‘The dog ate the meat.’

In §12.3.1 we discuss optional ergative marking in Gooniyandi and Warrwa; §12.3.2 discusses the motivations for use of *-nma* in Warrwa; and §12.3.3 compares and contrasts the two languages, and relates them to other languages of the region.

### 12.3.1 Non-marking of Agent NPs in Gooniyandi and Warrwa

The frequency of ergative marking of Agent NPs differs significantly across in the four main clause types in Gooniyandi (see §10.3.2), as shown in Table 12.1, based on the corpus referred to in note 2.

Various factors motivate use vs non-use of the ergative postposition in Gooniyandi. These differ according to clause type, as summarised in Table 12.2.

The factors are of two types: (a) REFERENTIAL, concerning the identity of the Agent; and (b) SEMANTIC, concerning the agentivity or potency of the Agent, how powerful they are taken to be as an Agent. In transitive clauses both

Table 12.1 Frequency of ergative marking of Agent NPs in Gooniyandi

Type	No. of NPs			% of NPs with ergative marking	% of Agents in ergative NPs
	Ergative marked	Unmarked	Ellipsed		
Transitive	228	39	1,493 (84%)	85	13
Middle	31	22	159 (75%)	58	15
Reflexive- reciprocal	9	2	11 (50%)	82	41
Intransitive	12	460	1,508 (76%)	3	0.6
Total	280	523	3,171 (80%)	33	7

factors are relevant to the use of the ergative postposition, and are hierarchically ordered:

- Given that the identity of the Agent is unproblematic (it is easily identified):
  - (i) ergative marking of the NP indicates a high degree of agentivity of the referent;
  - (ii) non-use of the ergative specifies nothing, and the agent may or may not be highly agentive.
- If the identity of the Agent is problematic (it is not readily identified):
  - (i') ergative marking of the NP signifies nothing specific about the agentivity of the Agent;
  - (ii') non-use of the ergative postposition specifies that the Agent has reduced agentivity, and is not potent.

To illustrate the situation for an Agent whose identity is unproblematic, consider the following two examples, the first being line (15) of the fire myth (§11.2.1), repeated here for convenience:

(12.12) *garrangarrang-ingga doow-ng + a-wirrangi wayandi/*  
 diver:bird-ERG get-PA/3sgOBJ/3sgSUB + A-3pOBL fire  
 'The diver bird got the fire for them.' Gooniyandi

(12.13) *niyi laandi nyag-ø + ø + bini/ Gooniyandi*  
 3sg up pierce-3sgOBJ + 3sgSUB + BINI  
 'He speared it up there.'

The diver bird was the expected Agent in (12.12), and equally clearly a highly potent one – recall that he is the only one who was able to regain the fire from Jilmindi. Hence the ergative marking of the NP. Example (12.13) comes from an episode in which the person referred to by *niyi* 'he, she, it' is the protagonist, and

*Table 12.2* Factors relevant to use vs non-use of ergative postposition in Gooniyandi

<i>Clause type</i>	<i>Agent NP ergative marked</i>	<i>Agent NP not ergative marked</i>
Transitive, narrative/ descriptive	Undergoer affected by action. Volitional. Definite Undergoer. Telic.  Unforeseen as Agent given narrative context. Agent contrasts with other (potential) Agent(s). Agent referent set delimited or specified precisely, usually as more/less inclusive than might be expected.	Undergoer not (or less) affected. Non-volitional. Generic or indefinite Undergoer. Atelic.  Not unforeseen as Agent given narrative context. Agent does not contrast with other potential Agents. Agent referent set not precisely delimited.
Transitive, quoted	In commands, second person Agent is given special prominence because there is something surprising about their involvement in the situation. In question–answer pairs the identity of the Agent is at issue. In statements, the identity of the Agent is at issue.	In commands, identity of the Agent as hearer is obscured or downplayed for some reason.  (No examples.)  In statements, the identity of the Agent is not problematic.
Middle	Agent affects recipient, who becomes an Undergoer in subsequent clauses; in a speech situation, this is by means of a framed quotation relating to control of the world (e.g. a command).	Agent does not strongly affect recipient, and is not a subsequent Undergoer; in a speech situation framed quotation does not concern control of the world.
Reflexive- reciprocal	Situation is viewed as an event relevant to the plot of a narrative.	Situation is a state, not directly relevant to the plot; for example, it establishes a temporal frame.
Intransitive	In clauses of speech, framed quotation relates to control of the world. In clauses of seeking, thing sought is distinct individuated entity to which action is directed. Part or aspect of an Undergoer- effective action.	In clauses of speech, framed quotation does not relate strongly to control of the world. In clauses of seeking, thing sought is not an individuated entity. Not a part of an Undergoer- effective action.

*Source:* McGregor (1998a: 503).

is hence the expected Agent (see also §11.3.2). However, there is nothing especially potent about him; he has done nothing more than hunted and killed a kangaroo: he displays an unexceptional degree of agentivity. Accordingly the NP is not marked by the ergative postposition.

The following pair of examples illustrate the situation where the identity of the Agent is problematic:

- (12.14) *Ned Colin-ngga/ rayidim-ng + a-ngarra yawarda/*  
 Ned Colin-ERG ride-3sgOBJ/3sgSUB + A-1sgOBL horse  
 ‘Ned Colin rode my horse for me.’ Gooniyandi
- (12.15) *ngidi garndiwangoorroo/ garndiwirri ngidi yoowooloo-yoorroo/ ...*  
 we many two we man-two  
*baraj-jirr + ø + a-yi/ ...thinga/*  
 follow-1plEXCSUB + 3sgOBJ + A-du foot  
 ‘We all... we two Aborigines tracked him on foot.’ Gooniyandi

Example (12.14) occurred within a narrative episode the protagonist of which was the speaker (narrator); the Agent is thus unexpected. He shows a normal quota of agentivity, and hence the NP is accorded ergative marking. By contrast, (12.15) comes from a narrative about searching for a man lost in the desert, and marks the beginning of the second episode, the first having ended with the death of the lost man. At this point, it could not be predicted that the next Agent would be a first person group; they are unexpected as Agents. By not marking the NP with the ergative postposition the potency and agentivity of the Agent is downplayed. Why should the speaker wish to downplay his own group’s agentivity? The answer is for rhetorical reasons concerning the organisation of the narrative plot. The whole tenor of the second episode is to represent tracking and finding the lost person as a trivial exercise, a stroll in the bush, in stark contrast with the enormous amount of effort that the dead man had put into trying to find his way back home.

For middle and reflexive-reciprocal clauses, only the semantic features are relevant; the referential features are inconsequential.<sup>5</sup> Non-use of the ergative postposition indicates that the Agent is not highly potent, while use of the ergative postposition specifies nothing. In intransitive clauses, however, both conditions must apply: the Actor must be both unpredictable, and unusually high in agentivity.

Another way of understanding things is in terms of choices that a speaker must make in deciding whether or not to use the ergative postposition. The choices can be represented in a flow chart, as shown in Figure 12.1. It is presupposed that the speaker has already chosen to represent the Agent in an NP, and has opted for a particular clause type (factors motivating choice among the transitivity types are ignored). At each choice point in the flowchart the speaker is faced with a question, shown in bold: how does the speaker wish to represent the reality? Following this, in plain font, is indicated the main consideration that the speaker will take into account in answering the representational question, which relate back to the considerations summarised in Table 12.2. An affirmative or negative decision is made at each point; one of these (indicated in grey) will be the most natural and frequent choice.

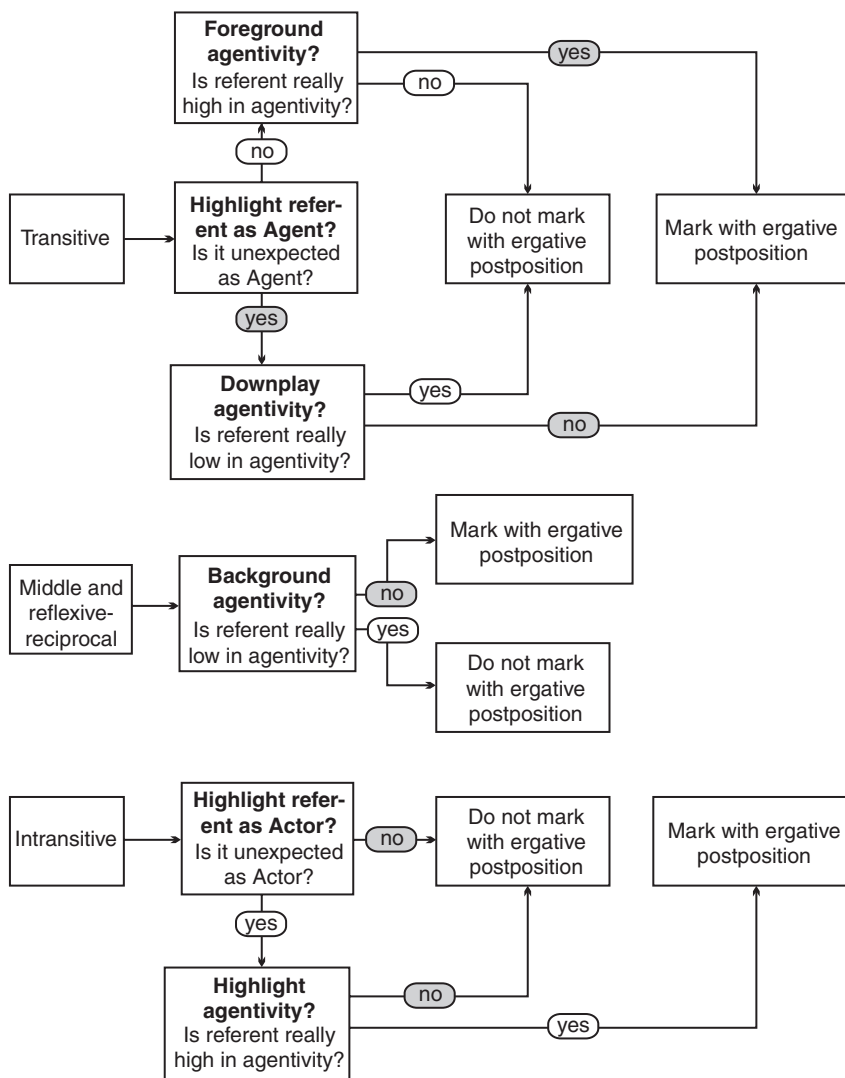


Figure 12.1 Flowchart model of decisions relevant to marking of Agent NPs (after McGregor 1998a: 511).

In Warrwa non-marking of Agent NPs is only about half as frequent as in Gooniyandi. It seems that two requirements must be met for an Agent NP to fail to be marked by the ergative postposition: (i) the Agent must be predictable in the discourse context; and (ii) it must show reduced agentivity. This is illustrated by the following example, given as a description of a drawing depicting a knife with blood on it.

- (12.16) *kunbulu nyinka ø-baan-ø/ nyinka Warrwa*  
 blood this 3minSUB-has-3minOBJ this  
*ø-baan-ø/ nyinka jubjub-ina-waalu/*  
 3minSUB-has-3minOBJ this cut-AG-thing  
 ‘It has blood (on it), this blade.’

### 12.3.2 Focal ergative marker in Warrwa

Recall that Warrwa has three ergative postpositions, *-na*, *-ma*, and *-nma* (see §7.2). The second one, *-ma*, occurs after consonants, the other two following vowels. As mentioned in the introductory remarks to this section, *-na* and *-nma* are in ‘free variation’: whenever one can be used, so can the other; grammaticality is never affected. However, there is an important difference between them: *-nma* is a focal ergative marker – it assigns particular prominence to the Agent; *-na*, by contrast, indicates merely that the NP is an Agent, it does not accord prominence to it.<sup>6</sup>

Broadly speaking, prominence is assigned to an Agent when it is especially potent, which usually means that it is not just a local Agent, but maintains its agentivity over a period of time, and so is normally an episode protagonist. Usually it is the first mention of the protagonist – when is least expected as an Agent – that *-nma* is attached to. For example, a mythological narrative about crow and chicken-hawk, wives of eagle, recounts that the crow, the older woman, is extremely jealous of the chicken-hawk, and ends up killing her. This is stated in the first few sentences of the text that function to provide topic specification presaging the crucial event. First mention to the crow is by an NP marked by *-nma* ERG (12.17). Although the clause itself is not highly transitive – it designates a mental process rather than an activity; it does not involve transfer of energy; and the Undergoer is not changed – the Agent is highly potent over a long stretch of the narrative.

- (12.17) *waangkidi/ waangkidi-nma/ murrkuna ø-jala-na-ø/ Warrwa*  
 crow crow-ERG jealous 3minSUB-saw-PA-3minOBJ  
*kinya yumburra yiri/*  
 this young woman  
 ‘The crow was jealous of the young woman, the chicken hawk.’

This clause was immediately repeated, again with the *-nma* ERG marker on the NP *waangkidi* ‘crow’. Seventeen sentences later we are told that the crow hated the chicken-hawk, and again the NP has the *-nma* ERG marker; this marks the beginning of the second episode, in which the crow is the main protagonist, and highly agentive: she interferes in the sexual activities of the other two birds, eventually kills the chicken-hawk and buries her. She continues to make a pretense of taking the cooked meat from the eagle to the chicken-hawk, in an attempt to conceal the evidence from the eagle. This situation continues until the corpse goes



rotten, and the stench becomes overpowering. Example (12.18) occurs precisely at this point:

- (12.18) *yaaku-nma jina ø-banyju-na-ø wangel/ Warrwa*  
 husband-ERG her 3minSUB-smell-PA-3minOBJ wind  
*wangel-mara/ wangel-mara ø-banyju-n*  
 wind-side wind-side 3minSUB-smell-IMP  
*mandu duwi-ngkaya/*  
 rotten waft-CONT  
 ‘Her husband smelt it on the wind, on the windward side, where the stench was wafting.’

Again in itself this is not a particularly noteworthy event; it is not a highly transitive event. But it does usher in a new episode in which the eagle takes on the role of protagonist, and primary agent, controlling the subsequent events. He discovers the body, and tricks the crow into making a large bonfire, onto which he throws her.

NPs marked by *-nma* are not restricted to episode beginnings. Sometimes they occur in the midst of an episode, in clauses describing unexpected events – where something unusual happens, and things do not go as expected. Some other individual, not the protagonist, may do something that interferes with the protagonist’s plans, wresting (perhaps for a short while) agentivity from the protagonist. Consider (12.19), from a mythological narrative. The episode in which this event occurs involves two men, a big man and a small man, as protagonists. They have found two women, a big woman and a little woman, and the little man has just jumped on the big woman, with sexual intent. He fails; his intentions are thwarted by the big woman, who throws him away.

- (12.19) *kwiina-nma iri marlu laj ø-ji-na kinya Warrwa*  
 big-ERG woman not throw 3minSUB-say-PA this  
*wuba/ laj/ marlu laj ø-ji-na/*  
 little throw not throw 3minSUB-say-PA  
 ‘But no! The big woman threw the little man away.’<sup>7</sup>

A few lines later in the same text (12.20) occurs. Here the NP denoting the big woman takes the ordinary ergative postposition *-na*.

- (12.20) *kaliya kujarra-ngal ø-nginda-na kinya-ngana/ laj Warrwa*  
 finish two-FREQ 3minSUB-go-PA that-ALL throw  
*ø-ji-na kinya-na iri kujarra-ngal/*  
 3minSUB-say-PA this-ERG woman two-FREQ  
 ‘He went to her twice, but she threw him away both times.’

By now the event is no longer unexpected. More importantly, the narrator is summarising what has happened, and the event falls into the background. This brings out another important feature: a clause whose Agent is marked by *-nma* ERG is foregrounded, and always refers to a situation that belongs to the plot, rather than to the scenery. One whose Agent is marked by *-na* ERG may or may not be part of the plot.

### 12.3.3 Some comparative remarks

Crucial to the account of ‘optional’ ergative marking in §12.3.1 is the EXPECTED ACTOR PRINCIPLE, according to which the episode protagonist is – once established – the expected Actor of each main narrative clause of the episode; any other Actor is unexpected. We can better understand the various grammatical means of dealing with Agents in Gooniyandi and Warrwa texts if we adopt the following definition:

- A PROTOTYPICAL AGENT is an Agent that is both expected and normal in terms of the degree of agentivity it exhibits.

The possible ways of representing an Agent in each language can now be summarised as shown in Table 12.3. Graphic representation is provided in Figure 12.2.<sup>8</sup> Note that where dots or lines are superimposed over the grey background this indicates that either representation of the Agent is possible, as specified in the key.

Warrwa is highly unusual amongst the world’s languages in having two ergative postpositions that contrast in terms of focus. Some languages use other means to assign focus to an Agent; in Jaminjung this is achieved by using the ablative instead of the ergative, as in (12.21).

- (12.21) *bat majani janyung-ngunyi ngurlu burru-wu-ngawu* Jaminjung  
 but maybe other-ABL desire 3plSUB/3sgOBJ-FUT-see  
*birrg bunyu-wu-yungga/*  
 take:away 3plSUB/2sgOBJ-FUT-take:away  
 ‘But maybe others will set eye on her (your wife) and rob you of her.’

Table 12.3 Comparison of Agent marking in Gooniyandi and Warrwa

	<i>Gooniyandi</i>	<i>Warrwa</i>
Ellipsis of NP	Prototypical Agent +expected, normal agentivity	Prototypical Agent; +expected, normal agentivity
unmarked NP	Non-prototypical Agent; ±expected, +low in agentivity	Non-prototypical Agent; +expected, +low in agentivity
NP-ERG	Non-prototypical Agent; ±expected, –low in agentivity	Non-prototypical Agent; ±expected, –low in agentivity
NP-FOC/ERG	—	Non-prototypical Agent; ±expected, +high in agentivity

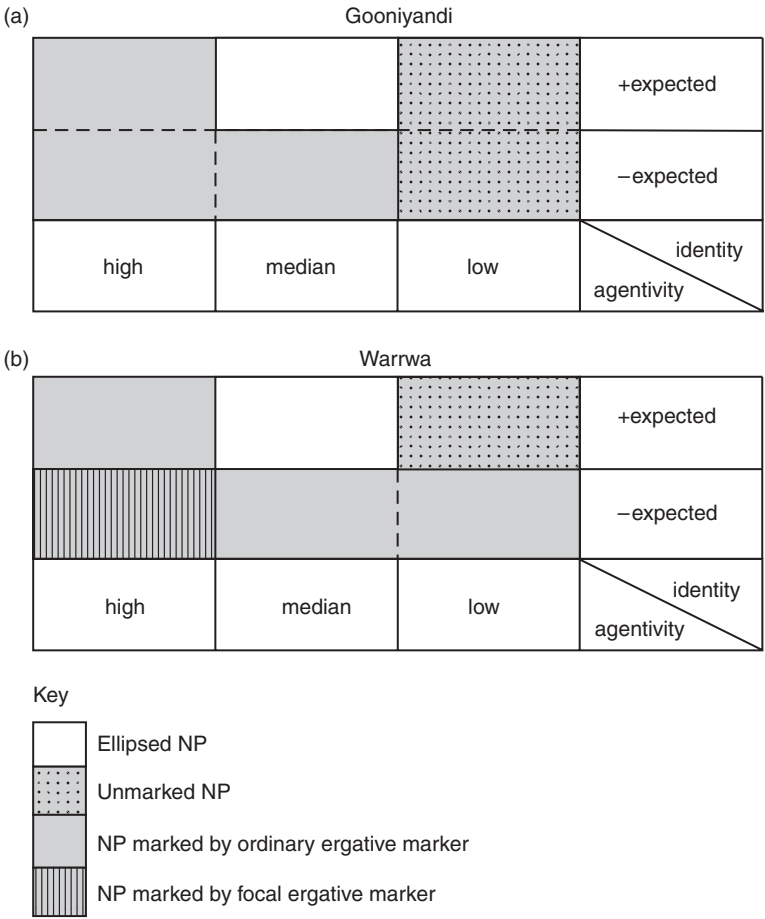


Figure 12.2 Comparison of Agent marking in (a) Gooniyandi and (b) Warrwa.

In Miriwoong, which does not have an ergative marker, the subject of a transitive clause can take the ablative postposition to assign it prominence, as in example (7.18) of §7.2.

12.4 Narrative functions of quotation

Narrators are highly selective in the utterances they quote, restricting themselves to those that are relevant to the plot or setting of a narrative, just as they recount (describe) only events relevant to the plot or setting. Related to this, there is a presumption that the events denoted by quoted utterances occurred in the narrative

world, and narrators often do not follow quotations with clauses specifying that the events did actually occur.

Can we say more than that quoted utterances must be relevant? In fact, we can: quotations are not randomly distributed throughout texts, as would be the case if relevance was the only condition on reporting. Quoted utterances occur at key points in narrative (and other) texts in Gooniyandi and Nyulnyul.<sup>9</sup> Quotation serves an important textual function: it highlights the situation denoted by the quote, bringing it into relief as especially significant. This is generally for one of the following reasons:

- (a) the situation is exceptional in some way, and this property contributes in an important way to the unfolding of the plot of a narrative, or to the development of an argument; or
- (b) the situation is significant within the context of narration.

Quotations satisfying (a) usually refer to events that have not happened as of that point in the referent narrative world, and so anticipate the subsequent events, singling them out as especially noteworthy. The three quoted utterances in the fire myth of §11.2.1 illustrate this. The quote of line (4), ‘Don’t go near it, child, it’s sacred’, presages the Complication, Jilmindi’s theft of the fire, and invokes a contrast with that event. The quotes of lines (12) and (13), ‘I’ll get it for you. Wait for me’, foreshadow the Resolution, the diverbird’s success in obtaining the fire. This observation can be illustrated more fully by considering the distribution of quoted utterances in a rather lengthy narrative describing how the narrator once entered his horses in the Fitzroy Crossing races, and won all of the races. The story begins at Old Bohemia Downs where the narrator then lived, describes the journey into Fitzroy Crossing, the races, and then the return home. Table 12.4 lists the quoted utterances and their context.

The first set of quotations is an exchange between the narrator and the manager of Old Bohemia Downs station; they initiate the plot, highlighting the significant events, the imminent occurrence of the races, and the speaker’s plan to participate. The next quoted exchange involves the speaker and the publican, and foreshadows the main events of the narrative, the speaker’s success in the races (his horses won all three events). The third quoted piece is a brief one, the utterance that started one of the races, also a significant event. Then we have the publican advising the speaker to put his horse in the handicap, marking the beginning of the final race, which is the ultimate success for the narrator. The final utterance signals closure of the story, contrasting nicely with the first utterances by the same person, signalling its opening.

As a final illustration of (a), consider (12.22), from one of the three versions of a Nyulnyul myth about the emu narrated by Carmel Charles. All three have effectively the same quote at just this point, marking the beginning of the sequence of events that form the narrative plot. The quoted utterance singles out and highlights

Table 12.4 Quoted utterances in Fitzroy Crossing races story, told by Jack Bohemia

Context	Utterances
Narrator looks after his horses on Old Bohemia Downs, and puts them through their paces.	The boss said, 'They've already met at the racecourse for the races'. 'For the races, they have already met', he told them . . . he told me. 'Well I'm going', I told the boss. 'I'll take my two horses'. 'OK, take them', he told me. 'I'll come behind', the boss said to me.
Narrator exercises his horses in Fitzroy Crossing on the day prior to the races.	The boss, the publican, Alex Scott, said to me, 'Your horse will come first?' 'Yes', I said to him.
A man starts the first race. The handicap begins.	'OK,' said another white man to them. The publican, said to me, 'Put it in the handicap, the bayhorse. Put it in the handicap'.
The narrator and his party arrive back home and release of their horses.	'That'll do', he [the boss] said to me.

the most significant event, the one that serves pivotally in the progression from the initial state in which the emu was able to fly better than other birds, to the final state, the present state of the world, in which the emu is unable to fly.

- (12.22) *ingirr-ij-jin/ jub wa-nyu/ nyi-marl/ Nyulnyul*  
 3plSUB-say-3sgOBL cut 2sgSUB/FUT-get 2sg-arm  
 'They told him, "Cut your wings".'

The second reason for highlighting a situation by quoting is (b), that it is significant in the context of the narrative performance, including intended future performances in the case of recorded stories. In the early 1980s Dave Lamey recorded with me a number of stories in Gooniyandi – including myths, and stories about traditional practices, kinship, and so on – intended for future language and culture classes in the local schools. One was about the protocols of sharing food, and describes how a hunter goes out, kills a kangaroo, cooks it and takes it back to his parents. At this point the following quote occurs, which concludes the narrative (it is followed by the closing formula *wila niyajiya* 'finished here'):

- (12.23) *ngirndaji maa/ yaa/ Gooniyandi*  
 this meat um  
*thalathala-wi + nggin + ø + mi-girrange/*  
 chop:up-FUT + 2plSUB + 3sgOBJ + MI-2plOBL  
*nganyi mangarri lingi-in + bIRR + a-woo/*  
 I not think-FUT/1sgOBJ + 2plSUB + A-EXCLAM

*gidi-ngga liya-mi-wi + nggirr + r + a-yi/*  
 you:pl-ERG give-IT-FUT + 2plSUB + 3plOBJ + A-du  
*miga-ø + mi-wirrangi/ ngabi-yoo ngarranyi/*  
 tell-3sgSUB + MI-3plOBL father-DAT mother

‘“This meat, cut it up for yourselves. Don’t bother about me. You can share it with them,” he said to his father and mother.’

The situations denoted by the quoted clauses would seem to be more significant in the intended performance contexts of the story than to the unfolding of the narrative plot. They highlight what the narrator considers most significant to the audience, as children living in a very different world from their forebears – who go to school, and have little knowledge about the traditional way of life. Perhaps also the narrator intended not just to inform them about traditional life, but also to stress the appropriateness of this sort of behaviour even today.

Quotation plays at least two other significant roles in discourse. First, situations represented by quotes can be significant in the development of characters, contributing to the construction of the personas of narrative characters. What people say, as much as what they do, constructs their characters and extends our understanding of why they act the way they do. Thus the quotes in the Fitzroy Crossing races text clearly construct the station manager as someone in control: he has the knowledge about when the races are to begin, and agrees to the speaker’s participation in them; he also has the final say, in specifying the conclusion of the events.

Second, quotation is occasionally used in Gooniyandi to authorise what the speaker says, to attest to its veracity by appealing to an acknowledged authority, as in (12.24).

- (12.24) *goowaj-jin + ø + a ngirrangi-ngga* Gooniyandi  
 tell-1plEXCOBJ + 3sgSUB + A our-ERG  
*maja/ war gard-boo-wirr + arni*  
 boss war hit-IT-PRES/3plSUB + ARNI  
*liya/ jmani::: yinglish/ miga-ø + mi-ngirrangi/*  
 west German English tell-3sgSUB + MI-3plOBL  
 ‘Our boss told us. “The Germans and English are fighting a war together,” he told us.’

At this point in the text – a narrative about the speaker’s early life – the narrator is establishing the setting for the events, locating them at the time of the First World War. Not satisfied with saying that it was at war time (stated a sentence or two before), he takes some time establishing the credentials on which he bases this claim – that he heard about the war from someone reliable, namely the manager of the pastoral station on which he worked. (The First World War did not impinge directly on the Kimberley, unlike the Second World War.) The events referred to in this quote play no role in the development of the plot.<sup>10</sup>

### Further reading

On the view that grammar (including syntax) expresses meaning and interacts with discourse, see Bolinger (1977), Halliday (1994), Langacker (1999), and McGregor (1997a). Discourse functions of nominal classification systems are discussed in Hopper (1986) (Malay), Becker (1986) (Burmese), Heath (1983) (Nunggubuyu), and Wilkins (2000) (Arrernte).

Numerous works discuss NP discontinuity in Australian languages, including the theoretical consequences (e.g. Blake 1983; Hale 1983; Austin and Bresnan 1996), and discourse uses/motivations McGregor (1989c, 1997b). Ergativity has been extensively dealt with in the Australianist literature; Silverstein (1976) remains one of the most important references, more readable (though simplified) explications of which can be found in Dixon (1980: 289–91, 1994), and Blake (1987: 20–3, 164–78). On ergativity in relation to discourse see especially Cooreman (1982, 1988), Du Bois (1987), Kachru (1987), and Scancarelli (1986); for critical discussion see O'Dowd (1990). Quotation is less well studied in the Australianist literature, though in the wider context there is an enormous literature on it, including its discourse uses – for example, Banfield (1973), Tannen (1986), Li (1986), and Mayes (1990); Güldemann *et al.* (2002) is a comprehensive bibliography.

## CONCLUSION

In this final chapter we begin by summarising (§13.1) the main characteristics of Kimberley Aboriginal languages, remarking in particular on aspects in which they differ from what is believed to be normal for Australian languages. A book such as this can of course cover only a selection of topics. Important topics that escaped notice are gesture and sign language, and applications of linguistics; these are discussed briefly in §13.2 and §13.3. The final section, §13.4, adds a temporal dimension, looking back to the past, here at the present, and forward to the future; a few tentative predictions are made concerning the future of Kimberley Aboriginal languages.

### 13.1 Summary

Belonging to five main families, and two marginal families, the traditional languages of the Kimberley region are quite genetically diverse, more so than the languages of most regions of the continent with the exception of Arnhem Land. It is possible that all of the languages are distantly related, and can be traced back to a single proto-language. Similarities in the forms of pronouns – believed to be amongst the most resistant words to borrowing – tends to support this view. However, establishment of genetic relatedness requires more than similarity of forms; the similar forms must be systematically related by regular phonological changes. Currently the genetic unity of Kimberley languages is a guess, although the unity of each of the five main families is supported by the historical-comparative method. And even if the languages could be shown to be ultimately related – not everyone believes this to be likely – there is no reason to believe that Kimberley non-Pama-Nyungan families are closer to one another than they are to other Australian families. There is no support for a Kimberley super-family. The proto-language for all non-Pama-Nyungan Kimberley languages could as well be the proto-language for many other non-Pama-Nyungan languages.

Despite their genetic diversity, Kimberley languages share a number of common grammatical characteristics; they are typologically similar. Widespread diffusion of grammatical features – as well as words and morphemes – appears to have taken place over the millennia. Presumably this is associated with widespread



multilingualism in pre-contact times. Typological similarities extend beyond the boundaries of the Kimberley region, and I have attempted to show that the Kimberley was not a linguistic or cultural island either today or in the past.

In Aboriginal conception, there is a close tie between language and land. This is not via the people who speak the language, but rather a consequence of the actions of Dreamtime ancestors who placed languages directly on the landscape. 'Ownership' of language thus correlates with 'ownership' of territory; speakership is a different matter, and languages are not regarded as the property of speakers.

Kimberley languages are not uniform and homogenous entities. Like languages from all over the globe, they show dialectal variation across the region in which they were spoken. There is also considerable idiolectal difference: individual differences not just in speech but also in the linguistic system behind it. Thus the idiolect of the last speaker of Warrwa shows some grammatical differences from her older brother's idiolect.

Different varieties and styles of speech are also associated with different social and interpersonal contexts. In traditional times kinship governed the tenor of interpersonal interactions, including manners and norms of speaking. Many Kimberley languages had a variety of speech appropriate to interactions between persons in avoidance relations, and characterised by a set of vocabulary items not used in everyday speech. At the opposite extreme was the joking relationship, manifested linguistically not by a special vocabulary, but rather in terms of the sorts of things that were said and the manner in which they were said.

Phonologically Kimberley languages are typically Australian. Three vowel systems are found in Pama-Nyungan, Bunuban, and most Nyulnyulan languages. Four vowel systems exist in one Nyulnyulan language (Bardi), and in Jarrakan languages. In Bardi the additional vowel is the mid-back vowel [ɔ]; in Jarrakan languages it is the central vowel [ə]. Many Worroran languages have five vowel systems, though Wunambalic languages have six. Many Kimberley languages have distinctive length for at least one vowel, usually the low vowel. Phonetically long vowels, however, are not always phonemically long: in some languages it is preferable to treat [i:] and [u:] as phonetic realisations of phoneme sequences /iyi/ and /uwu/.

All Kimberley languages distinguish at least five points of articulation for stops and nasals: bilabial, alveolar, retroflex, palatal, and velar. A band of non-Pama-Nyungan languages extending in a narrow belt from the Napier Range through to the Northern Territory border also distinguish dental articulation, involving contact between the blade of the tongue and the upper teeth. The points of articulation are defined in terms both active and passive articulators, and can be grouped into three pairs: peripheral, articulated in the periphery of the mouth (bilabial and velar); laminal, articulated with the blade of the tongue (lamino-dental and lamino-palatal); and apical, articulated with the tip of the tongue (alveolar and retroflex).

All Kimberley languages distinguish at least three laterals, an apico-alveolar lateral, a retroflex lateral, and a palatal lateral. All maintain a phonemic contrast

between the apical tap or trill [ɾ] and the apical glide [ɹ]. The tap/trill generally patterns like the laterals, while the glide patterns like the glides *w* and *y*; there is no reason to group *rr* and *r* together as rhotics, as seems to be the case in some languages of eastern Australia. A lamino-dental contrast is very occasionally found in either laterals or glides.

The order of words and phrases in clauses is free in the sense that variation does not normally affect grammaticality or referential meaning. Many languages, however, have statistically preferred word orders, though these cannot be presumed to be basic. In some languages different word and phrase orders have different stylistic effects: initial NPs may be thematic, and final position in an intonation unit is the natural place for intonational – and thus informational – salience to fall.

Eight parts-of-speech can be distinguished in most Kimberley languages: nominals, pronouns, inflecting verbs, uninflecting verbs, adverbs, particles, interjections, and ideophones. In general these cannot be defined by straightforward morphological criteria such as the ability to occur with certain sets of morphemes, as has been claimed to be typical for Australian languages. Derivational morphemes that reassign words of one part-of-speech to another are comparatively rare. Words of one part-of-speech can usually occur in environments characteristic of another part-of-speech without overt morphological marking.

In most traditional languages spoken in the region nominals are not inflected. Grammatical relations marked by case inflections in eastern Australian languages are generally marked by enclitic postpositions. The typical Kimberley language has about a dozen postpositions, including ergative (in all bar Worrorrnan and Jarrakan languages), instrumental (often the same as the ergative, or based on it), dative, locative, allative, ablative, perlocative, and comitative. Nominal derivational morphemes exist in most languages; typical are associative, negative characteristic, privative, and semblative. Languages of two families distinguish noun classes. Worrorrnan languages have between four and six; Jarrakan languages, two or three. A number of languages have systems of optional noun categorisation, usually by generics.

NPs exist in all languages. Attempts to describe them in terms of part-of-speech categories invariably meet with failure; their description requires recognition of grammatical roles. Word order in NPs in some languages marks grammatical relations. NP discontinuity, widely believed to be rife and unconstrained in Australian languages, is subject to strong constraints in Kimberley languages (including bordering Warlpiri).

Pronouns are either free or bound. Free pronouns in many languages come in two forms, a cardinal form and a distinct possessive form. A variety of person and number systems exist, including, in the Bunuban languages, a system that appears to be unique in the world. Free pronouns usually take the same range of postpositions as ordinary nouns, including the ergative postposition – no Kimberley language is split ergative. A slight wrinkle is that the dative postposition is not usually attached to a pronoun to indicate possession, the possessive form being

used instead. The dative on a pronoun usually carries other meanings, such as beneficiary and recipient.

Bound pronouns in non-Pama-Nyungan languages are prefixes or enclitics attached to inflecting verbs. In most Pama-Nyungan languages they are enclitics added to the first word of a clause or to a catalyst; only in a few Pama-Nyungan languages are bound pronouns exclusively associated with verbs. Unlike free pronouns, bound pronouns usually distinguish subject and object case forms. The person and number systems of the bound pronouns are usually – though not invariably – the same as for the free pronouns. A few non-Pama-Nyungan languages have pronoun affixes that attach to some nouns, usually terms for parts of the body, kin-terms, and/or adjectives.

Almost all Kimberley languages have two distinct parts-of-speech corresponding to verbs of familiar languages such as English: inflecting verbs and uninflecting verbs. Inflecting verbs take inflections – exclusively suffixes in Pama-Nyungan languages, and both prefixes and suffixes in non-Pama-Nyungan languages. Pama-Nyungan languages have smallish sets of inflections marking mainly tense and mood; non-Pama-Nyungan languages have larger sets including affixed bound pronouns indicating person and number of the subject and/or object, as well as suffixes and enclitics marking tense, mood, aspect, and so on. Uninflecting verbs admit few morphological modifications, and never take inflections. Usually they can take one or two aspect-marking suffixes, or a small number of nominal postpositions; the only other morphological modification they generally admit is reduplication. The class of uninflecting verbs is always open, and has hundreds of members. By contrast, the class of inflecting verbs is smaller and often closed; it usually has between ten and a few hundred members.

Two types of verb phrase can be distinguished: simple verb constructions, involving just an inflecting verb; and compound verb constructions, with an inflecting verb and an uninflecting verb. Usually between ten and fifty inflecting verbs can occur in compound verb constructions. In most languages all – or all but one or two – inflecting verbs can also occur alone, in simple verb constructions. Uninflecting verbs are normally found in compound verb constructions, though they occasionally occur alone, without an inflecting verb.

In compound verb constructions the inflecting verb typically serves a categorising function: it assigns the uninflecting verb to one of a dozen or so overlapping categories, according to the nature of the event referred to. Characteristics of the event that are relevant to the system of categorisation include transitivity (transitive or intransitive), temporal characteristics (accomplishment or extendible), and abstract ‘shape’ qualities (such as contact at a point or making/breaking contact of surfaces).

The compound verb construction developed over time, it was suggested, from a construction involving an ideophone and an inflecting verb. The conjugation class systems of Pama-Nyungan languages may be the residue of compound verb constructions that have worn down further over time, the inflecting verb having reduced to a single consonant now interpreted as a conjugation marker.

A recurrent characteristic of verbs in Kimberley languages is that they do not neatly fall into two classes, intransitive and transitive, as widely claimed to be the norm for Australian languages. This is the case for inflecting verbs, uninflecting verbs, and combinations of the two. Transitivity in Kimberley languages is a clausal matter. Of course, there are correlations between verbal and clausal transitivity; these correlations, however, are never deterministic, and verbal units exist that are not restricted to a particular clause type.

Clauses are either nominal or verbal. Nominal clauses express relational meanings of the type expressed by clauses with the copulas *be* or *have* in English: existence of some thing (usually in a particular place); identification of a thing in terms of an alternative designation; characterisation of a thing in terms of a property it displays; and specification of a thing as someone's possession.

Verbal clauses refer to situations involving ongoing activity. Transitivity is a feature of verbal clauses. It is normal for more than two transitivity types to be distinguished. In addition to the usual intransitive–transitive opposition, most Kimberley languages also distinguish ditransitive (prototypically involving the verbs 'give' and 'show') and middle clauses (usually involving the verb 'seek', and often also general verbs of speech). Various other types are also found that have more restricted distribution, such as medio-active clauses in Nyulnyulan languages. These transitivity types can be accounted for in terms of a two-tiered system of grammatical roles: a participant role tier marked by cross-referencing bound pronouns and distinguishing Actor, Undergoer, and Implicated; and a connate role tier marked by postpositions and distinguishing Agent, Medium, and Target.

Transitivity alternations exist in perhaps all Kimberley languages, though they are not marked by consistent morphological or syntactic means. Unlike languages from other parts of the continent, regular derivational processes for 'converting' clauses of one transitivity type to another are virtually non-existent. Indeed, with few exceptions the alternating clauses are equally basic: there is rarely justification for speaking of derivation. Where derivational processes exist, they are usually of limited productivity. In some cases there is no morphological registration of the transitivity alternation; more often, it is indicated by the category assignment.

Various types of complex sentence constructions are found in Kimberley languages. Three main means of combination were distinguished: embedding, where one clause comes to belong to another, and serves a grammatical role in it; coordination and subordination, in which clauses are linked together as either equals or unequals; and framing, where one clause frames another as a stretch of language that might be uttered or thought.

Embedding is rare, and restricted to non-finite clauses, the most common type of which has an uninflecting verb marked by a postposition, and no inflecting verb. Just a few languages have non-finite inflecting verbs (most Nyulnyulan and Pama-Nyungan languages).

The major strategy for clause combination is by coordination and subordination. Clauses so connected can be related semantically in many different ways, which are rarely distinguished formally. Coordination is normally by simple juxtaposition

of two finite clauses, with no indication of how they are related; a few languages have conjunctions that are occasionally used to specify the relation between the clauses. Subordination also involves finite clauses, which usually occur adjacent to one another; it is unusual for one to fall within the boundaries of the other. Subordination can be indicated in various ways. In most non-Pama-Nyungan languages it is indicated by a marker on the inflecting verb of the subordinate clause, occasionally to the uninflecting verb. This is sometimes a postposition specifying the relation of the subordinate clause to the main clause, sometimes a dedicated marker of the interclausal relation, and sometimes a particular mood such as subjunctive. In Pama-Nyungan languages subordinate clauses are usually marked by a complementiser or conjunction.

Framing is usually by a verb of speech, thought, or perception; occasionally another type of verb, expressing a factitive meaning, is used. Of particular interest is a framing construction involving the generic 'say, do' verb, and expressing desire, intention, and some types of causation. The framed utterance is usually directly quoted, though a number of languages also permit indirect quotation.

The major problem in describing complex sentence constructions is that they lack morphological marking. Does a single formal type that admits various interpretations represent a single construction or two (or more) different constructions? In some cases the answer seems to be that there are different constructions, since they pattern differently according to some grammatical feature.

Narratives play an important role in Kimberley Aboriginal cultures, and are one of the major vehicles – along with song and dance – for the codification and expression of significant cultural knowledge. Mythological narratives relate the doings of Dreamtime beings, as a result of whose actions the world came to be in its present state. Other types include personal experience and historical narratives.

Narratives are highly structured texts, showing organisation on various levels. They have a characteristic mode of delivery in terms of short bursts of speech separated by pauses of one or two seconds; one or more of these pause units go together to form a line. On another level, they are structured as a sequence of episodes, each of which has the ternary structure Initial State, Events, and Final State. Narratives do not occur in social vacuums. They are performed in interactive contexts, which are also structured in terms of turn-taking and other features. Unfortunately, little is known about these interactive contexts in either traditional or modern Kimberley Aboriginal societies.

Grammar is not just a system of rules for the construction of acceptable sentences that speakers obey blindly. Grammatical structures have meanings, and speakers choose among them to make meanings. Different ways of saying things – through different lexical and grammatical choices – convey different meanings, and different perspectives on the world. They can also have different stylistic and rhetorical effects. We discussed three cases illustrating this claim.

First, we showed that NP discontinuity in Australian languages is not as unconstrained as usually reported. It is used by speakers of Gooniyandi, and quite likely other languages, as a means of solving a textual problem: how to deal with

a local thematic discontinuity in such a way that it is not assigned more or less prominence than it deserves.

Second, all ergative non-Pama-Nyungan languages permit omission of the ergative marker on the Agent of a transitive clause. This does not happen at a speaker's whim, but is a meaningful grammatical option. In Gooniyandi omission of the ergative postposition on an Agent NP signifies that the Agent is low in agentivity; in Warrwa, however, it signifies that the Agent is both expected and low in agentivity.

Third, it was shown that clauses are framed – represented as quotations – for reasons, and not just because they were said or thought. In narratives, framing a clause as a quote serves a highlighting function: the situation it refers to is highlighted as especially significant either to the plot or to the scene. Occasionally, it serves an authorising function: to lend authority to what is said by citing the speaker's credentials.

### 13.2 Gesture and sign languages

Observe anyone speak for a few minutes. Unless their hands were occupied with some other task, it is unlikely that they did not gesture with them at some point, or alternatively with another body part, probably their head. The same is true for speech in any Kimberley language; it is almost always accompanied by manual and other bodily gestures.

Some gestures are conventionalised. There are conventionalised pointing gestures that are widely used by Kimberley Aboriginal people that are somewhat different to those used by European Australians. Perhaps the most widespread and frequent pointing gesture employs the lips, protruding them somewhat and directing them with a brief movement of the head. Manual pointing is also used, though this is normally effected with the middle finger rather than the index finger.

But not all gesturing is conventionalised. As they speak, people often produce gestures that illustrate some aspect of what they are saying, elaborating on the spoken utterance. To illustrate this – and conventionalised gestures – we provide below a transcription of a very short Warrwa text, of just under half a minute in duration. This story was narrated by Maudie Lennard, and recorded on videotape. The conventions adopted in Ch. 11 are employed here, except that the free translation is given along with each sentence, and no literary translation is given. For each sentence a prose description is given of the accompanying gestures. All gestures were made with the right hand; the left hand was held almost motionless throughout the entire telling, grasping the speaker's dress just above the right knee.

#### *The old Derby jail*

Warrwa, told by Maudie Lennard to William McGregor, Derby, 1999.

- (1) *kinya-mirri nyinka-n/ bidiwarri nyinka-n-ka/ yunguru/*  
 this-EMP this-LOC hole this-LOC-EMP round  
 'Here, by this hole, was a round thing.'

Speaker moves her right hand down to ground beside her leg and begins tracing a circle in a clockwise direction simultaneous with the start of the word *bidiwarri* ‘hole’. She does this with the middle finger, which is bent in direction of palm at an angle of about 135 degrees to it; the other fingers form approximately a plane with the palm; see Figure 13.1. The final word *yunguru* ‘round’ occurs following a pause of about 1.5 seconds, during which the speaker completes one full circle; she continues tracing around the circle during the utterance of this final word, lifting her hand from ground at end of the word.

- (2) *jangajanga-wudany i-nga-na/*  
 chain-COM 3minSUB-be-PA  
 ‘There were chains on it.’

At the beginning of the utterance the speaker starts drawing lines radiating out from the circumference of circle; two such lines are completed during the utterance (Figure 13.2).

- (3) *jangajanga-ngany/ i-nga-na-yarri nyinka-n/*  
 chain-INST 3minSUB-be-IMP-REL this-LOC  
 ‘There were chains on it there.’

Speaker continues drawing lines radiating out from circumference, working in an anticlockwise direction (Figure 13.3).

- (4) *kinya-ngany jangajanga nyinka-n/ ø-ŋgi-rr-a-wula-na-yirra*  
 this-INST chain this-LOC 3SUB-PA-aug-TR-tie-IMP-3augOBJ  
*nimidi/*  
 leg  
 ‘They tied them up there by the leg with these chains.’

Speaker completes the radial lines, and lifts her hand from the ground in the middle of the first intonation unit. She then moves her right hand to the lower leg at about the time of uttering *nyinkan* ‘here’; she clasps her leg near the ankle during the second intonation unit (Figure 13.4), releasing the grip at the completion of the word *nimidi* ‘lower leg’.

- (5) *marlu yidany-ngana/ wuba-mirri kan? kan-kanul/ mangarri-ngana*  
 not long-ALL little-EMP tha... there-ABL food-ALL  
*kalbu/*  
 up  
 ‘It wasn’t far, only a little way to go up to the food.’

By the beginning of this utterance the speaker has moved her hand from the lower leg to a position alongside it, just above the ground. During the first tone unit, she slowly raises her hand, and points to a position on ground perhaps a metre or so



distant, using her index finger (Figure 13.5). At this point she moves her hand in a slight circular motion. Then with a jerky movement she raises her hand slightly higher during the period of silence between the two tone units (Figure 13.6). On uttering *wuba* 'little' the middle finger replaces the index finger as pointer; the middle finger is held in approximately the plane of the palm, the other fingers slightly curled downwards, in the direction of the palm and ground (Figure 13.7). The speaker utters the syllable *kan*, then immediately drops her hand downwards almost to the ground; simultaneously she gazes down in the same direction. Pointing downwards she utters *kankanu* 'from there', then raises her hand again to about previous position, simultaneously raising her eyes to look in about the same direction. She appears to be measuring the distance between intersections of the two terminal points with ground. At beginning of *mangarri* 'food', the speaker moves her right hand to her right leg, resting it below her left hand.

- (6) *ø-ŋgi-rr-wani-na-da kinya-n wamba/ mijala/*  
 3SUB-PA-aug-sit-PA-HAB this-LOC man sit  
 'The prisoners used to remain there, sitting.'

During this utterance both hands remain at rest on the speaker's legs.

Gestures play an important role in this text, and convey information not conveyed in the spoken utterances. For instance, the radial orientation of the chains with respect to the round thing is depicted by gesture, but not described in speech; so also is the length of the chains indicated by gesture, and imprecisely specified in speech as short.<sup>1</sup>

Gestures and speech are coordinated, though with some discrepancies. There is a rather lengthy pause in line (1) before *yunguru* 'round' corresponding to the time required to complete the circular gesture; here the speaker seems to have held up her speech in order to accommodate the gesture. Beginning with line (2), the speaker makes a series of radial gestures that are continued throughout line (3); these utterances describe the attachment of the chain to the round thing. The radial gestures are completed somewhere in the middle of the first tone unit of line (4); here there is an apparent disparity between gesture and speech, the gestures lagging behind speech, which has moved on to the manner of tying up the prisoners. Coordinated with the utterance of *nyinkan* 'here' is a gesture in which the speaker grasps her right leg; this she holds for the remainder of the sentence. During line (5) the speaker indicates by gestures the distance the prisoners were able to move on the chains. The switch of index finger to middle finger as pointer at the beginning of the second tone unit in this line presumably marks the beginning of a new gesture. The fact that the speaker coordinates her gaze precisely with her hand movements during line (5) suggests that *kan* 'that' was not a speech error, although from the spoken words alone it looks like an error. In the final tone unit of (5) the speaker moves her hand to a position of rest, where it remains throughout the following line. After a pause of one second duration





*Figure 13.1* Gesture in line (1) of Derby jail text, Maudie Lennard (© William McGregor).



*Figure 13.2* Gesture in line (2) of Derby jail text, Maudie Lennard (© William McGregor).



*Figure 13.3* Gesture in line (3) of Derby jail text, Maudie Lennard (© William McGregor).



*Figure 13.4* Gesture in line (4) of Derby jail text, Maudie Lennard (© William McGregor).



*Figure 13.5* First gesture in line (5) of Derby jail text, Maudie Lennard (© William McGregor).



*Figure 13.6* Second gesture in line (5) of Derby jail text, Maudie Lennard (© William McGregor).



*Figure 13.7* Third gesture in line (5) of Derby jail text, Maudie Lennard (© William McGregor).

following (6), the speaker continues in English, saying ‘Not too long, maybe that far I think’, simultaneously pointing rightwards with her right index finger.

This brief text reveals clearly that gesture and speech are orchestrated together in meaning-making. Gesture does not simply take a free ride on the back of language, and is not entirely subordinated to it – gesture can be used to express meanings that are not explicitly stated in language. It also shows that one can be misled in their interpretation of an utterance if they ignore gesture.

Many, perhaps all, Kimberley groups also have conventionalised signs for various notions. There are usually signs for mammals, birds, reptiles, and so on, that might be used in contexts where speech is unsuitable, for instance when stalking an animal, or when communicating over long distances. Signs for negation, for the question ‘what’s going on, what’s up’, for basic actions such as eating and copulating, and for basic person categories such as man, woman, child, are also commonly found. Kinship signs are also widespread; these are normally formed by touching that part of the body considered to be indicative of persons in the particular kin-relation to the signer.<sup>2</sup>

In some parts of Australia sign languages are found which have large codified vocabularies of hand signs that correspond closely to the signs of the spoken languages. These systems are used independently of speech, usually in contexts where speech is proscribed for social reasons. For instance, in some places widows observe a ban on speech for some months after the death of their husband; and initiates sometimes go under speech bans at certain stages of initiation.<sup>3</sup> Sign languages were reportedly used by Nyikina and Kija widows (Mathews 1900), though they seem to have gone out of use. Widows’ sign languages are highly elaborated and still in use in the northern central desert region, amongst many groups including the Warlpiri and Ngardi (Kendon 1988), a number of who presently reside in the Kimberley region. The signs in these systems correspond with words of the spoken language, unlike gestures, that do not represent words. Plates 13.1 and 13.2 show two signs from Warlpiri sign language. According to Kendon (1988: 229–61), many grammatical morphemes of Warlpiri – both free and bound – also have representation in signs; bound morphemes usually go in the same relative positions in sign language and speech. Absent from the sign language, however, are representations of suffixes marking the participant roles and locative case, as well as tense suffixes on verbs; the catalyst also goes entirely without representation in the sign language.

### **13.3 Applications of linguistics to modern Kimberley Aboriginal contexts**

The primary orientation of this book is descriptive – to describe the nature and uses of the languages of the Kimberley, and how they are related to one another. For many academic linguists description is adequate justification in itself, in that it contributes to a fuller picture of the linguistic diversity of the world, and expands the data-base on which linguists can develop their theories, typologies, and so forth. To many others – for example to many speakers of the languages and



*Plate 13.1* Sign for NGAPA ‘water’ in Warlpiri widow’s sign language. ‘Hand taps center of upper chest twice’ (Kendon 1988: 102) (© Adam Kendon).



*Plate 13.2* Sign for WIRLINIYI ‘hunting’ in Warlpiri widow’s sign language. ‘Side of active hand taps palm of subordinate hand twice’ (Kendon 1988: 109) (© Adam Kendon).

to the wide apathetic Australian public – these academic considerations may be of little concern or interest. Why bother to describe these ‘exotic’ languages that are spoken by just a few old people, and that will doubtless be no longer spoken within a few decades?

One response is that the work of descriptive linguists also has uses to speakers of endangered languages and their descendants. It can contribute something to the resolution of practical problems and conflicts arising at, and as a result of, the interface between Aboriginal groups and mainstream Australian society. Indeed, it can be argued that good linguistic description and thorough, accessible documentation through the gathering and compiling of extensive representative

corpora of data comprising various genres of speech, ages, genders, topics, and so on, form essential components in the resolution of many of these problems. It is not, though, the panacea for all language-related ills. Problems arise in social and personal contexts, the nature and circumstances of which cannot be ignored or downplayed. Solutions that are linguistically optimal are not always practically effective. This underlines the need for applied linguistics, a field of investigation that stands at the interface between description, practice, and theory, and draws on a variety of disciplines other than linguistics, including psychology, sociology, and pedagogy.

What are some of these practical language-related problems, and what and how can linguists and applied linguistics contribute? Here are a few such problems to give a flavour of their variety and complexity.

- What, if anything, can be done about the loss of traditional languages? Can or should anything be done to arrest the process of shift from speaking traditional languages to speaking Kriol or Aboriginal English?
- What can be done to reclaim or renew languages that are no longer spoken?
- What should be the respective roles of Kriol and English in the classroom?
- Should literacy in Kriol be taught in schools that have large numbers of Aboriginal students who are native speakers? Should it be the (or a) medium of instruction?
- What should be done to teach English effectively as a second language in schools where Aboriginal children are not native speakers of a dialect of English?
- Is it useful to teach adult speakers of traditional languages literacy in the languages, and if so, how can it be effectively taught?
- How can a practical orthography be designed for a previously unwritten language that is acceptable to speakers?
- What can be done to facilitate communication between Aborigines and whites, especially in contexts such as health, tourism, welfare, government matters, and the law (courts, police, land claims)?

Such problems are difficult, and many need to be addressed in the contexts of particular communities. It is beyond the scope of this book to deal with any of them in depth. Instead, in the remainder of this section we describe some recent language-related initiatives in the Kimberley context: school programmes in traditional languages (§13.3.1), and translation and interpreting (§13.3.2). Along the way we will discuss some of the relevant considerations from an applied linguistics perspective.

### *13.3.1 Language programmes in schools*

Many Kimberley Aborigines are concerned about the loss of their traditional language heritage. This concern is embodied in this book's epigraphs, and the

following quotes from Hudson and McConvell (1984: 37): Topsy Chestnut – ‘The main thing is to revive our languages, and keep our languages alive’; George Dingmarie – ‘We’re still battling to put the kids on the right track – we’ve got to follow that Gija in the right way’. The practical problem is what can be done.

Schools can play a role (after all, they played some role in the loss of traditional languages in many places), and many Aboriginal people in the Kimberley expect them to do so. Hudson and McConvell (1984: 89) agree that schools have a ‘responsibility for keeping Aboriginal languages strong’, and the KLRC has since its inception taken an advisory and facilitatory role in language programmes in schools. But as they also point out, it is not exclusively the schools’ responsibility, and acting alone they will not be successful; communities also have a responsibility and a role to play in ensuring the continuation of traditional languages.

A considerable number of programmes have been implemented in Kimberley schools over the past three decades, most with very short lives. In fact, programmes emerge, metamorphose, and disappear with great rapidity. In what follows I do not attempt to present a comprehensive and up-to-date picture of the situation in the Kimberley region – it would be outdated by the time the book was published! Rather, I begin by outlining a scheme for classifying programmes (§13.3.1.1); then I attempt to provide a broad survey of recent programmes in Kimberley schools, to provide the reader with some idea of what has been attempted and what still remains to be done (§13.3.1.2); finally, I discuss some general considerations arising from the discussion of the first two subsections (§13.3.1.3).

### *13.3.1.1 Types of language programme*

A language programme must be tailored to the unique circumstances of the language and community in which it is spoken, and the desired outcomes, among other things. Nevertheless, it is useful to classify programmes into a small number of general types according to the broad features of the language situation, and the broad goals of the programme. Different schemes have been proposed by different writers, and terminology often conflicts. The scheme proposed by McConvell (1986) specifically for the Kimberley context has been fairly widely used in the region, and is suitable for our purposes. Four types of programme are distinguished:

- (a) **BILINGUAL EDUCATION** This is suitable for Aboriginal languages that are healthy, and are the mother tongue of the children when they enter school. Bilingual education programmes might aim to reinforce and extend the children’s skills in the traditional language, or teach literacy in it; the traditional language might be used alongside English as a medium of instruction. These are referred to as *language maintenance* programmes in the Australian Indigenous Languages Framework (AILF).
- (b) **LANGUAGE MAINTENANCE** These are programmes suitable for weakening languages, languages that are not spoken fluently by children, who are native

speakers of Aboriginal English or Kriol. Because the language is regularly used in the community the children typically have a reasonable level of understanding and some speaking ability in it. The programme could aim at improving children's knowledge of the traditional language, and skills in speaking or understanding it; fluency might be achievable. Such programmes go under the term *language revitalisation* in the AILF.

- (c) **LANGUAGE RENEWAL** These programmes are suitable for dying or dead languages. These are not spoken fluently by either the children or their parents, and the children have effectively no speaking control, a very limited understanding, and small and restricted vocabularies. Renewal programmes effectively have to teach the language from the bottom up, and can presume little. Without an enormous investment of class time only a limited understanding and control of the traditional language could be expected. The AILF uses the terms *language renewal* and *language reclamation* depending on whether the language is dying or dead, in which case historical sources have to be relied on.
- (d) **LANGUAGE AWARENESS** These are types of social studies programmes in which the children are taught about the (or a) traditional language, or about Aboriginal languages generally; they do not aim at imparting speaking control. Awareness programmes could be implemented in any type of language situation; they are also suitable in schools where the pupils come from diverse language backgrounds. The AILF also uses the term *language awareness* for programmes that teach about languages, but restricts it to situations in which it is impossible to learn and use the language (e.g. if it has no speakers).

Notice that there is a major difference between language programmes of types (a)–(c) in which some level of language proficiency is either presumed or targeted, and type (d) programmes which focus on knowledge about the language rather than skills in its use. The former types are sometimes grouped together as language learning programmes; they differ among themselves in terms of what needs to be learnt, from virtually nothing in type (a) bilingual education programmes, to almost everything in type (c) language renewal programmes, with type (b) language maintenance programmes occupying basically any position.

This scheme, it must be stressed, is an idealisation; programmes do not always fit neatly into the categories, and the difference between the types is not always clear-cut in terms of actual classroom practice. But the scheme does highlight the need for some appreciation and understanding of the language situation in the community, and that the situation imposes some constraints on the language programme that can feasibly be introduced in a school, its development and implementation. Indeed, the more sociolinguistic information of this type the better!

#### 13.3.1.2 *Survey of language programmes in Kimberley schools*

Bilingual education programmes are possible in just a few Kimberley schools. One is Birlirr Ngawiyiwu Catholic School at Yaruman, which has run a bilingual

programme in Jaru and English since its establishment in 1985. McKay (1996: 55–67) provides a description and evaluation of the programme as it was in the mid-1990s. One hour per day was devoted to Jaru activities, though the language was used at other times as well. The language activities, which were run by Jaru speakers, focussed on literacy skills; out-of-school activities such as bush trips were also run in connection with the language programme. Since then the programme seems to have run into a number of problems. A bilingual programme in Kukatja and English has been in operation for some years in the Luurnpa Catholic school at Wirrimanu.

Language maintenance and renewal programmes have always been more numerous. The Catholic Education system has the most extensive network of language programmes in the Kimberley, and supports a Jaru programme in Warlawurru Catholic School (in Red Hill Community on the outskirts of Halls Creek), a Kija programme in the Ngalangangpum School (in Warmun community), a Ngarinyin programme in the Wanalarri Catholic School (Gibb River), a Miriwoong programme in the Kununurra Catholic School, and others. The Miriwoong programme in the Kununurra Catholic School involves two one-hour classes per week, organised by the MDWG. A policy for language education was developed in 1986 (Catholic Education Office 1986/1992). It seems, however, that the implementation has not always gone in accordance with the ideals of ‘two-way’ learning enshrined in the policy (McConvell 1986: 119, 1994: 249–50).

Independent community schools have usually incorporated, or attempted to incorporate, language maintenance programmes in the curriculum. Kulkariya Community school in Noonkanbah has made a number of attempts to set up a Walmajarri programme since its establishment in 1978; these have met with mixed success. Another Walmajarri programme has been introduced in the Yakanarra Community School on Gogo, with assistance from Karrayili Aboriginal Education Centre. Yiyili Aboriginal Community School has given strong support to a Gooniyandi programme; this has gone through many ups and downs since 1982, and seems to have now folded up. At least in the early years a bilingual programme in Kriol and English also operated in this school.

The Western Australian Department of Education has a long tradition of resisting Aboriginal language programmes in schools, and it was not until 1993 that a framework for their introduction was developed. Prior to that date, any initiative was entirely at the instigation of the school and community, and could expect no support from the department. Even now the Department of Education has no ongoing commitment to any programme. Government schools that have made attempts to introduce some type of language programme in recent years include Bayulu (Gooniyandi, Walmajarri), Bidadanga (Walmajarri, Nyangumarta, Karajarri, Mangala, Yulparija), Broome (Bardi, Yawuru), Fitzroy Crossing (Bunuba, Gooniyandi, Walmajarri, Wangkajunga), Halls Creek (Kija, Jaru), Kununurra (Miriwoong), Muludja (Gooniyandi), One Arm Point (Bardi), and other towns and communities in the Kimberley. None have endured for long, and it is difficult to find reliable information on them. Among the few published



descriptions of specific language programmes are Wrigley (1994) (Bayulu Primary School) and Heaven (1986) (La Grange Primary School); both are now quite outdated.<sup>4</sup>

Inspired by the New Zealand Te Kohanga Reo movement, the Western Australian Department of Education recently mooted the idea of 'language nests' for some communities where the traditional language is weakening. The idea is that very young children – of preschool age, when language acquisition faculty is at its peak – are placed in care of older adults who are fluent speakers. They speak to the children only in the indigenous language; the expectation is that by the time the children reach school age, they will speak it.

The idea was taken up by some communities in the Fitzroy Crossing and Halls Creek areas. Three language nests were introduced in the late 1990s, under seedling support from the Department; these were in Bunuba (Fitzroy Crossing), Kija (Halls Creek), and Gooniyandi (Koongie Park, near Halls Creek). The nests were run jointly by the KLRC and communities, and seem to have been popular both with the children and the teachers, who see positive indications of success. Thus Patsy Bedford, who is involved in the Bunuba language nest has said 'The language nests are making our language alive again'. Reduction in funding resulted in the closure of two of the nests; now only the Bunuba nest survives, partly because it has been incorporated into the Junjuwa childcare facility, which contributes to the running costs.

A language awareness programme has been taught for some years in Nulungu Catholic College in Broome as a part of its Aboriginal Studies programme, which also includes units on contact history, bush foods, and so on. The language awareness component focusses on Kimberley Aboriginal languages, see Familiari (1994) for a short (now outdated) description of the programme. Purnululu Association School at Frog Hollow (Wurrerenginy) has a trilingual language awareness programme in Kija, Kriol, and English.

### *13.3.1.3 General considerations*

To wind up our discussion on language education, it may be useful to draw out some general considerations that should, in ideal circumstances, be taken into account when deciding on and implementing a language programme. They are the types of thing that an applied linguist would take into account if their expertise was sought (it rarely is). Some of these may seem rather academic; in my opinion, however, a bit of thought given to them could make the difference between a successful programme and a failure. On the other hand, it is not suggested that the implementation of a language programme should be held back until all such considerations are satisfactorily resolved – no programme would ever start.

First, and perhaps most importantly, community involvement and control is essential in all phases: from the outset, in determining the need for a programme and its goals, and subsequently, in planning and implementing it. Many programmes have failed because the community was disregarded somewhere along

the way. The issue of control is a particularly problematic one, since it depends on having the appropriate skills, knowledge, and resources, which are not in the possession of any single individual or group. It also invokes the question of responsibility. Senior community members are typically the ones with language expertise, but lack teaching skills and literacy; younger adults are more likely to be literate, but in many communities are less fluent speakers. The school and staff are likely to have access to resources, but no knowledge of the language.

The success of a programme depends in part on sorting out and apportioning control and responsibility in a satisfactory and acceptable way. It also depends on the level of commitment and enthusiasm of teachers, teacher aides, and community members involved in teaching; staff turnover is high in Kimberley schools, and many programmes have folded up on the departure of a teacher or teacher aide, or through dwindling involvement of the speakers.

Second, clear and feasible goals need to be set for the programme. The level of language competence aimed at needs to be realistic, given the circumstances of the language, the knowledge of the children and adults, and the available resources and expertise.<sup>5</sup> Once goals have been decided on, strategies for achieving them need to be determined. Among other things, this involves giving due consideration to the place of the language programme within the overall curriculum, and how much time it will be necessary to devote to it. For students who know only a few words to achieve fluency in the language will require a considerable investment of time, leaving less time for other activities. Thought must be given to literacy, to whether it should be a goal, and otherwise what its place should be within the programme. Of course the goals are not immutable, and should be reviewed, monitored, and where necessary adjusted.

Third, consideration needs to be given to the resources available and support necessary for success of the programme. A programme costs money to run – for payment of language teachers from the community, for purchase of necessary materials and equipment, and for funding Aboriginal teacher aides to attend training courses, among other things. Funding is always a problem for Aboriginal language programmes in Kimberley schools, and its continuity can never be presumed; the demise of many programmes can be attributed to funds drying up after initial seeding.

Teaching materials and other resources (e.g. dictionaries, text collections) for most languages are scarce, and often they will need to be produced specifically for the programme – an expensive process. The KLRC has produced resource material in a number of languages, including books, videos, and interactive CD-ROMs. While these materials promote recognition of the languages, their pedagogical value is uncertain, and testing and development of resources for the classroom is needed. Linguists can make an important contribution to resources in the shape of language documentation and description; even though this material is unlikely to be suitable for use by teachers or in the classroom it can provide a foundation for the development of such materials by applied linguists or teacher linguists.

Fourth, adequate planning, training, and knowledge are indispensable. A good curriculum needs to be designed, and lessons planned carefully. The teaching skills required in language classes are often underestimated, and few community members or Aboriginal teacher aides have them. The same goes for many white teachers as well, who rarely have much knowledge of language teaching methods, and even less of the traditional languages. In-service courses are one way of resolving this problem, as is specialist advice from organisations such as the KLRC and MDWG; the KLRC applied linguist, Siobhan Casson, is currently attempting to inculcate realisation of the need for specialist language teaching skills in Halls Creek schools. Other ways of dealing with the problem include provision of LOTE training courses to Aboriginal language teachers (some such courses have been run in Pundulmurra College in Port Hedland), and employment of teacher linguists (none are currently employed in Kimberley schools).

Fifth, planning and development of a viable language programme is facilitated by good empirical data on the language situation of the community, and a good theory of language choice and shift, that has been subjected to empirical testing. Without these we can have no adequate understanding of why language shift occurred in the first place, and what outcomes might be feasible in regard to the language situation as a whole, in relation to the speakers' everyday habits of language use. Unfortunately neither is available for the Kimberley situation.

Finally, regular monitoring and evaluation of the effectiveness of programmes is important. These processes have tended to be irregular and informal, resulting in the situation that programmes are not effectively reviewed, and there is no solid basis on which revisions can be based. Part of this monitoring and evaluation could be evaluation of students – that is, testing of their knowledge or proficiency in the language. This has been a contentious issue, and Aboriginal people are sometimes uncomfortable with the idea of grading students. One possible way around this problem is to replace grading by outcomes-based learning, in which students learn at their own rate, progressing to higher levels as they achieve the requirements of the lower level. In any event, without testing of the students' knowledge or proficiency in the language, the level of success of the programme can only be guessed at, and it will not meet professional standards. This raises the issue of establishing appropriate assessment procedures and standards of proficiency.

The discussion of this section has highlighted some of the practical difficulties facing introduction of language programmes in Aboriginal languages into Kimberley schools, and some of the considerations that need to be taken into account, linguistic and non-linguistic. Language programmes can only be one component of the strategies adopted for the survival of endangered language, and serious thought must be given to the question of what can reasonably be expected; also important is to gain some understanding of the desires and expectations of members of the community – what exactly do they have in mind when they say that they want to see the language 'kept alive'? A host of considerations arise in this domain that do not arise in the context of developing programmes for

teaching major languages such as Mandarin Chinese and French as second languages in Australian schools, where the fate of the language is not at stake.

### 13.3.2 *Translation and interpreting*

The likelihood of miscommunication in interactions between Aborigines and whites in the Kimberley should be obvious by now: many Kimberley Aborigines have limited understanding and speaking control of Standard Australian English. In particular, few control 'high English' – the specialised jargons of legal, medical, and administrative discourses, many of which are difficult enough for whites from other walks of life to comprehend. Misunderstandings also arise as a result of 'false friends' – words shared between Aboriginal English and/or Kriol and Standard Australian English but which have different meanings. Examples include kin-terms like *mum* and *brother*, that are often used by Aboriginal people like the corresponding terms in traditional languages; *mum* could also include aunts (mother's sisters) as well as the biological mother (Tsunoda Tasaku, pers. comm.). Another source of misunderstanding results from the different communicative norms and expectations Aborigines and whites operate with, including different strategies for requesting information, rejecting demands, and so on.

The importance of conveying information accurately in court proceedings, police interviews, doctor–patient interviews, health leaflets warning of dangers of sexually transmitted diseases, and so on is obvious. Clearly this will be more effective if each participant can express themselves and receive information in their own native language. Thus the need for putting a message conveyed in the language of one participant into the language of the other – for example, to put the doctor's words into the language of the patient, and vice versa. To do this is the job of a translator (when the message is written) or interpreter (when it is spoken). Access to these services has been recognised for some time as a basic human right: Article 14 of The International Covenant on Civil and Political Rights 1966 states 'everyone shall be entitled to ... have the free assistance of an interpreter if he cannot understand or speak the language used in court.'

The need for an organisation to coordinate the activities of interpreters and translators, arrange for suitable interpreters for particular jobs, provide training, and so on has been promoted for many years by Aboriginal people in the Fitzroy Crossing region, including Olive Knight, Tommy May, Topsy Chestnut, and Annette Kogolo. One recommendation of the Pilot Study that led to the establishment of the KLRC was that the organisation take on such roles (Hudson and McConvell 1984: 73–5, 90).

While the Centre did follow up this recommendation to a degree, it seems that the primary foci of activities over the first decade and a half were in the educational domain and language documentation. A feasibility study conducted in Kununurra in 1999 by the MDWG led to the establishment of the Kimberley Interpreting Service (KIS), a joint initiative of the MDWG and the KLRC. KIS, which now has its office in Broome, coordinates translation and interpreting



*Plate 13.3* KIS interpreters Olive Knight (left) and Gail Smiler (right) with former KIS Co-ordinator Tea Dietterich (centre) at the first Aboriginal Interpreter Service Presentation and Workshop in Broome, held at the Mamabulanjin Resource Agency on 13th November 2001 (© Kimberley Interpreting Service).

activities throughout the entire Kimberley. Currently there are more than twenty-five NAATI (National Accreditation Authority for Translators and Interpreters) accredited interpreters in the Kimberley, and KIS serves (among other things) as a booking service, providing clients with interpreters suitable for the task. Nine languages are represented, Kriol, Kija, Jaru, Walmajarri, Bunuba, Gooniyandi, Mangala, Kukatja, and Murrinh-Patha. KIS also organises professional development courses and workshops to keep interpreters abreast of new technical terminology, and types of interpreting such as telephone interpreting. It also organises training courses for new interpreters in collaboration with educational institutions such as the Batchelor Institute of Indigenous Tertiary Education.

Use of translators and interpreters requires time, planning, money, and education. Many whites have not appreciated the need for translators and interpreters, considering them either unnecessary ('Aborigines can all understand English') or as an obstacle to their work ('An interpreter would interfere with my job or slow me down'). The truth of the matter is that an enormous amount of effort, time, and money has been wasted in hospitals, courts, and police stations for *not* using interpreters, or as a result of using untrained persons. Thus another important activity of KIS is raising awareness of the possibilities and advantages of translation and interpreting in both white and Aboriginal communities, and providing information on how to use interpreters effectively. Aside from producing newsletters (available on the KIS website, [www.wn.com.au/mirima](http://www.wn.com.au/mirima)), videos, press releases, brochures, and other promotional material, KIS has been engaged

## CONCLUSION



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in negotiations with organisations that could or should be using interpreters and translators.

Translation and interpreting between Aboriginal languages and English presents a range of difficulties and special features that make it quite different from translating and interpreting between European languages. Because of cultural differences between traditional Aboriginal societies and modern Australian society corresponding terms do not exist for much technical jargon of white institutions. The translator or interpreter will need to devise ways of explaining concepts unfamiliar to the Aboriginal client, and perhaps develop new terminology in the traditional language (see also §9.3). Moving the other way, a translator or interpreter may be faced with equally intractable problems in dealing with words and concepts of traditional languages that have no counterpart in English. Particularly serious difficulties of this nature could arise in translation of native title testimony. Differences in communicative strategies and norms also give rise to difficult problems for translators and interpreters. A direct question might cause offence; what should the interpreter do with it – rephrase it less directly, or leave it as it is?

Another problem concerns choice of an appropriate interpreter for an Aboriginal client. Age, sex, family background, and so on can be important considerations;



so also can the kin relationship between interpreter and client. On one level these might be seen as relatively easily resolved practical difficulties. But they highlight a more general problem: the difficulty in finding people with the necessary competence in the Aboriginal language and English, and the small pool of NAATI accredited interpreters. To find someone who is both acceptable according to the interpersonal requirements, and competent in both languages, may be impossible. For instance, a major problem that has arisen in land claim proceedings is that all available interpreters are themselves claimants, and so disqualified from working for the court (Alan Rumsey, pers. comm.). With more extensive use of translators and interpreters, many situations will arise where no suitable interpreter or translator is available.

There is a long way yet to go in white acceptance of the need for translators and interpreters in interactions with Aboriginal people, and in the provision of satisfactory translating and interpreting services to Aborigines in the Kimberley (as elsewhere in the country). The services available to Aborigines lag well behind services available to many immigrant groups, which have benefited to a much greater extent from government funding. KIS is in fact the only general purpose Aboriginal language interpreter service in Western Australia, and its future funding is quite insecure. On another level, translation and interpreting between Aboriginal languages and English raises many interesting problems for translation theory.

### **13.4 Kimberley languages in a temporal perspective**

#### ***13.4.1 The past***

Many changes have occurred in the language and cultural situations over the past hundred and twenty or so years of intensive white occupation of the Kimberley region. During this period both language and cultural landscapes have changed markedly. Today no one lives a traditional lifestyle, in isolation from the dominant European-based society; nor does anyone speak in a way that has not been influenced in some way by English. Many groups were completely or almost completely decimated either by deliberate and systematic extermination by whites, or indirectly as a result of overwork and brutalisation by pastoralists and pearlers, and by the diseases they brought with them. Some languages disappeared as a result of the death of their entire speech community. Other languages became moribund over longer periods of time, not as a result of the death of the entire speech community, but through shifts in speech habits, from speaking only traditional languages to ultimately (in most parts of the Kimberley today) speaking some English-based variety in most contexts. We discussed some of the reasons for the shifts in speech habits in §3.6. Large-scale demographic changes occurred over this period, as depicted in Map 4.

We can reconstruct an approximate and tentative picture of the linguistic and cultural situation of the region as it was at the time of first contact, when around

sixty languages were spoken by the inhabitants of the greater Kimberley region, and were used in everyday conversation and in a variety of other functions and domains. It is much more difficult to reconstruct the pre-contact histories of the languages and the peoples. We cannot assume that the situation as of first contact with Europeans represents the situation of 1,000 years ago, much less 10,000 or 50,000 years ago. As elsewhere in the world, demographic changes occurred over time, and quite likely shifts in the speech habits and language repertoires of peoples. The Kimberley coastline lay much further out to sea 18,000 years ago, at the peak of the last Ice Age; as the seas advanced, social groups must have relocated themselves. Furthermore, in the millennia of human inhabitation of the region it is not improbable that languages and populations have died out leaving no trace in the form of modern descendants.

Reconstructing Kimberley prehistory is a fascinating and worthwhile intellectual enterprise. It is one in which linguists, anthropologists, archaeologists, and geneticists can fruitfully collaborate to arrive at a more complete picture of the prehistory of the region, and situate it in the wider perspectives of Australian and Pacific prehistory. Each discipline has its own methods of reconstructing the past, and to the extent that they agree we have stronger evidence for the reconstructions. Moreover, the partial stories each can contribute can be fleshed out into more comprehensive pictures by integrating findings of the various disciplines.

### *13.4.2 The present*

In various places in this book – especially Ch. 3 – we have attempted to give a description of the present state of Kimberley languages. We have seen that a number of languages have become moribund in recent years, and that few are being learnt by children. Our focus has been primarily on describing the grammatical and discourse resources and features of the traditional languages, and giving some idea of how they were and are spoken by fluent speakers. This involves a certain amount of idealisation. We have not dealt in much depth with the way Kimberley Aboriginal people speak to one another in everyday contexts; indeed, we have limited knowledge of modern conversational and discourse practices. Little is also known about acquisition of either traditional or post-contact languages – this is an important topic for future research. As remarked in §3.6, however, a few languages seem to be being learnt by children – in rare cases as their primary communication code. In many places children have some knowledge of traditional languages; indeed, it seems that in the past twenty years or so children's knowledge and use of certain traditional languages has not significantly reduced, and may even be on the increase.

Where children are acquiring a traditional language, there are often differences between their speech and that of the oldest adults who are fully fluent speakers. Often the speech of children shows grammatical simplification compared to the speech of fluent adults. The Gurindji of 5–8 year old children in Kalkaringi and



Table 13.1 Two Gurindji case suffixes new and old

Cases	Children's Gurindji	Traditional Gurindji
ERG	- <i>ngku</i> following a vowel  - <i>tu</i> following a consonant	- <i>ngku</i> following a vowel in words of two syllables - <i>lu</i> following a vowel in words of more than two syllables - <i>tu</i> after an alveolar consonant - <i>ju</i> after a palatal consonant (and others)
ALL	- <i>yirri</i> following a vowel - <i>jirri</i> following a consonant	- <i>yirri</i> following a vowel - <i>jirri</i> following a consonant

Source: Adapted from Dalton *et al.* (1995: 90).

Daguragu seems to have undergone a number of grammatical simplifications and loss of less common words (Dalton *et al.* 1995). Whereas Gurindji has bound pronouns that are usually attached to a catalyst, in children's speech, no bound pronouns are found; all are free. Word order seems to have rigidified in the direction of English, with subject–verb–object order as the rule – the traditional language has 'free' word order. However, ergative marking of transitive subjects has not been lost, although the range of allomorphs has reduced, as shown in Table 13.1. The same thing has happened with the locative case-marker, but not the allative.

In fact, use of the ergative marker has increased in children's speech. Traditional Gurindji is split ergative: nouns take ergative marking, though free pronouns do not. In children's speech today, ergative marking has expanded, and pronouns take it also. Thus compare the children's speech of (13.1) with the adult variant (13.2). This difference is noticed by older people, who regard it as wrong.

- (13.1) *ngayu-ngku bin luk karnti* Children's Gurindji  
 I-ERG PA see tree  
 'I saw a tree.'

- (13.2) (*ngayu*) *ngu-rna karnti karrap nya-nya* Traditional Gurindji  
 I CAT-1sgSUB tree see see-PA  
 'I saw a tree.'

Simplifications such as these are common in situations in which languages are weakening, and there is reason to believe that comparable changes occurred in previous times with languages that weakened earlier. Certain simplifications seem to have occurred in the Nyulnyul of those who learnt the language after 1920. The system of pronominal prefixes to nouns (see §7.3) is not evident in the speech of anyone born after that year; indeed it was absent from the speech of a man (now deceased) born in the previous decade. Such speakers consistently use the third person singular form of the noun, together with a free possessive pronoun. So instead of *ngamarl* 'my hand', they would say *nimarl jan* (literally 'his-hand my'), and instead of saying *nyiim* 'your eye' they would say *niim jii* (literally 'his-eye

Table 13.2 Frequency of use of different verb constructions in Nyulnyul

	<i>Fluent speakers of 1930s–1940s</i>	<i>Modern fluent speakers</i>	<i>Modern part speakers</i>	<i>Total</i>
SVC	52 (62%)	370 (74%)	32 (100%)	454 (73%)
CVC	32 (38%)	133 (26%)	0 (0%)	165 (27%)

Source: Adapted from McGregor (2002c: 164).

your’). The ergative postposition seems also to be completely absent in the speech of those born after 1920, though not in the speech of those born earlier.

Other changes have occurred in Nyulnyul in recent times. Word order appears to have rigidified: in the available modern Nyulnyul texts subject–verb–object accounts for almost 90 per cent of transitive clauses in which all three are present, presumably under English influence. And as shown in Table 13.2, there has been a steady increase in the frequency of use of the simple verb construction from the fluent speakers of the 1930s and 1940s (as represented in the texts recorded by Frs Nekes and Worms), to the fluent speakers of recent times (as represented in the texts recorded by Bronwyn Stokes and myself), and ultimately to modern part speakers who use it consistently. The compound verb construction is apparently lost; although part speakers do use uninflecting verbs, these are invariably alone, and never used along with inflecting verbs.

Even languages with fully fluent speakers, who use it on a daily basis, can lose grammatical constructions and words over time. Some of these losses are expected, such as loss of esoteric words associated with ritual activities no longer practised. In modern Gooniyandi certain rather complex kinship terms referring to groups of persons related in particular ways appear to have been lost. Even the oldest living speakers today appear not to recognise expressions such as *woordoo-langi-ga-langi* ‘a group consisting of all of ego’s grandparents, on both the mother’s and father’s side’, although I recorded such terms from the oldest generation of speakers in the 1980s, who had no trouble recalling and using these terms.

### 13.4.3 The future

What does the future hold? Will any traditional Kimberley languages survive into the twenty-second century, and beyond? And if so, for how long, and in what form? It is rash and perhaps presumptuous to make predictions, and the accuracy of linguists’ and anthropologists’ predictions in the past has not been particularly good. In the nineteenth century many pundits predicted the disappearance of Aboriginal people and/or their languages by the early twentieth century, while in the twentieth century they put it at the beginning of the twenty-first century (or before)! Yet manifestly many languages and people remain.

Present trends in language use and shift seem likely to continue into the foreseeable future. It seems unlikely that post-contact varieties such as Kriol and

Aboriginal English will not continue to be widely spoken: these are the mother tongues of most children, and the varieties spoken in most circumstances. As already mentioned there are few places in the Kimberley today where children are learning a traditional language as their mother tongue, and where a post-contact variety is not widely spoken.

It does not necessarily follow that the traditional languages are doomed to disappear, though it certainly seems to me, writing in the early years of the twenty-first century, that it is unlikely that more than a few languages will survive for very many years as viable everyday codes of communication. More likely, I suspect, most languages will 'survive' in the form of a few remembered words that descendants of speakers and owners of languages (see §2.1) pepper throughout discourses conducted mainly in English-based varieties. Other languages will 'survive' in the form of grammars that have been written of them.

My own observations in the Kimberley leads me to suspect that a number of older Aboriginal people today who speak traditional languages view the future survival of languages in such ways. That is to say, they do not expect children will use them as their everyday communicative code; moreover they consider it to be a good thing to have a grammar and dictionary of their language, and a language programme in the local school, thus ratifying its status amongst the languages of the region.

It is important for linguists involved with Aboriginal languages to be sensitive to, and to respect, attitudes of the speakers and owners, even if these are at variance with their own, which have been acquired in radically different socio-cultural contexts and through formal education. This means that one should respect communities' wishes that a language not be investigated, or that information on the language not be widely disseminated. The West, including the community of linguists, does not have a divine right to knowledge and information about the languages. On the other hand, attitudes are fickle things, and in a century descendants of speakers or owners might well wish to revitalise the language, but be impeded by lack of an adequate description. Any solution to these difficulties is likely to be fraught with problems. Fortunately these problems barely arise in the Kimberley context, where there is almost universal agreement on the practical advantages of linguistic research and keenness that members of the wider Australian public be better informed about their languages.

### Further reading

McNeill (1992) is a good introduction to gesture; McNeill (2000) is a collection of articles dealing with the interrelation between gesture and language. Wilkins (2003) is an excellent description of pointing gestures in Arrernte (Central Australia). Kendon (1988) is the only detailed account of Aboriginal sign languages; it focusses on Warlpiri and other central Australian groups.

Laughren (2000) contains up-to-date information on contemporary social and political issues confronting Aboriginal languages; see also Black (1993). Though dated, McKay and Sommer (1982, 1984) give some idea of applied linguistics in the Aboriginal domain.

Walton and Eggington (1990) and Hartman and Henderson (1994) deal with language education; Thieberger (1991) outlines language programmes in Western Australia until 1990. McKay (1996) reports on language maintenance needs and activities more generally. Thies (1987) reports on attitudes of East Kimberley Aborigines towards education and educational needs; ch. 8 in Thies (1987) deals with language. Some useful resource books for language education are Berry and Hudson (1997), Richards (1987), and Senior Secondary Assessment Board of South Australia (1996). The papers in Henderson and Nash (2002) deal with an important issue not touched on in this chapter: language in native title claims.

Articles in McConvell and Evans (1997) illustrate the possibilities of useful dialogue between linguists and archaeologists. Dealing with structural changes in Australian languages are Austin (1986), Bavin (1989), McGregor (2002c), Richards (2001), and Schmidt (1985b, 1990). On problems in observing current language situations and making future prognoses see Evans (2001) and Vakhtin (2002).

# NOTES

## 1 INTRODUCTION

- 1 Carl von Brandenstein claims that contact with Europeans goes back nearly 500 years, to the Portugese who, he says, established a number of clandestine settlements along the Kimberley coast and Fitzroy River between 1520 and 1580 (von Brandenstein 1992). However, the evidence is quite unconvincing (Mühlhäusler and McGregor 1996), and if the Portugese did land on Kimberley soil, or establish a colony there, no material evidence has yet come to light. In fact, the first recorded European exploration of the Kimberley coast dates to the middle of the following century, when Abel Janszoon Tasman landed on the Kimberley coast somewhere north of Broome in 1644.
- 2 The 1970s also saw bourgeoning of research on languages traditionally spoken near the Kimberley, and now spoken by some Aboriginal people in the Kimberley, including Murrinh-Patha (Michael Walsh and Chester Street), Warlpiri (Ken Hale (who began in the late 1950s), David Nash, Jane Simpson, Mary Laughren, and others), and Pintupi (Ken and Lesley Hansen, John Heffernan). To include all of these languages would make the story too long. I have therefore adopted the principle that after 1970 only languages traditionally spoken in the greater Kimberley region would be included.

## 2 SURVEY OF KIMBERLEY LANGUAGES

- 1 It also, of course, depends on what we take to be the Kimberley region (see §1.2). The notion of the Kimberley (like that of Australia) is a European concept; there was no corresponding Aboriginal concept. Territorial boundaries recognised by Aboriginal people do not coincide with boundaries recognised by government departments such as the Department of Lands.
- 2 A number of speech forms have gone out of use in the post-contact period. If we were to adhere strictly to the criterion of mutual intelligibility we would only be guessing to say that two forms of speech are indeed varieties of a single language or separate languages.
- 3 There are many exceptions, including English, Spanish, and German among many others. English is the official language of not only a number of nation-states (Great Britain, United States of America, Australia, New Zealand) but also a language of international communication. Even so, the term *language* is often used in the political sense to denote the different varieties of English of these nations. In Australia, for example, many people speak of the Australian ‘language’ (there are even books about it), as distinct from the British and American ‘languages’.
- 4 Some anthropologists have opted to replace the term ‘tribe’ by ‘language group’. What constitutes a language group is left unspecified – that is, the relation between the members of the group and the language is unstated: are they the speakers, the owners, or what?

- 5 The initial *u* of the word *Ungarinyin* indicates that the word refers to an abstract or intangible thing, such as a language (Rumsey 1982a: vii).
- 6 In these places, we find a linguistic situation not unlike that of Dampier Land, except that standardised names for varieties are absent. In the Western Desert, there is considerable latitude in the way one distinguishes oneself and one's speech from a neighbour's, frequently just in terms of a vocabulary peculiarity. *Kukatja*, for instance, designates a variety distinct from one or more of its neighbours by possession of the word *kuka* for 'meat'. To distinguish the variety from another one that also used this word, a different word could be chosen. (In recent years, things have begun to change, and standardisation of terms is underway.)
- 7 These recommendations are not definitive, and are subject to change. The situation is in a state of considerable flux; a number of changes have been made over the past decade, and many more will doubtless occur as more literacy programmes get underway.
- 8 Linguists are interested in genetic relations among languages, a quite different thing from genetic relations among people, which are biological facts concerning traits inherited from parent to child. Languages are not inherited in this way – rather they are learnt by children in their social milieu – and speakers of genetically related languages need not necessarily be closely related genetically.
- 9 In a reversal of the claims of his earlier book, R.M.W. Dixon has recently expressed doubt as to whether it will ever be possible to convincingly demonstrate genetic relatedness of Australian languages due, among other things, to the inadequacy of evidence, and the great time depth (Dixon 2001, 2002).
- 10 Australian Aboriginal languages are, however, spoken on a number of islands off the Australian mainland that belong to Australian territory. These include many (though not all) Torres Strait Island languages, Tiwi (Bathurst and Melville Islands), Anindilykwa (Groote Eylandt), and others. As to relationships with languages of Papua New Guinea, there are some intriguing possibilities. Foley (1986: 271) identifies a small set of possible cognates between Australian languages and Highland languages of Papua New Guinea.
- 11 It is generally believed that genetic relationships between languages cannot be traced back beyond 10,000 years by standard methods. In an attempt to go beyond this limitation, Nichols (1997) advocates a new approach, based on sets of grammatical characteristics that are presumed resistant to change. Although there are problems with the particular grammatical features she chooses (some of which seem, on the basis of Kimberley evidence, not to be particularly resistant to change over time) the method appears promising, and would repay more careful implementation. Her main conclusion, which remains speculative, is perhaps worth repeating here:

the levels of significance and multiple confirmations of distributions [of grammatical features] ... found here within Australasia are sufficient to establish two things: the high plausibility that in the languages of coastal Melanesia and New Guinea and north-western Australia we see the linguistic type of a colonising population most of whose entries came before the end of the Ice Age; and that in the languages of the Australian desert and the New Guinea highlands we see reflected the structural type of the languages spoken by the first humans to set foot on ancient Sahul.

(Nichols 1997: 168)

- 12 Basic vocabulary items are believed to be generally more resistant to replacement than non-basic items. This is presumably partly because of their typically high frequency of use – frequent associations, like frequent habits, are more difficult to change than infrequent ones. Alpher and Nash (1999) provides empirical support for this belief.

Therefore finding cognates amongst basic vocabulary items provides better evidence of relatedness of language than cognates in non-basic items (contra Dixon 2002).

- 13 It is well to be aware that care must be taken in applying the comparative method. It is premised on the assumption that there is no natural connection between the sound of a word and its meaning. But all languages have some words for which the sound is connected with the meaning: these are the so-called onomatopoeic words. For example, in Kimberley languages, many birds are named after their calls, and not surprisingly there are a number of similarities amongst the terms for birds, which do not appear elsewhere. The peewee or mudlark is referred to by the term *diyadiya* in many Kimberley languages. But this does not argue for genetic relationships. Other groups of words for which sound and meaning resemblances are not suggestive of genetic relations are terms for 'mother' (or 'mummy'), 'father' (or 'daddy'), 'breast', and so on. These words are similar in sound in many languages, even languages that show no similarities in other vocabulary items. Such words should be excluded from consideration, at least initially when applying the comparative method.
- 14 An earlier classification was proposed by Schmidt (1919). However, due to lack of information, Kimberley languages played a minor role in the classification – see however §1.4.
- 15 According to Dixon (e.g. Dixon 1980, 1997, 2001, 2002) Pama-Nyungan does not represent a language family. Indeed, he has recently expressed the opinion that 'the Pama-Nyungan idea has no significant basis, and...it has in fact held back Australian studies' (Dixon and Blake 2000: xvi). The majority of Australianists nonetheless believe that Pama-Nyungan languages constitute a genetic grouping (e.g. Blake 1988; Evans 1988). Non-Pama-Nyungan, on the other hand, is a cover term for all traditional languages that are not Pama-Nyungan; they may or may not ultimately prove to be genetically related – currently something like a score of families are generally recognised, genetic relationships among which have not been demonstrated.
- 16 Many speakers of Kija living around Halls Creek, say that Lungka is the name for a dialect of Kija.
- 17 Lexicostatistical counts recently performed independently by Alan Rumsey and myself tend to confirm this picture, though the actual figures (rather than their patterning) tends to suggest the three divisions are subgroups rather than groups – most of the inter-division percentages lie between 26–50 per cent. (However, it must be cautioned that information is quite inadequate on many of the languages.)
- 18 It is possible (though not certain) that Walmajarri, Wangkajunga and Yulparija are also being learnt by children in some of the outlying communities such as Warrimba, Wangkatjungka Community (Christmas Creek) and Bidyadanga (La Grange).

### 3 LANGUAGE IN KIMBERLEY ABORIGINAL SOCIETIES

- 1 A name taboo would be unlikely to affect the entire community of speakers of a language for long, and it is unlikely that this practice accounts for the low level of cognates in Australian languages, as suggested by Dixon (1972: 331, 1980: 28, 44). See Alpher and Nash (1999) for further discussion.
- 2 In the far north of the Dampier Land peninsula sections were introduced in very recent times, and have not gained complete acceptance. Earlier, the social universe was divided into two generations – *jarnd* 'same generation as speaker' and *inar* 'different generation' in Nyulnyul. This is not a moiety system: an individual does not belong uniquely to either *jarnd* or *inar*, but is *jarnd* in relation to some persons, *inar* in relation to others.
- 3 The notion 'close' is difficult to nail down precisely, and involves various considerations, including the geographical nearness of the individuals (usually understood in terms of the country they inhabit or are affiliated with).

- 4 We ignore here the more complex kin-terms that refer to groups of kin, rather than single individuals; see McGregor (1996a) for details.
- 5 Avoidance styles seem to have usually gone out of everyday use fairly quickly in post-contact times, and thus the lack of knowledge of a style – especially amongst remaining speakers of a moribund language – need not imply that one did not exist previously.
- 6 In many languages, including languages of Europe, the second person plural pronoun ‘you lot, you all’ is used in addressing a single person to express politeness. In French, a single person might be addressed with *vous* (‘you lot, you all’) instead of *tu* (‘you alone’) by a speaker who wanted to be polite, formal, or deferential.
- 7 The Central Australian language Arrernte had a Pig Latin variety, called ‘rabbit talk’ (*angkentye rapete*), now only known by older people (Turner and Breen 1984). I am not aware of anything like this in a traditional Kimberley language.
- 8 Cornish’s reminiscences were published in edited and adapted form in Shackcloth (1950); the quote comes from pp. 237–8. Pilmer’s were published in Pilmer (1998), the quote coming from pp. 41–2.
- 9 Stanley Porteus was an American psychologist who visited Australia in 1929 under funding from the then Australian National Research Council. One presumes that his representations of the spoken word are comparatively reliable. Incidentally, he remarks on the presence in Moola Bulla of an Aboriginal man from the south-west who spoke English – ‘*What is it you wish me to do?*’ (Porteus 1931: 95).
- 10 Some linguists believe that Kimberley Kriol can be traced back to Roper River Creole, also called Kriol, which creolised in the Roper River mission (Northern Territory) in the 1910s. Despite similarities between the two creoles, the arguments for this scenario over independent creolisation from Pidgin English remain to be established.
- 11 These remarks hold for people living in regions of linguistic diversity. There were also regions where the diversity was less, and multilingualism in its usual sense could hardly have been the norm. The languages of the Dampier Land peninsula are closely related, and purely on linguistic criteria one might say they are dialects of a single language. A speaker of one would readily understand a speaker of another, just as a speaker of Australian English understands speakers of dialects of American English, and with more exposure, Yorkshire English. Personal anecdotes attest to speakers of one Dampier Land language having such an understanding of the others, while preferring to speak in their own language. Dominic Charles (in a conversation with Patrick McConnell in 1984) recalls that in his youth (in the 1930s) Bardi and Nyulnyul people used to speak to one another in their own language. A number of personal communications to myself from Beagle Bay residents and Nyulnyul people concur. And reporting on his baptism in the mid-1890s, Remi Balgalai says: ‘Father asked in Nyulnyul, “Do you believe?” and I answered in Djabberdjabber’ (Nailon and Huegel 1990: 10). Such situations are the exception rather than the norm in the Kimberley.
- 12 Code switching is not always for social-interactive purposes. Sometimes it is motivated by the absence of a suitable means of expressing a certain meaning in the language one is speaking. Thus Kriol lacks the rich set of spatial terms (§9.5) and ternary kin-terms (§3.2) of Gurindji and other Kimberley languages, and some shifts from Kriol to Gurindji are motivated by the need to fill these gaps.
- 13 It is not always certain which category a language belongs to, and the information given is tentative. No attempt has been made to include all Kimberley languages, and most doubtful cases have been left out.

#### 4 PHONETICS AND PHONOLOGY

- 1 Note that in this and following figures the velum is shown closed, as for stops. For the nasals at the same place of articulation it is lowered; there is no other change in the mouth.



- 2 Nasals have few allophones in comparison to stops, and we need not go into details here.
- 3 In fact, the grounds for grouping /r/, /rr/, and /rd/ together seem to be entirely English based: they seem to English speakers to belong together because [ɹ], [r], and [r̥] are dialectal variants in the pronunciation of /r/. But there is more in common phonetically amongst [w], [j] and [ɹ] or [ɹ̥] than there is between [ɹ] or [ɹ̥] and either [r] or [r̥].
- 4 Similar reasoning cannot be adduced in favour of interpreting [ɑ:] or [a:] as realisations of /ara/ or /awa/ since there are always contrasts between [ɑ:] or [a:] and [ɑɪɑ] and [ɑwɑ].
- 5 Most vowel initial words in Bardi result from a fairly recent phonological change whereby word initial glides *w* and *y* were deleted: for instance, Bardi *amba* ‘man’ derives from Proto-Nyulnyulan \**wamba* ‘man’ (compare Nyikina, Yawuru, and Warrwa *wamba* ‘man’).
- 6 Just as most initial vowels in Bardi result from loss of an initial glide (see note 5), most final consonants in Nyulnyul result from loss of the final vowel in the fairly recent past.

## 5 FUNDAMENTAL CONCEPTS OF GRAMMAR

- 1 You could of course divide these words into phonemes, but these are not meaningful pieces: *kinya* means ‘this’ or ‘that’, and neither the phonemes nor the syllables have any meaning.
- 2 As we are using the term part-of-speech here, it refers to classes defined by grammatical features, not by meaning commonalities as in traditional grammar. With regard to the languages discussed in this book it is impossible to define parts-of-speech by meaning commonalities and differences, although meaning similarities within parts-of-speech defined by grammatical criteria do exist.
- 3 Although there are a few derivational suffixes that attach exclusively to nominals, these rarely occur on anything but a small subset of nominals. Thus nominals as a part-of-speech cannot be defined by their ability to occur with these derivational morphemes.
- 4 A variety of other terms have been used for these two parts-of-speech. Inflecting verbs are also called ‘verbs’, ‘verb roots’, ‘finite verbal words’, ‘generic verbs’, ‘simple stems’, etc. Uninflecting verbs are also called ‘preverbs’, ‘prestems’, ‘(verbal) particles’, ‘coverbs’, ‘participles’, ‘Root<sub>1</sub>’, and so forth. My choice of terms is motivated primarily by the descriptiveness of the terms inflecting and uninflecting verb, which are also used in McGregor (2002a).
- 5 Wagiman – not actually a Kimberley language, but spoken not too far to the east in the Northern Territory – is one of the few exceptions: almost every uninflecting verb can (but need not) also take the inflections of inflecting verbs (Wilson 1999: 82ff).
- 6 It must be admitted that it is not always clear that these are subtypes of a general part-of-speech, rather than represent four distinct parts-of-speech – or indeed, whether some may belong to other parts of speech. Languages may of course differ in these respects.
- 7 There may be one or two exceptions in the greater Kimberley region. For instance, in Jaminjung it seems that only the oldest speakers know terms for the compass points, though they almost never use them. Instead, they use terms for ‘upstream’ and ‘downstream’ (Schultze-Berndt forthcoming).
- 8 The difference between catalysts and particles concerns grammatical patterning not meaning (see note 2). Particles, in contrast to catalysts, are generally freer in their positioning in a sentence, and do not serve as a base for pronominal enclitics.
- 9 We know that *nyila mawun* ‘that man’ is the object of the first clause, rather than the subject of the second, since it does not have an attached ‘by’ postposition.
- 10 The placement of the catalyst *nga* is unusual in this clause: usually it goes in second position.

- 11 The way we use the term verb phrase in this book differs from the way it is usually used in grammar, especially formal grammar, where it refers to a verb plus most of the rest of a clause except the subject. According to that use of the term, *miyanggi man-gu nyila mawun* (ask get-for that man) ‘ask that man’ – perhaps along with *nga-rna* (statement-I) – would be the verb phrase. According to the usage adopted in this book, just the first two words constitute the verb phrase. We return to this point in §8.1.
- 12 In Jaru it seems that each word of a noun phrase usually gets a case-marker, suggesting that these morphemes are more like noun inflections than postpositions. However, especially when the words are together, one or more of them may lack the case-marker.

## 6 PRONOUNS AND DETERMINERS

- 1 This is according to Clendon (2001: 236–7). Earlier sources (Love 1934; Capell and Coate 1984) give distinct masculine and feminine dual and trial forms: *awandu* (masculine dual), *nyingkandinya* (feminine dual); and *awurri* (masculine trial), *nyingkurrinya* (feminine trial).
- 2 *Wi* is also used as a first person plural pronoun, covering the same range as its English counterpart *we*; the plural exclusive *mela* is used in the same way in the speech of some children (Hudson 1983: 43). Thus the system is optionally inclusive/exclusive, like the Miriwoong system.
- 3 The system is not quite as clear-cut in other Nyulnyulan languages, although the four person analysis is always preferable to the inclusive/exclusive analysis. In Yawuru, for instance, *-karda* is a genuine dual marker, and cannot be attached to *yadiri*, the 1&2 augmented form. Instead, the suffix *-kurdiri* is employed, which appears to be a modification of *kurdirdi* ‘three’ (Hosokawa 1991: 292). In Warrwa the dual suffix *-wili* can’t be attached to the 1&2 augmented *yadirr* – nor can any other number-marking suffix be used instead; there is a gap in the paradigm at this point. In Western Nyulnyulan languages, pronominals do not take number-marking suffixes at all, and so the unit augmented category disappears.
- 4 Here square brackets enclose grammatical features (such as ‘addressee’), which are given plus or minus values.  $\begin{bmatrix} A \\ B \end{bmatrix}$  indicates a combination of the features [A] and [B], i.e. [A&B].
- 5 The few Kimberley exceptions are Pama-Nyungan languages, including Gurindji and the Turner River dialect of Jaru. In other dialects of Jaru ergative marking is optional on pronoun subjects of transitive clauses, whereas it is obligatory on noun subjects (Tsunoda 1981: 160–1).
- 6 In more southern varieties of the Western Desert language, such as Pitjantjatjara, the first person singular form *ngayu-lu* is used for subjects of transitive and intransitive clauses (for nouns, *-lu* is an ergative suffix, used only on subjects of transitive clauses). The accusative suffix *-nya* is added when the pronoun is object of a transitive clause; this suffix is not used on nouns serving as objects.
- 7 The uniqueness of the speaker is accepted by most linguists, though fewer accept the uniqueness of the hearer – for example, Greenberg adopts the former, but not the latter (Greenberg 1988). While Benveniste (1946/1971) presents arguments for each, he equivocates somewhat on the second. Recent proponents of the inherent uniqueness of the hearer include McKay (1978, 1990); McGregor (1989b, 1996c); and Goddard (1995).
- 8 Actually, this is a slight over-statement. A few Pama-Nyungan languages have irregular pronoun affixes for some person–number combinations. This is the case in various Arandic languages, which have bound pronouns that can be attached to kin-terms, indicating the possessor. Generally these are suffixes; but the occasional prefix occurs.

- 9 The nasal *ny* is not a morpheme; it is simply added in under certain circumstances between a prefix and the root.
- 10 This is the traditional view concerning the meaning of demonstratives. The reality is actually more complex, and relative distance is only one of a number of potentially relevant features. Since all our sources present the systems in traditional terms, we have no option than to do so also.
- 11 In Jaru there is a slight irregularity: demonstrative roots end in either *a* or *u*. The former mainly refer to places; the latter, to things. Thus *murla-ngga* (this-at) 'here' and *yala-ngga* (that-at) 'there'; unacceptable are *\*murlu-ngga* and *\*yalu-ngga*. The ergative is predictably restricted to *u*-final roots.

## 7 NOMINALS AND NOUN PHRASES

- 1 And what should we do when there is no nominal in the grammatical relation? For instance, (7.4) would be an acceptable utterance without the two initial words. Shouldn't we identify it as a subjectless clause, adding further to the grammatical complexities, admitting clauses with zero, one, two, three, and more subjects? Clearly it is more economical to adopt the view (stated in §5.3) that the subject NP has simply been ellipsed.
- 2 The same postposition is found in Gooniyandi, but with a somewhat different meaning: it indicates something that someone (or something) is lacking (hence the label 'deprivative'), the lack being the cause of the event. Thus if it were used in the Gooniyandi translation of (7.13) it would mean that they were fighting because they had no grog!
- 3 The cognate postposition in Western Nyulnyulan languages is even more restricted, and is not used to mark either a possessor in an NP, or a purpose; the allative postposition is used to express the latter meaning.
- 4 Perhaps, as Kofod (1978: 139) observes, *-bag* ALL is borrowed from English *back*.
- 5 A similar contrastive use of the ablative *-ngunyi* is found in nearby Jaminjung, an ergative language (Schultze-Berndt 2000: 59, 168–9).
- 6 The absolutive *\*-ø* is unlikely: it is more likely that in proto-Pama-Nyungan there was no absolutive marker. This is because it is likely that in the proto-language the case-markers were postpositions, and that these subsequently became more tightly bound to words. There is generally little support for zero postpositions.
- 7 The forms given should not be taken too seriously: many roots occur in different allomorphs depending on the prefix.
- 8 In an investigation of prefixing nominals in Nyulnyul I put things in the following terms:

whether or not a nominal is prefixing is not an accidental fact of morphology or (morpho-) phonology, but is semantically motivated. It is suggested that the relevant semantic factor is the notion of the *personal sphere* or *personal domain*, that is, roughly, whether or not the item is represented in the language as an aspect of – or part of – the persona of a human being, or, rarely of an animal.

(McGregor 1995: 251)

- 9 Both Arthur Capell and Alan Rumsey argue that in Ngarinyin whether or not a body-part nominal takes prefixes is not semantically but phonologically conditioned (Capell 1972a; Rumsey 1982a: 42–5). True, one cannot reliably predict from the semantics whether or not a body-part nominal will be prefixing – as is true also for Nyulnyulan languages. This does not argue against a semantic basis for nominal

prefixing: as elsewhere in grammar prediction is impossible, though explanation may be. What the phonological explanation does not explain is the high degree of agreement between Worrorran and Nyulnyulan languages as to which body-part nominals take prefixes. The phonological correlates – more significant in Ngarinyin than in Nyulnyul – are in part dependent on the morphological analysis one adopts, and could well be the result of phonological processes occurring at the morpheme boundary, and/or reanalysis of the boundary between prefix and root.

- 10 Unggumi is unusual in the respect that the M class denotes locations, and includes virtually no plant or vegetable matter; usually the M class in Australian languages is a vegetable class, containing nouns for trees, vegetation, vegetable foods, and so on.
- 11 Phonological associations such as these result from erosion of earlier morphemes marking class membership (see the Unggumi case discussed).
- 12 I am not referring here to languages such as Ngarinyin that have full sets of bound possessive pronominal inflections that can be attached to kin-terms. Rather, I refer to languages in which the suffixes are derivational morphemes, like Gooniyandi *-wa* and *-wadi* (which incidentally show no significant formal similarity with any free or bound pronouns).
- 13 Actually, *walk* means ‘sun’ in Nyulnyul; however, in the absence of any known connection (e.g. mythological) between the sun and the species of fish, we cannot regard *walkwalk* as a reduplication of *walk* ‘sun’.
- 14 As seen in §7.3, the distinction is sometimes made at word level. A few cases are reported in the literature in which inalienable possession is expressed by an NP in which the possessor and possessed nominals have the same case-marking. However, the status of the expression designating the possessor plus the expression designating the possessed as a single NP is often problematic, and the balance of evidence usually suggests that they are distinct NPs (see §10.3.5). It is also necessary to distinguish between the expression of inalienable possession and whole-part expressions in which the whole indicates the type of thing the part is, modifying the reference of the part nominal. Gooniyandi *thirrwoo nyaawa* (kangaroo tail) ‘kangaroo tail’ is such a construction, not an expression of inalienable possession.
- 15 Rumsey (1982: 70) comments that the form *anangga*, which indicates third-person singular possessor and an inanimate possessed, seems to be showing signs of being reinterpreted as a general possessive postposition – though it has apparently not yet reached the stage of Yawuru *-jina* GEN.
- 16 This explanation does not work for Western Nyulnyulan languages. Construction (iii) can, for instance, be used for any possessor, including pronouns, for example, *ngay jan-ijirr ngank* (I my-emphatic word) ‘my word, my story’.

## 8 VERBS AND VERBAL CONSTRUCTIONS

- 1 From this point on more exhaustive morphological divisions are provided of the examples, and explicit glosses for each morpheme. This makes for much more complex representations, making more demands on memory of abbreviations. Unfortunately, this is unavoidable in an investigation of the structure of verbs, and the reader should soon get used to the less reader-friendly appearance.
- 2 Recall that pronouns in Nyulnyulan languages distinguish four persons (1, 1&2, 2, 3), and two numbers, minimal (smallest number) and augmented (plus one or more) – see §6.1.2.
- 3 Notice that the other forms +I takes, *a* and *oo* are regular and predictable from the preceding vowel; all that is required is a rule of vowel harmony.
- 4 It is important to note here that it is the reflexive-reciprocal affixes that are derivational; it is not claimed that the reflexive-reciprocal clause is derived from a transitive clause, as sometimes suggested for Australian languages.

- 5 According to Rumsey (2000: 76) four IVs can occur without UVs. Two of these, however, can occur in CVCs with nominals or derived UVs, and do not occur as the sole member of a VP.
- 6 One exception is *bin*, borrowed from English *been*. This serves as a marker of past tense in Pidgin English and Kriol, and is these days sometimes used in an IV-like manner in CVCs in Jaminjung and other languages.
- 7 More precisely, the universe of events referred to by CVCs is divided up in this way; events referred to by SVCs are excluded. For simplicity of exposition I do not make this qualification explicit in what follows; however it is to be assumed. In fact, this imprecision is not as dangerous as might be thought, since the categories are of such generality that any event whatever could be assigned to one or more of them. That is to say, any SVC expression could potentially be replaced by a CVC, assuming the speaker could invent (or borrow) a suitable UV. (It is the UVs that are the weak point in the system, not the IVs.)
- 8 The forms of the IVs have been simplified slightly. Bracketed words show the meanings of each IV in independent use; the following words indicate the meaning of the CVCs.
- 9 The final group of bodily experiences do not conflict with the specification of +MI events as activities: when classified in this way, the event is specified as something that a human experiencer is strongly engaged in, that they actively feel, rather than passively undergo.
- 10 McGregor (2002b: 171–205) contains a detailed comparison of the verb classifying systems of Gooniyandi and Nyulnyul. This reveals that despite the similarities there are significant differences in detail, in particular in the range of events assigned to corresponding categories.
- 11 Conjugation class systems did not all arise in this way. Nyulnyulan conjugations apparently had a completely different origin: the conjugation marker *na* almost certainly comes from a third person singular object pronoun prefix *\*na-*, plausible cognates for which can be found in many non-Pama-Nyungan languages.
- 12 Significantly, in Gooniyandi +A – almost certainly a reflex of *ka-* (*ga-*) ‘carry’ – shows an unexpected *ng* in one of its past tense forms, third person singular acting on third person singular. And in Mayali the IVs *kaa-* ‘carry’ and *pu-* ‘hit’ belong to conjugations marked by *ng* and *m* respectively in the past perfective.
- 13 Yawuru is an exception: it seems that the *ma-* forms have been lost, except in speech influenced by Nyikina. Instead, either the third person (minimal or augmented) imperfective form or the second person minimal future is used. Thus, corresponding to Nyikina *ma-ba-in* (INF-see-IMP) ‘seeing’ is *i-na-bura-n* (3minSUB-TR-see-IMP) ‘he sees it, one sees it’.

## 9 VOCABULARY AND MEANING

- 1 It cannot be concluded that the place formerly belonged to Walmajarri territory: most speakers of Gooniyandi are fluent in Walmajarri, and in traditional times those residing in the region of *goonyarr-goojarra* would certainly have spoken that language.
- 2 As remarked in §3.4.1 and §3.4.2, phonological changes motivated by the phonological systems of traditional languages have occurred in words of Pidgin English and Kriol deriving from English.
- 3 Many other European items were misunderstood at the time of first contact, and referred to by terms reflecting these misunderstandings. According to Jack Bohemia<sup>†</sup>, when Gooniyandi people first saw tea they believed it to be *gri*, a type of sap used to poison fish – when added to a pool *gri* turns the water a reddish colour, like tea. Today – its use being understood – tea is referred to by the loanword *dii*. Flour was widely believed to be a type of white ochre, and stories abound of early days Aborigines painting themselves with it, instead of eating it.

- 4 This is normally interpreted (as per the quote) to mean that the word really means 'a few, several', the exact number 'three' being a possible contextual sense. However, I favour the alternative view that – in some languages at least – the word actually does mean precisely 'three', and that the sense 'a few, several' is secondary. This is because the standard approach suggests that English *fifty* is not a precise number word, but means 'a fair number, around about fifty in my guess', this being how the word is most frequently used in English – compare the implied absolute precision of *fifty-one*. Most speakers would consider the imprecise sense secondary, and that *fifty* actually means '50'.
- 5 Many Kimberley languages also have bound morphemes indicating number – postpositions marking dual ('two'), plural ('many'), and/or trial ('a few'), and bound pronouns that specify number. Putting everything together, some number information is provided in almost every utterance – imprecise, to be sure, though often no less so than in English.
- 6 It may not be an accident that in the extended system of number words in Gurindji the pan-Australian *marla* 'hand' denotes 25, that is, five times five. (I am grateful to Alan Rumsey for pointing this out to me.)
- 7 This view is not shared by all Australianists. Some years ago Ken Hale made the influential suggestion that these words are really indefinite determiners like English *a* and *some*:

The indefinite paradigm functions in the language as a system of determiners – it is not a system of numerals, contrary to what one might be led to believe from the literature on Australia which sometimes identifies languages as having the 'numerals' *one*, *two*, *three*, and *many*. The fact is, the indefinite determiner paradigm, as a whole, is not used in counting in Walbiri, any more than are the various definite determiner paradigms. What is true of Walbiri in this regard is, so far as I can tell, true of the other Australian languages which I have any knowledge of.

(Hale 1975: 295)

Hale's main evidence was the parallel between the four number words and the four number forms of the definite determiners in Warlpiri. On the negative side, the parallelism is a peculiarity of Warlpiri not shared by all Kimberley languages. Moreover, given Hale's proposal, why should there exist terms such as 'how many', 'thus many' (usually accompanying a manual gesture), for which it is clear that the targeted information is numerosity? And why should there exist derived forms of the number words specifying frequency, for example, in Gooniyandi *yoowarni-ngarri* (one-with) 'once', *garndiwirr-ja* (two-at) 'twice', and *ngarloorr-ja* (three-at) 'thrice'? Why furthermore should the number words show quite different syntactic behaviour to determiners, both definite and indefinite, in noun phrases? Note that I am not claiming that these words cannot be used in the manner of indefinite determiners – as we will see, they are in many languages – rather, the claim is that first and foremost they represent numbers.

- 8 These remarks are impressionistic, based on observation of use, rather than on systematic checking with speakers. It is possible that there are differences in the size of the domains covered by each term, and quite likely the focal directions do not coincide with the foci of the cardinals in English (which also of course differ according to whether the magnetic or grid system is employed), as seems to be the case in Arrernte (David Wilkins, pers.comm.).
- 9 This is an edited version of Peile's original manuscript, which should be consulted for Kukatja examples. (An electronic version is available from the Library of the Australian Institute of Aboriginal and Torres Strait Islander Studies.)

## 10 CLAUSES AND SENTENCES

- 1 Some languages may not have nominal clauses. Yawuru could be such a language: a VP – usually with either -NI ‘be, exist, do’ or -NGARA ‘be, become’ – can always be added to a clause lacking a VP with no change of meaning (Hosokawa 1991: 455). This suggests that these two IVs would be genuine copula verbs like *be* and *become* in English. Few Kimberley languages are like this, and much of what is said in §10.2 on nominal clauses would apply (suitably modified) to clauses both with and without a VP.
- 2 The reasons are not just that (10.18) and (10.19) are characterising and identifying in meaning, but also grammatical. In both cases it seems that the second NP is elliptical, with its referring nominal ellipsed because it is already mentioned in the context (as in (10.18)) or in the first NP (as in (10.19)). That is, fuller versions of these clauses are *kaliya* [*kinya marnin*] [*jurrunguny nimarrangka wanyjarri-barri*] *marnin* (finished [that woman] [[right:side arm one-COM] woman]) ‘After that, that woman was a right-armed only woman’; and [*kamirri yila*] [*marnin*]-*ji yila*] ([that dog] [[woman]-DAT dog]) ‘That dog is the woman’s dog’.
- 3 We exclude from the discussion of this section copula clauses of languages like Yawuru – see note 1.
- 4 It can hardly be accidental that the two families of languages that lack ergative markers distinguish noun classes (see §7.4), these being indicated by the bound pronouns. This additional information apparently reduces to an acceptable level the circumstances in which there is uncertainty as to which NP fills which role.
- 5 An important problem has been glossed over here. In both Bunuban and Nyulnyulan languages the ergative marker can be omitted from an NP on which it usually occurs, and added to an NP on which it does not normally occur. These options are motivated by pragmatic considerations (see §12.3), and the role definitions can be modified accordingly.
- 6 Note that it is the NPs that serve in the participant roles, not the bound pronouns – these are markers of the participant roles that the NPs serve.
- 7 The term *external possession construction* captures the fact that the possessor NP is external to the NP denoting the possessed. It is now the standard term, replacing previous terms *possessor raising* and *possessor ascension*.
- 8 To assist the reader’s interpretation of examples in this section, NPs and cross-referencing bound pronouns referring to possessors are single-underlined, and NPs referring to possessed items are double-underlined.
- 9 There are often a few exceptions, where a UV or IV can occur only in reflexive-reciprocal form, and in reflexive-reciprocal clauses. Furthermore, it not unusual to find some UVs or IVs that occur in reflexive-reciprocals also in intransitive clauses and/or middle clauses – though not transitive clauses. Thus overall reflexive-reciprocals do not give neat patterns of clause alternations.
- 10 In Gooniyandi, these two clause types account for over 90 per cent of verbal clauses in a corpus of some fifty narratives; middle and reflexive-reciprocal clauses account for only about six per cent. (Ditransitive clauses were included with transitive clauses.)
- 11 The qualification that the clause be non-elliptical is essential. In elliptical clauses things are more problematic. Sometimes the initial NP indicates what the clause is about, thought more often it is about the item referred to by an ellipsed NP.
- 12 How then can we tell whether two adjacent finite clauses form a complex sentence, or are two separate clause sentences? Apparently we need to take intonation into account. In Gooniyandi, when the two clauses occur on a single intonation contour (a rare occurrence) they form a complex sentence. They also form a complex sentence when either, (a) the first has a slightly rising tone, the second, falling tone; or (b) both have falling tone, but the second is lower and shows less pitch movement throughout.



Otherwise, the two clauses will normally form two distinct sentences. Similar observations seem to hold for other languages I have heard, though careful investigations have yet to be undertaken in other Kimberley languages.

## 11 TEXT AND DISCOURSE

- 1 It is artificial – and problematic – to separate speech from the other things that are going on in the interaction, including the other communicative systems in use (see also §13.2.3). One interactant's contribution might be constituted entirely by gesture, and to ignore it could result in a misunderstanding of the interaction. The restriction to speech is for convenience and simplicity.
- 2 It is difficult to show morpheme divisions within the inflected forms of the classifiers in Gooniyandi, and they are left unanalysed in the first line; the gloss line indicates each morpheme in order, separated by a + (indicating that the morphemes may be fused by phonological rules), > (acting on), or < (acted on).
- 3 For some unknown reason, the speaker says here not the standard word for 'diver bird', *garranggarrang*, but instead *garranggarrangga*, a form I have not otherwise encountered. Perhaps this is a speech error; we can be sure it does not involve the ergative postposition, which takes the form *-yingga* when following a word final *ng* (as in the next line of the text).
- 4 The Rainbow Snake, *Galooroo*, is an important figure in the mythology and religious beliefs of many Kimberley Aboriginal societies, and plays a role in many Gooniyandi myths. Its role and significance here is, however, opaque.
- 5 In the Gunun/Kwini text noun classes are indicated by a capital letter partially representing the phonological shape of the marker: A, B, M, N, or W.
- 6 Ian Crawford is an archaeologist who has undertaken extensive investigations of northern Kimberley rock art and Macassan-Aboriginal contact.
- 7 The original text does not include the information that the Dreamtime creature would get angry; this was added in by the narrator when the story was transcribed on a later occasion – apparently an explanation of the significance of the statement that the creature would not recognise the people, which would presumably be obvious to speakers of the language.
- 8 This is a particularly interesting story, since it plays a prominent role not only in the traditions of Aboriginal people of the western Kimberley, but also in traditions of mainstream Australian society, where it also exists in many different versions, oral and written – including fictionalised, highly fanciful 'non-fiction', and academic-historical accounts; there is even a song about Jandamarra, composed by the country and western singer Ted Egan (see Egan 1987: 52–5 for the lyrics). The story is being scripted for a film, to be produced by Bunuba Productions, a company formed by Bunuba people, among who number traditional owners of the story.
- 9 The interpretation of this sentence is uncertain. Perhaps it should be interpreted as 'they all looked at one another', and that the singular cross-referencing pronoun affix in the verb is being used in a collective sense. Or it might mean 'each man looked at himself', perhaps suggesting that each person examined himself in preparation for an encounter with Jandamarra.
- 10 The idea that Jandamarra had his spirit in his ankle accounts for the great difficulty that the police experienced in killing him. This, or a very similar, theme is recurrent in Aboriginal versions of the story: Jandamarra variously has his spirit in his big toe, thumb, or ankle. Interestingly, this theme can be traced back to traditional mythology: a Worrora story in Lucich (1969) relates that a person who was very difficult to kill had their spirit in their thumb, and it was only by spearing them there that they could be killed.
- 11 Some investigators (e.g. Tedlock 1983; Hymes 1996) draw an analogy between this characteristic mode of delivery of oral narratives – which is also found in various languages



of North America (and elsewhere) – and poetic form. Whilst this analogy is useful, it must be cautioned that we should not presume that oral narratives in Kimberley languages are a form of poetry, and carry across notions of English poetry to them, for instance that they have similar social values, or invoke similar types of interpretative strategies.

- 12 Harney (1959/1969: 19–27) provides a nice description of ‘traditional’ story telling situations in the Northern Territory, with a generous measure of poetic licence. As he portrays it, stories were frequently told around the campfire at night. At the time he was writing of, Aboriginal people in the Northern Territory worked mainly in the pastoral industry; nevertheless it is not unreasonable to presume (along with Harney) that they were continuing a tradition of story-telling dating back to pre-contact times. One might imagine that stories were also told in such contexts in Kimberley Aboriginal societies. Not all narratives would, however, have been told in such circumstances. For instance, secret/sacred mythological narratives would not have been told around the campfire, with women and children in the audience; they would have been performed and exchanged in elaborate and highly restricted ceremonial contexts.

## 12 GRAMMAR IN LANGUAGE USE

- 1 This is in accordance with a principle known as Behaghel’s first law (Siewierska 1988: 144), according to which what belongs together mentally goes together in linguistic form – grammatical units should be continuous. As we will soon see, they are continuous unless there is a good reason for them not to be.
- 2 The just-mentioned frequency data is based on an on about twenty texts, mainly narratives, amounting to over a thousand clauses. The following generalisations are based on a larger sample of about fifty texts, amounting to some three thousand sentences. No claims are being made about the acceptability of clauses in which the constraints are not met. We are interested here in the meanings and uses of NP discontinuity, not in judgements about acceptability, which need not throw any light on our questions.
- 3 Hale (1983: 31) suggests that discontinuous NPs in Warlpiri are ambiguous between ‘merged’ and ‘unmerged’ interpretations, where the latter involves a relation of predication between the two NP parts that are effectively independently evaluated as expressions. At least in Gooniyandi, no such ambiguity exists: these two interpretations are associated with the two intonationally distinct types, unified and discrete.
- 4 As we have seen, in all Kimberley languages bound pronouns inflect primarily on a subject–object (nominative-accusative) basis. It could thus be said that ergative marking is split at the boundary between NPs and bound pronouns, that is, according to whether the referring expression is free or bound.
- 5 Intuitively this correlates with the fact that in middle and reflexive-reciprocal clauses there is no problem in distinguishing the Agent, even if it is not overtly marked by the ergative postposition.
- 6 Careful readers will have noticed that focal ergative marking is only possible on nouns that end in vowels; nouns that end in consonants always take the *-ma* form (there are a few complications that need not concern us here). This does not result in a great loss of expressive potential since (i) three-quarters of nouns end in vowels and (ii) it is almost always possible to include in the NP a vowel-final noun or determiner, permitting the appearance of the focal ergative marker.
- 7 Note that in this example *marlu* ‘not’ is not used as a clausal negator: (12.19) does not mean ‘But the big woman did not throw the little man away.’ To express that meaning, the IV would have been in irrealis mood. Rather, *marlu* ‘not’ is being used in an interjection-like fashion, indicating surprise.
- 8 The reader should compare the information in the Gooniyandi column with that in the flowchart display of Figure 12.1. A couple of differences are evident. These are in fact

illusory, consequences of the fact that the flowchart ignores ellipsis. For instance, according to the flowchart an NP will be not given the ergative postposition if it is not unexpected and not high in agentivity, that is, it is +expected and either +low or normal in agentivity. This suggests that an NP that is +expected and normal in agentivity will not be ergatively marked, contrary to the stipulation of Table 12.3. In fact, such an NP would be a prototypical Agent, and hence would be ellipsed.

- 9 The ensuing discussion is based on investigations I have undertaken into quotation in Gooniyandi and Nyulnyul. The Gooniyandi investigation was based on the fifty-text corpus mentioned in note 2; the Nyulnyul investigation on some fifteen texts, representing almost the entire textual corpus available.
- 10 Usually such appeals to authority are made at the beginning of a text, where the narrator makes reference to the words, the texts, of another narrator. These appeals, however, do not normally involve quotations; rather they typically denote the texts by NPs like *niyaji thangarndi* 'this word', 'this story'.

### 13 CONCLUSION

- 1 An English version of the text was provided by the speaker just before the Warrwa one. There are some interesting differences between the two versions. In particular, the space in which the gestures were produced was considerably larger in the English version than the Warrwa version, and the index finger was used more often. The coordination of gesture with speech also seemed to be different for the two versions, and the gestures were rather different: the gestures accompanying the English version did not represent the length of the chains; and the circle was drawn more quickly, two revolutions being completed while the speaker says 'in that old jailhouse i got that thing like this'; the circular shape is not described.
- 2 Twitching or throbbing in that part is often considered to be indicative of arrival of such a relative, or that something untoward has happened to them.
- 3 In my observation, at least partly codified system of signs was used by relatives and friends of Carmel Charles, who went deaf at around the time of the Second World War. How extensive this system was I do not know; nor do I know how widespread were such systems amongst Kimberley peoples for communicating with the deaf.
- 4 Tsunoda (forthcoming-b) describes the situation in Halls Creek as follows:

Language classes – on Jaru and/or Kija – are conducted in three Catholic schools and one state school. The intention itself is to be commended, but the classes the writer observed at the state school are not much more than *token* ones. The white teachers do not know the language. A few old ladies come to the class..., but what they do in the class is merely to repeat words or at best two-word sentences. Children do not acquire overall language ability, e.g. construction of sentences and their use in actual contexts. The principal is not interested in Aboriginal languages or culture, and would not seek advice from the linguist of the KLRC or from the present writer.

- 5 This is not suggesting that a simplified version of the language be taught. Some communities have emphasised their opposition to such proposals. Rather, the point is that acquisition of a language takes place over time, and by degrees, and that consideration needs to be given to what level of competence is feasible in the circumstances. It may be that a reasonable target is for children to be able to produce simple utterances in the language, rather than to learn a simplified language.

# LANGUAGES AND SOURCES

The following are some of the major and most accessible sources of information on each Kimberley language. While I have referred as far as possible to published sources, for some languages unpublished material – especially theses – have of necessity been listed. Most of the unpublished items can be obtained from the library of the Australian Institute of Aboriginal and Torres Strait Islander Studies, GPO Box 553, Canberra, ACT 2601, Australia ([www.aiatsis.gov.au](http://www.aiatsis.gov.au)). For a fuller listing of references on each language, up to 1988, see McGregor (1988a). ('Nothing' indicates that there is no work available that provides substantial information on the language; grammars and sketch grammars are underlined.)

*Aboriginal English*: Eades (1991, 1996), Eagleson *et al.* (1982), Harkins (1993), Hudson and McConvell (1984), Kaldor and Malcolm (1991), Koch (1985), Muecke (1982). (Most of these are not specific to Kimberley Aboriginal English.)

*Andajin*: Nothing

*Bardi*: Aklif (1999), Bowern (2004), Metcalfe (1975, 1979), Nekes and Worms (1953), Nicolas (1998, 2000)

*Broome Pearling Lugger Pidgin*: Hosokawa (1987)

*Bunuba*: Kimberley Language Resource Centre (1998), Knight (in preparation), Nicolas (1998), Rumsey (1982b, 1994, 2000)

*Doolboong*: Nothing

*Gajirrabeng*: Nothing

*Gambera*: Capell and Coate (1984)

*Gooniyandi*: McGregor (1985, 1987a,b, 1989a,b,c, 1990, 1994b, 1996a,c,d, 1997b, 1998a)

*Gulunggulu*: Nothing

*Gunin/Kwini*: Capell and Coate (1984), Crawford (1982), McGregor (1993)

*Gurindji*: McConvell (n.d.), McNair and McNair (n.d.)

*Guwiji*: Capell and Coate (1984)

*Jabirjabirr*: McGregor (1999a,b, 2000b), Nekes and Worms (1953)

*Jaminjung*: Cleverly (1968), Schultze-Berndt (2000)

*Jaru*: Tsunoda (1981), Tsunoda (forthcoming-a)

*Jawi*: Bird (1910, 1915), Bird and Hadley (n.d.)

*Jukun*: Nekes and Worms (1953)

*Juwaliny*: McKelson (n.d.-a)

*Karajarri*: Johnson (1992), McKelson (n.d.-b), Nekes and Worms (1953), Sands (1989)

- Kija*: Blythe (n.d.), Kofod (1996, n.d., forthcoming), Taylor and Hudson (1976), Taylor and Taylor (1971)
- Kriol*: Fraser (1977), Hudson (1983), Hudson and McConvell (1984), Mühlhäusler (1991), Mühlhäusler and McGregor (1996), Sandefur and Sandefur (1980)
- Kukatja*: Peile (1996, 1997), Valiquette (1993)
- Kuluwarrang*: Capell (1940) contains a small amount of grammatical information
- Malngin*: Nothing
- Mangala*: McKelson (1974, 1977), O'Ferrall (1974)
- Miriwoong*: Kofod (1978)
- Miwa*: Nothing
- Munumburru*: Nothing
- Murrinh-patha*: Street (1987), Walsh (1976, 1995, 1996, 1997)
- Ngardi*: Nothing
- Ngarinyin*: Capell and Coate (1984), Coate and Oates (1970), Coate and Elkin (1974), Rumsey (1982a)
- Ngarinyman*: Leeding (1973); Capell 1940 contains some information
- Ngarnawu*: Nothing
- Ngumbarl*: Nekes and Worms (1953)
- Nimanburru*: Nekes (1938), Nekes and Worms (1953)
- Nyangumarta*: McKelson (n.d.-c), O'Grady (1964), Sharp (1997, 1998)
- Nyikina*: Nekes and Worms (1953), Stokes *et al.* (1980), Stokes (1982, 1996)
- Nyininy*: Bell (1980a, 1980b); Tsunoda (1981) contains some information
- Nyulnyul*: McGregor (1994a, 1996b, 1999a,b, 2000b, 2003), Nekes and Worms (1953)
- Pidgin English*: Hudson and McConvell (1984), Mühlhäusler (1991), Mühlhäusler and McGregor (1996), Sandefur and Sandefur (1980)
- Pintupi*: Hansen and Hansen (1977, 1978)
- Umiida*: Capell and Coate (1984)
- Unggarrangu*: Capell and Coate (1984)
- Unggumi*: Capell and Coate (1984)
- Walmajarri*: Hudson (1978), Hudson *et al.* (1978), Richards and Hudson (1990)
- Wangkajunga*: Jones (2001, 2003)
- Wanyjirra*: Tsunoda (2001a,b, 2002)
- Warlpiri*: Hale (1981, 1982), Hale *et al.* (1995), Nash (1982, 1986), Reece (1970, 1975, 1979), Simpson (1991), Swartz (1988); Swartz (1982) contains a number of useful papers
- Warrwa*: McGregor (1994c, 1998b, 1999a, 2000b, 2002b)
- Wilawila*: Capell and Coate (1984)
- Winyjarrumi*: Capell and Coate (1984)
- Wolyamidi*: Nothing
- Worla*: Rumsey (1990)
- Worrorra*: Capell and Coate (1984), Clendon (1999, 2000, 2001), Clendon *et al.* (2000), Love (1931–2, 1934 (published as Love 2000), 1938); see also Love (1936)
- Wunambal*: Capell (1941), Capell and Coate (1984), Carr (2000), Vasse (1991), Vászolyi (1976a,b)
- Yawijibaya*: Capell and Coate (1984)
- Yawuru*: Hosokawa (1991, 1995), Nekes and Worms (1953), Yawuru Language Team (1998)
- Yiji*: Nothing
- Yulparija*: Burridge (1996), McKelson (1978)

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