Bininj Gun-Wok

A pan-dialectal grammar of Mayali, Kunwinjku and Kune

Volume 1

NICHOLAS EVANS

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Volume 1: Chapters 1–8

Erratum:

On the back cover, the coeditor of 'Problems of Polysynthesis' is erroneously given as Patrick McConvell; it should be Hans-Jürgen Sasse.

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Bininj Gun-wok: a pan-dialectal grammar of Mayali, Kunwinjku and Kune

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The cover picture depicts a 'dreaming tree' with dilly-bags (net bags) hanging from its branches, and is by Kune speaker Lena Yarinkura of the Burnungku clan. Painting in the author's possession. The artist's permission to reproduce it here is gratefully acknowledged.

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Preface

This book started out in 1986 as part of a consultancy with the Australian National Parks and Wildlife Service and the Gagudju Association to develop an orthography for Gun-djeihmi and materials that could be used in Kakadu National Park to interpret various facets of Aboriginal culture such as ethnobotanical knowledge, place names and oral traditions around the rich galleries of ancient rock art found there. Although there was already substantial material on a related dialect, Kunwinjku, through work by Arthur Capell, Lynette Oates, Peter Carroll, Steve Etherington and others (see §1.6), Gun-djeihmi, like the other dialects of Bininj Gun-wok, was virtually undescribed. I therefore began to prepare a descriptive grammar of the Gun-djeihmi dialect.

Immediately I became interested in the theoretical problems posed by a polysynthetic language where so much information was concentrated into long verbal words like *bayiwarlkgarrinj* 'he hid himself away with it', *bigomdjudmeng* 'it stuck in her throat' or *barribebbeganagang* 'they each took some' (these examples are taken from one of the first texts I recorded, from Toby Gangele – see Text 1 in the Appendix). This 'genius' for concentrating all the information on the head of the clause was the exact opposite of what I was used to in Kayardild, the Queensland language I had worked on previously, where the basic organising principle is to percolate down all possible morphosyntactic information to dependents, leading to massive stacking up of case, tense and interclausal agreement on nominals. In the late 1980s there was growing interest in such topics as noun incorporation, adverbial quantification and the significance of bound pronominals for syntactic structure, but I did not feel that existing sources on Kunwinjku, or other related languages for that matter, provided adequate discussion of these issues, so in my elicitation work I began to get detailed material on these topics (especially with two of my outstanding Gun-djeihmi teachers, Toby Gangele and Eddie Hardy).

I began searching the descriptive traditions of other areas of the world for models of how to organise the grammar of a polysynthetic grammar. This is a topic that has challenged many of the great thinkers about linguistic structure, from Humboldt in his discussion of the structure of classical Aztec and Sapir in his grammar of Southern Paiute, to, in more recent times, work by Launey on Classical Aztec, Mithun on Seneca and Mohawk, Rice on Slave, Sasse on Cayuga, Foley on Yimas, and in Australia especially McKay on Rembarrnga and Heath on Nunggubuyu. But I still found that many of the questions I was interested in were not dealt with at the level of detail needed to really understand how the language worked: How do you say X in a polysynthetic language? Now that we have a list of all the dozens of verbal morphemes, how do we put them together into a meaningful construction? For example, how do the reflexive suffix, the benefactive prefix and noun incorporation all

interact inside a verbal word? How do you work out what scope a bound prefix like 'all' or 'the wrong (one)' will have if it can't be placed next to the element it modifies? Does pronominal reference work in the same way once pronominal elements become obligatory? Does noun incorporation really have the same discourse function in object and intransitive subject function? Do the radical differences in structure between polysynthetic and non-polysynthetic languages mirror a difference in underlying semantic structure that requires us to discard our Eurocentric biases before we can adequately capture how the language works (as per the Boas-Sapir tradition)? Is it merely a surface phenomenon (as per Mark Baker's recent work), or are there differences of a more subtle nature?

Further, in the last few years, new work on construction grammar has emphasised the need to characterise the meanings of linguistic gestalts, and I believe that this is an aspect of polysynthetic languages that has been rather neglected, at the expense of concentrating on spectacular arrays of individual morphemes. I therefore decided to write a detailed grammar that would pay attention to the range of questions outlined above, though I am under no illusion of having done justice to all these issues.

The second thing that struck me about Gun-djeihmi was the exceptionally rich sociolinguistic matrix it was set in. To begin with, there are two special registers that index kinship relations: a special register for use with respected relatives like one's mother-in-law (§1.5.1), and a complex system of 'triangular kin terms' that calculate the kinship relations of a referent from the simultaneous perspectives of speaker and hearer (§1.5.2).

Equally complex is the pattern of inter-nested variation between dialects. From the start, although my initial assignment was to work on the Gun-djeihmi dialect, many of the texts and even sentence materials I gathered mixed features from other dialects, which was hardly surprising given that many of my teachers had either started out speaking other dialects and switched to Gun-djeihmi as their life circumstances changed — from Kunwinjku, Kuninjku, Gun-dedjnjenghmi or Pine Creek Mayali — or else were spending a lot of time talking to Kunwinjku speakers. As well, there was lots of talk about clan-specific variants; Nipper Kapirigi, for example, began our first session by mentioning specific details of the Badmardi clan lect. Articulated judgments of linguistic closeness often stressed links to neighbouring languages as more important than those to neighbouring dialects — Gun-djeihmi speakers would regularly state that their dialect was 'like Jawoyn' or 'like Dangbon' rather than 'like Kunwinjku'. And often, when I employed the standard elicitation technique of asking whether particular made-up sentences were grammatical, Gun-djeihmi speakers would say things like 'that's how Kunwinjku people talk' or 'sounds like Maningrida side' rather than simply 'that's incorrect'.

If only to make sense of such statements, identify intrusions from other dialects, and transcribe multi-dialectal or multi-lingual conversations, I needed to find out about these other dialects; so from 1989 I began to carry out fieldwork in other areas, particularly with Kuninjku and Kune speakers in the small and very traditional outstations some hundred kilometres to the east, south of Maningrida. Kuninjku and Kune exhibited all sorts of interesting differences from both Gun-djeihmi and Kunwinjku, such as the disappearance of gender agreement from Kune, the loss of the dual number in the divalent prefix paradigms, and the use of the instrumental as an ergative, and I began to realise that the structural heterogeneity of the dialect chain was much greater than suspected. From the point of view of learning the language, working in these outstations had the further advantage that, since these communities (unlike those in Kakadu) used hardly any English or Kriol, I was forced to use the language in all interactions. Finally, in 1996, when working with Murray Garde in a literacy workshop on Dalabon/Ngalkbun at Barunga, some of the Mayali speakers there

invited us to visit the small community of Manyallaluk (formerly Eva Valley), and record some language there. Manyallaluk Mayali again proved to have all sorts of grammatical differences from all the other varieties, and as well to be an interesting case of a recent koine (or dialect blend) formed earlier this century when speakers of various dialects moved south to work in a small mining community.

By the mid 1990s, then, I decided to work together all these materials into a pan-dialectal grammar, loosely guided by Weinreich's notion of a 'diasystem', or deeper underlying system in terms of which specific dialect variants can be understood.

From a theoretical point of view, this means abandoning the fiction that you are describing a system inside any one speaker's head: no-one is fully conversant with all the dialects described here. On the other hand, speakers often phrase their judgments of correctness in terms of different dialect norms (for example, if I ask a Kune speaker if you can say *daluk ngalmak*? [woman FE-good] for 'good woman', I am told 'that's how people talk at Oenpelli'). And they often play with dialect differences, for example by making characters in texts speak other dialects than their own (see Text 6 for an example) or by accommodating to certain dialect features of visitors in a playful way or, out of deference, starting off by adopting salient features of a host's dialect to show they acknowledge their ownership of country they are visiting. One goal of this grammar, then, is to capture speakers' models of the wider system of codes in which they participate; it would be artificial to put this off until later (say, until we have full grammars of each separate dialect), because the investigator constantly encounters dialectally mixed data, and because so much speech behaviour makes use of what are assumed to be mutually known differences in dialect systems.

I believe there are also real descriptive and explanatory advantages in taking a pan-dialectal approach, of the type Weinreich recognised when developing his notion of diasystem. In many cases, comparison across dialects reveals much about the language that would remain puzzling if we just had information about the behaviour of one dialect. For example, the way in which gender agreement does not match the set of noun classes very neatly began as a puzzle when I was looking just at Gun-djeihmi, but once I looked at all dialects it is clear that it is just one step in a process by which different dialects have, to different degrees, simplified an original four-gender system (still found in Kunwinjku), while all retaining an original system of four overt noun-class prefixes (see §5.5). Or, to take a second example, comparing the structure of the divalent pronominal prefixes across dialects reveals a clear typological patterning in where dual marking appears and where it is neutralised (§10.2.2). And, from the viewpoint of grammaticalisation, cross-dialectal comparisons allow one to pin-point rather clearly the way in which certain innovations (such as the 'part-class' marked by the *-no* suffix in the eastern dialects) proceed by extending constructions that are more limited in other dialects.

There is also a good practical reason for writing a pan-dialectal grammar: until now, most published work has focussed on the Kunwinjku dialect, but as Bininj Gun-wok represents one of the few Australian languages with a growing number of speakers there is a need for an informed description of the whole suite of varieties to meet various practical goals. The needs of the other speech communities, in terms of planning orthography, developing bilingual programs, assessing the skills needed by interpreters dealing with speakers of various dialect backgrounds, getting information to language centres, evaluating the feasibility of unified vs dialect-specific dictionary programs and so on, will all be better met by a description that encompasses the whole dialect chain.

This is not to say that there are no major drawbacks of the approach I have taken here. Firstly, it is difficult to organise material in those cases where the subsystems are not parallel,

as in the case of the tense/aspect/mood suffixes (§9.3) or the kinship system (§1.4.1). An ideal investigator needs to be on the alert for such systemic differences, and not presume too much parallelism when dealing with unfamiliar dialects; I have no doubt that subsequent detailed work on particular dialects will show me to have sometimes failed on this point. Second, constraints on time and opportunity have meant that it has not always been possible to get comparably detailed data on all topics, so that different dialects will assume centre stage according to the problem being discussed. Again, I hope that this grammar will encourage further work to bring our knowledge of all dialects to a level where truly systematic comparison is possible. Thirdly, the existence of three different orthographies (§1.2.6) and the switches between them according to the variety in focus will undoubtedly make the reader's task harder in some places than it would have been in a grammar based on one variety.

In dealing with these three types of shortcoming, I have used different approaches in different places, according to what I have judged the most illuminating strategy. Sometimes I compare particular subsystems one dialect at a time (pronominal prefixes), sometimes I give a more detailed exposition of one dialect's system with notes on how others differ (e.g. demonstratives), while at other times I begin with a discussion of the most complex system (e.g. the Kunwinjku noun class and gender system) followed by a discussion of how the others can be derived from this via various simplifications or transformations.

A final shortcoming is my omission of any discussion of intonation from this grammar. Originally I planned a chapter on this topic, but realised that it was too complex a topic to do justice to so briefly. Instead, a separate book on this topic is envisaged, with my colleagues Judith Bishop and Janet Fletcher, growing out of our recent work (see Bishop 1997a,b, 2002; Bishop & Fletcher forthcoming; Fletcher & Evans 2000).

The language described in this book is in the fortunate and unusual position, for an Australian language at least, of not being under immediate threat of extinction. This makes it possible for me to dedicate it equally to the many great *bininj* who taught me and who have now left us, and to the generations to come: *ngurri-bulerri ngurri-gerrnge, ngurri-wernh-wokdi gun-wok.*

Acknowledgments

My foremost acknowledgment is to the many Aboriginal people who tried, with insight, patience and humour, to teach me about their language, country and culture: for Gundjeihmi, †Toby Gangele, †Nipper Kapirigi, †George NaMingum, Minnie Alderson, †David Kanari, Eddie Hardy, Ruby Ngalmindadjek, Violet Lawson, Mandy Muir, Jessie Alderson, Judy Alderson, Fred Nagawuli, Shirley Nagawuli, Susan Ngaladjin.gu, Yvonne Marrgarula, Bluey Ilgirr, Jacky Namarndala and †Mick Alderson; for Gun-dedjnjenghmi, Lofty Nabardayala Nadjimerek and Jimmy Kalarriya; for Kunwinjku, †Big Bill Neidjie, Esther Djayhgurrnga and Goldie Blyth; for Kuninjku, Mick Kubarkku, †Big John Dalngadalnga, Big Bill Birriyabirriya, Ivan Namirrki and Marina Murdilnga; for Kune, †David Karlbuma, Victor Rostrin, Tom Wood and Charlie Brian; and for Manyallaluk Mayali, Mary-Anne Kalamuka, Mavis Jumbiri, †Hilda Dooley and Lily Dooley. I hope that in spite of its shortcomings this grammar will stand as a tribute to their keenness of mind and fine judgments about human nature.

It is likewise a pleasure to thank the many other colleagues and friends who have helped in various ways with this study. Murray Garde put me in touch with many Kuninjku people, and on many joint fieldtrips generously shared his unparallelled insights into Kuninjku, as well as helping check out emailed questions during the last phase of writing the grammar. George Chaloupka and Pina Giuliani passed on some of their deep knowledge of the Kakadu region's traditional culture. At Kakadu National Park, Hilary Sullivan, Peter Wellings, Tony Press, Ivan Haskovec and Dave Lindner assisted in numerous practical ways. Jeremy Russell-Smith and Clyde Dunlop gave botanical advice and identification. Luke Taylor and Jon Altman were generous in supplying ethnographic materials. Steve Etherington shared some of his vast knowledge of Kunwinjku; †Ken Hale made his Kunwinjku fieldnotes available, and Sue Kesteven and Peter Carroll also passed on numerous observations about Kunwinjku. Judith Bishop made available her materials on Manyallaluk Mayali. I thank all these people for their intellectual generosity.

My ideas about the structure of the language were able to be exposed to critical discussion in three courses I taught on the structure of Mayali — at the University of Melbourne in 1989, at the Second Australian Linguistics Institute at LaTrobe University in 1994, and at the Institut für Sprachwissenschaft of the University of Cologne in 1997–98, as well as at a shorter half-day teach-in at the Workshop on Challenges to Inflectional Description, SOAS in October 1997. I thank the participants in all those courses for their many useful comments and well-aimed questions during and for many years after the courses, in particular Dunstan Brown, Grev Corbett, Robert Handelsmann, Dick Hudson, Dagmar Jung, Marianne Mithun, Ilana Mushin, Rachel Nordlinger and Andrew Spencer.

Abbreviations

*	1. Unacceptable example	du	dual
	2. Reconstructed form	DUB	dubitative
o	number neutralised	DV	deverbal
ø	zero morpheme	EMPH	emphatic
1	first person	ERG	ergative
2	second person	EXC	exclusive
3	third person	EXT	extended
12	first person inclusive	FAC	factitive
I	noun class, typically masculine	FE	feminine gender agreement
II	noun class, typically feminine	fem	feminine (pronoun)
III	noun class, typically vegetable	FUT	future
IV	noun class, typically neuter	GEN	genitive
a	augmented	GENTIL	gentilic
ABL	ablative	GIN	generic incorporated nominal
ANA	anaphoric (demonstrative)	h	higher object
ANA.IMM	immediate anaphoric	IO	indirect object
BEN	benefactive applicative	IMM	immediate
BPIN	body-part incorporated nominal	IMM.PREV	just mentioned (demonstrative)
		IMP	imperative
CAUS	causal	IN	incorporated nominal
CENTRIP	centripetal	INC	inclusive
CHACLOC	characteristic location	INCEP	inceptive
COM	comitative applicative	INCH	inchoative
COMIT	comitative (nominal suffix)	INSEP	inseparable
CONJ	conjunction	INSTR	instrument
CTRFAC	counterfactual	intr.	Intransitive
DEM	demonstrative	IO	indirect object
DET	determiner	IRR	irrealis
DIREC	direction	ITER	iterative
DIST	distributive	IVF	incorporating verb form

1	lower object[1]
LOC	locative
m	minimal (not usually marked in glosses)
MA	masculine gender agreement
masc	masculine (pronoun)
NEG	negative
NEU	neuter
nm	non-minimal
NP	1. non-past (in glosses)
	2. noun phrase (in body text)
O	object
OBL	oblique
P	past
PERSIS	persistive
PI	past imperfective
pl	plural
POSSD	possessed noun
PP	past perfective
PR	present
PRIV	privative
PROP	proprietive
PRPTY	property
PRT	part suffix
PROHIB	prohibitive
PROX.SER	proximal seriated
Q	question marker
RR	reflexive/reciprocal
REDUP	reduplication
REL	relativiser
REM	remote (demonstrative)
RESP	respect (in trirelational kin terms)
S	1. subject (intransitive)
	2. subject (in word order discussions)

sg	singular
sp.	species
SUB	subordinate marker
SUBJ	subject (general)
TAM	tense/aspect/mood
tr.	transitive
ua	unit augmented
V	verb
VBSR	verbaliser
VE	vegetable
VEG.LOC	location (plant)
VIOL	with violent intent
ˀYON	yon, distal demonstrative
YON.ID	distal identificational
… …	in glosses, where one word translates two in vernacular
√	stem form (where a verb is cited in non-past without any pronominal prefixes)

Subject/object combinations like 3a/1du mean 'third augmented subject acting upon first person dual object', i.e. 'they doing it to us two'. Minimal number is not usually marked on glosses, so that 3/1 is to be interpreted as meaning 'third minimal subject acting upon first minimal object', i.e. '(s)he or it acting upon me'.

Boundaries

-	morpheme boundary
.	lexicalised morpheme boundary, e.g. in old compound; only shown where relevant
=	clitic boundary
–	element that is positionally bound to the preceding word, e.g. pronouns after verbs in some cases
$	syllable boundary
[…]	foot boundaries
%…%	encloses underlying forms

---

[1] Note that although the number '1' and the letter 'l' are typographically similar, they occur in different slots, since the latter always directly follows the number '3', while the former never does.

Kinship abbreviations

B	brother
C	child
D	daughter
e	elder
F	father
H	husband
M	mother
S	son
W	wife
y	younger
Z	sister

Concatenations of the above, such as MM or FZ, are interpreted as 'mother's mother', 'father's sister', and so forth, except that e and y modify the symbol which follows, as in eB 'elder brother' and yZ 'younger sister'.

Languages, dialects, registers

A	All dialects
BGW	Bininj Gun-wok
D	Dalabon
Dj	Gun-djeihmi
Dnj	Gun-dedjnjenghmi
E	Kune (broad sense)
E:D	Kune: Dulerayek
E:N	Kune: Narayek
I	Kuninjku
k.k.	Kun-kurrng (avoidance register)
o.d.	other dialects
o.l.	ordinary or 'outside' language (i.e. everyday register)
R	Rembarrnga
W	Kunwinjku

M	Mayali (broad sense)
Mkr	Makassarese
MM	Manyallaluk Mayali
X/Y	Example in which dialects X and Y are code-mixed
$	avoidance register (in word list only)

Sources

E&E	Etherington and Etherington (1994)
GID	Garde (1997), Dictionary of Kuninjku
KH	Hale (1959) field notes
Karrarrkid	*Jesus Nungka Karrarrkid*
KS	*Nganjmira*: Kunwinjku Spirit
MT	Mayali Texts (Evans 1991)
OM	Oenpelli monologue: Berndt and Berndt (1951a)
OP	Carroll (1995)
PC	Carroll (1976)
T	Text (Appendix 1)

Other conventions

Translations are normally shown in single quotes, except that double quotes are used for specifically Aboriginal English terms.

Sometimes I use the initials of speakers drawn from the set acknowledged on p.vii, and my own initials (NE) in the case of interviews in which I was a participant.

I use smaller fonts in paragraphs of a more esoteric nature, for hard-core readers only.
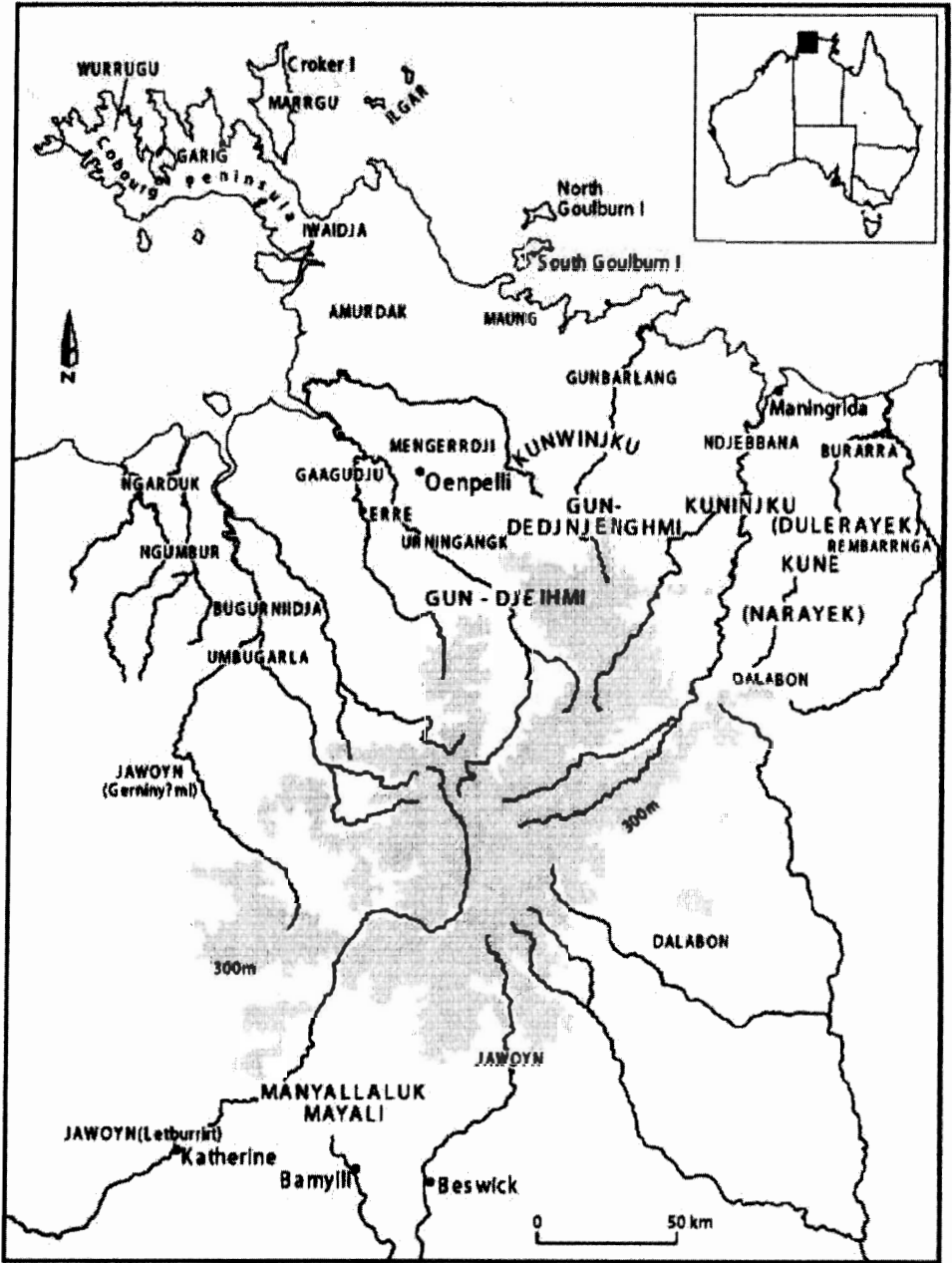
Map 1: Location of Bininj Gun-wok dialects

1 *The language and its speakers*

1.1 Linguistic type

Phonologically, Bininj Gun-wok is typical of Australian languages in having paired stop and nasal phonemes at each point of articulation (except the glottal), lacking fricatives, having a relatively rich inventory of liquids (two rhotics and two laterals) and having a strict one-consonant onset for syllables.[1] More specifically, it is typical of the languages of central Arnhem Land and contrasts with most other Australian languages, in having a phonemic glottal stop, two stop series (short and long), five vowels without a length contrast, relatively complex consonant clusters in codas and no essential distinction between word and syllable phonotactics.

Like most of the Gunwinyguan languages, it is richly polysynthetic. Verbs have a morphological template with around twelve prefix slots showing subject and object pronominal information (distinguishing three numbers for each — minimal, unit augmented and augmented — though with some neutralisations), direction, aspect, various types of adverbial and quantificational information, applicatives, 'generic' and 'body part' incorporated nominals and spatial prefixes;[2] of these only the first, pronominal, slots are obligatory. (Note that, unlike in many North Australian languages such as Maung and Nunggubuyu, verbs do not exhibit gender agreement.) Then follows the verb root, an optional suffix for reflexive/reciprocal and a final tense/aspect/mood inflection. Two examples of sentences comprising a morphologically elaborate verb with little or no other material are 1.1a and 1.2a.

1.1 a.   *Aban-yawoih-warrgah-marne-ganj-ginje-ng.*
Dj   1/3pl-again-wrong-BEN-meat-cook-PP
        'I cooked the wrong meat for them again.'

    b.   *Aban-yawoih-warrgah-marne-ginje-ng*   *gun-ganj.*
Dj   1/3pl-again-wrong-BEN-cook-PP   IV-meat
        '= 1.1a'

---

[1]   Though western dialects optionally drop some initial consonants in word-initial position.
[2]   Additional complexity comes from the fact that verb stems are often compounds, sometimes resulting from old frozen incorporations: see §8.2.1.

1.2 a. *Al-djal-gudji ba-gurlah-mirnde-bimbu-ni.*
Dj   FE-just-one   3/3P-hide-many-paint-PI
        'Just she on her own painted lots of buffalo hides.'

    b. *Al-djal-gudji ba-mirnde-bimbu-ni gun-gurlah.*
Dj   FE-just-one   3/3P-many-paint-PI   IV-hide
        '= 1.2a'

As these illustrate, noun incorporation is optional, involves dropping the noun class prefix (here *gun-*) and there is basic synonymy between incorporated and unincorporated versions, though incorporated objects tend to be given or situationally expected and incorporated subjects of intransitive stance verbs tend to be new and given a presentative reading (§10.4.3.3). A corollary of this basic synonymy is that noun incorporation does not affect argument structure, but rather provides referential specification about the absolutive argument of an already-created argument array.

Incorporated nominals, in fact, have three functions: to index generic-type nouns, as in 1.1 and 1.2 above, to localise the effects of the predicate on a body part of the absolutive argument (1.3), or to supply a secondary predicate, again on the absolutive argument (1.4).

1.3   *A-bid-garrme-ng   daluk.*
Dj   1/3-hand-touch-PP woman
        'I touched the woman on the hand.'

1.4   *Ga-rrarrkid,   galuk nga-rrarrgid-ma-ng.*
Dj   3-alive   FUT   1/3-alive-pick.up-NP
        'It's alive, I'll pick it up alive.'

Not all noun roots are incorporable and in fact the set of incorporable roots is essentially the same as the set of roots participating in nominal compounding; I shall call these 'compounding roots'. Compare 1.5 which illustrates the root *dulk* of *gun-dulk* 'tree' incorporating 1.5a and compounding with *guyeng* 'long, tall' (1.5b), with 1.6 which illustrates the impossibility of the root *dubang* of *an-dubang* 'ironwood tree' either incorporating 1.6a or compounding 1.6b; instead, they may be doubled by a semantically related root (here *dulk* 'tree') which is either incorporated 1.6c or compounded 1.6d. See §8.1.3.3 for a list of compounding roots.

1.5 a. *Barri-dulk-djobge-ng.*   b. *an-dulk-guyeng*
Dj   3a/3P-tree-cut-PP   VE-tree-long
        'They cut down the tree.'   'tall tree'

1.6 a. **Barri-dubang-djobge-ng.*   b. **an-dubang-guyeng*
Dj   3a/3P-ironwood-cut-PP   VE-ironwood-long
        'They cut the ironwood tree.'   'tall ironwood tree'

    c. *Barri-dulk-djobge-ng an-dubang.* d. *an-dulk-guyeng   an-dubang*
        3a/3P-tree-cut-PP   III-ironwood   VE-tree-long   III-ironwood
        'They cut the ironwood tree.'   'tall ironwood tree'

There are several reasons for seeing incorporated nouns as (part of) the argument expression, rather than as simply altering the meaning of the verb so that it has a narrower meaning than it otherwise would. Firstly, they are linked to a specific argument position, which can be altered by argument-changing morphemes such as the comitative applicative

(§10.1). Secondly, they may be referential. Thirdly, pairs like 1.1a,b and 1.2a,b are effectively synonymous and nominal incorporation does not affect the argument structure of the verb (e.g. transitivity and choice of pronominal prefixes is left intact). And fourthly, it is very much a lexically accidental fact whether a given noun root can be incorporated; for example, √*ganj* 'meat' is incorporable, but √*me* 'vegetable food' is not and furthermore the same facts about incorporability hold regardless of the incorporating verb. For all these reasons I treat certain types of incorporated nominals as (part of the expression of) arguments throughout this grammar. Note, however, that there are also many formally similar combinations, which involve compounding rather than incorporation and where the nominal root does not function as an argument, but is simply a morphological formative in the verb stem. Tests for distinguishing compounding from incorporation will be discussed in §8.1.3.

Turning now to grammatical relations, it is impossible to identify these on the basis of anything but verbal morphology. There are no productive voice alternations, biclausal causatives, complementation constructions, obligatory case marking on core NPs,[3] or constraints on NP order or deletion that can be used to identify subjects, objects or indirect objects. The grammatical relations 'subject', 'object' and 'indirect object', as well as derived object- and indirect object-like arguments (formed by the comitative and benefactive applicatives) are defined solely on the basis of registration by pronominal prefix, control of reflexive/reciprocal formation and selection of noun incorporation (§10.1.2).

Three argument-changing affixes alter the argument structure of the basic root: a comitative prefix *yi-* (cf. *golung* 'go down', *yigolung* 'goes down with, takes down'), a benefactive prefix *marne-* (cf. *ginje* 'cooks', *marneginje* 'cooks for') and a reflexive/reciprocal suffix *-rr(en)*[4] (cf. *djobge* 'cuts', *djobgerren* 'cut self, cut each other'). Various logical combinations of these affixes are possible (e.g. *marneginjerren* 'cook for each other', *marneyigolung* 'take down for') though the reflexive interpretation of *-rr(en)* is only available when this is the first step in semantic composition, so that *marnedjobgerren*, for example, can mean 'cut oneself for' but not 'cut for oneself'. There are also a number of other senses available for these affixes, for example causation for *marne-* and collective action for *-rren* and these also interact in complex ways with the order of argument composition and with the expression of the object argument. See §10.3 for details.

The verbal affix positions are the only obligatory places where arguments must be represented. Overt external nominals (including free pronouns) representing subjects and objects are not obligatory, though not infrequent, especially when used to supply contrastive information (1.7), to give fuller information about the entity in question (1.6c, 1.8, 1.9) or to make up for neutralisations in the pronominal prefix system (1.10; see §10.2.3). Sometimes other morphological material within the verb, such as the collective use of the reflexive-reciprocal (1.11) or numero-spatial quantifiers like *mirnde-* 'many' (1.2) also adds specificity to the referring expression. As a result, referring expressions are constructed by unifying material from a number of verbal affix positions with any external material (§6.1.3, §6.2). In the following examples such material is shown in bold.

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[3]　Though Kune and Manyallaluk Mayali have an optional ergative use of the instrumental — see §5.2.1.2.

[4]　*-rr-* is the reflexive/reciprocal morpheme, but verbs bearing it will (like other verbs) be cited in their non-past form, which ends in *-rren*.

1.7   *Ngudda   ngadburrung   yi-ngeibu-n   balanda   raft,   **ngad**   **ngarri**-ngeibu-n*
Dj   you   brother   2/3-call-NP   balanda   we   1a/3-call-NP

 bininj,   *wularl.*
 Aborigine   Wularl
 'You, brother, call it 'raft' in balanda (language), **we Aborigines** call it *wularl*.'

1.8   ***An-biya***   *garri-**yerrng**-ma-ng,   bu   garri-worrhm-i,   an-dehne*
Dj   VE-different   12a-wood-get-NP   REL   12a-light-NP   VE-this

 an-geb-warre.
 VE-flame-bad
 'We'll get some different wood when we make the fire; this wood doesn't give
 a good flame.'

1.9   *Ngakngak*   ***bogen*** *ga-**rrabu**-gurrme.*
Dj   grey.crowned.babbler   two   3-egg-layNP
 'Grey-crowned babblers lay two eggs.'

1.10   ***Ben**-na-ng*   ***berrewoneng.***
I   3/3(u)a-see-PP   them.twoOBL
 '(S)he saw the two of them.'

1.11   ***Barri**-dowe-**rr**-inj   **rouk.***
Dj   3aP-die-RR-PP   all
 'They all died.'

One particular semantic problem that arises from the obligatoriness of subject and object pronominal prefixes concerns referentiality. Since they are obligatory, third person pronominal prefixes must still be used for non-referential arguments (1.12) and an important role of external material is to specify referentiality, whether through the use of free pronouns (1.13) or demonstratives (1.14).

1.12   *Alege   daluk   gaban-du-ng.*
Dj   FE:DEM   woman   3/3pl-scold-NP
 a. 'That woman is scolding them.'
 b. 'That woman scolds people.'

1.13   *Alege   daluk   gaban-du-ng   bedda.*
Dj   FE:DEM   woman   3/3pl-scold-NP   them
 'That woman is scolding them.'

1.14   *Alege   daluk   gaban-du-ng   namekke   bininj   rouk.*
Dj   FE:DEM   woman   3/3pl-seek-NP   MA:DEM   person   all
 'That woman is scolding those people.'

The modulation of referentiality by the external elements interacts with the interpretation of some of the adverbial prefixes on the verb. Thus the prefix *yawoih-* indicates repetition (§11.3.5.1) and can mean either 'again' or 'another' according to a range of factors, one of which is the referring status of the object, or otherwise, as determined by the external demonstrative.

1.15 a. *Gunubewu   nga-yawoih-ma-ng daluk,   nga-yawurrinj.*
Dj   maybe   1/3-again-marry-NP woman 1-young.man
        'I might marry another woman, I'm a young man.' (my last wife died)

   b. *Gunubewu   nga-yawoih-ma-ng alege   daluk.*
       maybe   1/3-again-marry-NP FE:DEM woman
        'I might marry that woman again.' (who I split up from)

Nominal morphology is more limited. Many case roles go unmarked. Subject and object are not overtly marked for case, except for optional ergative marking in some dialects. Marking for such peripheral roles as location and goal is normal but not obligatory and there is no case agreement across the words of a nominal group. There are, however, rich possibilities of derivation and compounding.

The most important aspect of nominal morphology is the system of gender agreement, marked on agreement targets by a series of (maximally) four prefixes (masculine, feminine, vegetable and neuter). A formally identical set of prefixes (glossed I, II, III and IV) is found on most nouns, often in sets of related meanings (e.g. *na-ngordo* 'male leper', *ngal-ngordo* 'female leper', *kun-ngordo* 'leprosy'; *kun-mim* 'eye', *man-mim* 'fruit'). I shall refer to these as noun class prefixes. Nouns may also be unprefixed (e.g. *bininj* 'man; person; human', *mim* 'breathing hole of animal that has buried itself underground').

The default case (at least in Kunwinjku, the only dialect with four clear genders) is for there to be congruence between gender and noun class prefixes, except that unprefixed (or 'zero class') nouns can have any gender:

1.16 a. *na-mekbe na-kohbanj / na-mekbe bininj*
W   MA-DEM   I-old.person MA-DEM   man
        'That old man/that man'

   b. *ngal-mekbe ngal-kohbanj / ngal-mekbe daluk*
       FE-DEM   II-old.person   FE-DEM   woman
        'That old woman/that woman'

   c. *man-mekbe man-dubang / man-mekbe kamarn*
       VE-DEM   III-ironwood   VE-DEM   [yam.sp.]
        'That ironwood tree/that "cheeky yam"'

   d. *kun-mekbe kun-kanj / kun-mekbe balanda*
       NEU-DEM   IV-meat   NEU-DEM   European
        'That meat/that English (language)'

However, there are many cases of non-congruence, for example *man-mekbe kun-dalk* 'that grass' (class IV, but vegetable gender) and *na-mekbe man-djewk* 'that rain' (class III, but masculine gender); this complex topic is discussed in §5.5. The ubiquity of non-congruent agreement, as well as the fact that logically they are two quite different categories (gender is inflectional and obligatory, while noun class is derivational and optional in the sense that not all nouns are prefixed), is the reason for treating these as two separate, though related, systems. Outside Kunwinjku, the other dialects have all eroded the gender agreement system to some extent, making differences in gender systems one of the areas in which the dialects differ most markedly. The noun-class systems, on the other hand, exhibit much less variation across dialects.

As in many polysynthetic languages, there is practically no distinct non-finite morphosyntax: to say 'I saw him swimming', for example, one says 'I-him-saw he-swims' and 'I want to go' is 'I-want I-go' (§14.1). And the fact that all non-verbal material is optional anyway means that there it is meaningless to postulate coreferential NP-deletion in certain types of subordinate clause. However, there are some more subtle constraints making it possible to identify subordinate constructions (as opposed to distinct subordinate morphosyntax), such as sequence-of-tense constraints; complements of perception clauses, for example, must be in the non-past even when referring to past events. The possibilities of incorporating one verb into another, as in 1.17, also makes it possible to express certain complex events, expressible through subordinate clause syntax in other languages, as a single verbal word:

1.17   *Ga-[ganj-ngu-nihmi]-re.*
Dj   3-meat-eat-IVF-goNP
          '(S)he is going along eating meat.'

In any case, clause boundaries are rather difficult to establish owing to a number of factors, especially the free word order, the non-obligatoriness of external nominals and the fact that the lack of case-marking on most external nominals makes it hard to place them in a particular clause on the basis that a particular verb has governed their case. In practice the difficulty of establishing clause boundaries poses few problems for semantic interpretation: the verb, whose own boundaries are quite clear, provides a précis of the clause, whose details are then expanded in other material loosely adjoined before or after the verb.

1.2 The Bininj Gun-wok dialect chain

1.2.1 Traditional and present location of speakers

The language I will refer to as Bininj Gun-wok, but which has been most widely referred to in the literature as Kunwinjku (Gunwinggu) or Mayali (see §1.2.3), claims perhaps two thousand fluent speakers in the area roughly bounded by the Stuart Highway to the west, the Arafura Sea to the north, the Goyder River to the east and the Roper River to the south: see Map 1.

Perhaps half of these people speak it as their first language; at least over the last century, it has been the major lingua franca of this area, used in one variety or another between speakers of such different Aboriginal languages as Iwaidja, Maung, Jawoyn, Ndjébbana, Rembarrnga and Dalabon when they come together for ceremonial and other gatherings. The situation described by Capell still holds true today, except that some of the other languages he mentions are actually giving way to Bininj Gun-wok:

> [T]he language has become well-known among other tribes to which it is not vernacular, so that it serves as a lingua franca for the whole western half of Arnhem Land and has thus an importance greater than the actual number of its speakers would suggest. This is the reason for its being chosen as a vehicle for Mission work. Not only the Church of England Mission, but also the Methodist Mission at Goulburn Island is able to use this language, for it is generally known to the Maung and Gunbalang tribes as well as their own language and it can be used among the Gungorogone and other tribes about the Liverpool River. (Capell n.d., cited in Oates 1964)

To make this more concrete, since I began working in the area in 1985 I have encountered second-language speakers of one or another variety over the whole area mentioned above: as far west as Adelaide River ('own' language: Warray), as far north as Croker Island ('own' languages: Marrgu, Ilgar or Iwaidja), as far east as Maningrida and Gochan Jiny-jirra ('own' language: Burarra) and as far south as Bulman ('own' languages: Dalabon and Rembarrnga). In the south and west Bininj Gun-wok is giving way to an English-based creole (usually spelt Kriol), but in the north and east its status as a lingua franca remains firmly established.

It is likely that the use of Bininj Gun-wok as a lingua franca goes back for at least a century. Kunwinjku was chosen as the medium of evangelism by early missionaries arriving in the Oenpelli region in the 1930s precisely because it was already functioning as a lingua franca in the area:

> Nell Harris deduced that the best-known lingua franca was Gunwinggu (Kunwinjku). With the help of Arthur Capell of the University of Sydney and several Aboriginal co-translators, she translated the Gospel of Mark and the First Epistle of John during the 1930s. The Bible Society published them in 1942. (Harris 1990:839).

The widespread use of Gun-djeihmi in the Kakadu region suggests it was used as a lingua franca by Aboriginal workers in the buffalo industry, but I lack historical evidence for this. Berndt and Berndt (1970b) mention the widespread knowledge and use of Kunwinjku on Goulburn Island alongside the indigenous language there, Maung. As a final example, Elwell (1982) mentions the use of Kunwinjku (presumably in some eastern variety) as a lingua franca between speakers of various other Aboriginal languages (e.g. Rembarrnga, Kunbarlang) at Maningrida. Overall, then, the evidence points to various post-contact factors strengthening a traditional use of Bininj Gun-wok as a lingua franca in the region.

Its rapid expansion over the past century has resulted in it being spoken in many contemporary centres which lie outside the traditional clan territories with which one or another of its dialects were associated. This applies to places such as Kunbarlanja (Oenpelli), Croker and Goulburn Islands, many outstations in Kakadu, Pine Creek, Manyallaluk (Eva Valley) and Barunga. New communalects have formed at such centres as Oenpelli and Manyallaluk, incorporating some words from other Aboriginal languages into the dominant Bininj Gun-wok dialects used there. In §1.2.3 I discuss the status of Manyallaluk Mayali as a koineised modern variety, combining features of several dialects as well as influence from neighbouring languages like Dalabon and Rembarrnga.

As a result of these developments, many individuals for whom Bininj Gun-wok is their mother tongue, or at least the dominant Aboriginal language which they speak, belong to clans that traditionally spoke another language, often now extinct. In the Kakadu area Mayali is spoken by members of the Murumburr and Wirlirrgu clans, for which the traditional language was Umbugarla or Ngumbur. In Oenpelli, Kunwinjku is spoken by members of a variety of clans, for which the traditional languages included Mengerrdji, Erre, Urningangk and Gaagudju. In such outstations as Ngankorlord and Korlobidahdah south of Maningrida, Kune is spoken by members of the Kardbam and other clans, whose traditional language was Dalabon. Many of my main informants belong to one or another of the categories above.

1.2.2 Contemporary dialect situation

The traditional sociolinguistic ideology over much of Australia and certainly throughout Arnhem Land, took the patrilineal clan with its own clan territory as the basic social/geographical category and associated each clan with a distinctive linguistic variety (occasionally with two), so that one could talk about the Badmardi clan, for example, as a Gun-djeihmi speaking clan. On this traditional model, there was a direct relationship between 'language' and 'country' (see Merlan 1982b), with speakers from a particular clan 'owning' particular language varieties that belonged with their clan estates. Normatively they would speak these varieties as well as 'owning' them, but accidents of life-history, as well as the expansion of some languages and contraction or death of others, could lead to someone not speaking the language they 'own' and not 'owning' the language they speak. At the same time, the formation of new communalects in such places as Kunbarlanja (Oenpelli) and Manyallaluk (Eva Valley) has created new linguistic varieties that do not have a traditional affiliation with particular clan territories.

The contemporary dialect situation of Bininj Gun-wok results from the overlaying, upon a dialect chain marked by gradual linguistic changes as one moves from clan to clan, of communalects developed more recently in (relatively) larger communities developed as missions (Oenpelli), government settlements (Maningrida), or smaller aggregations such as buffalo camps (in what is now the Kakadu area) or small mining communities (e.g. Eva Valley). The traditional picture, which can now be most clearly discerned only in the more traditional areas around the Liverpool River, would have been a classic example of a dialect chain, in which changes in phonology, grammar and lexicon grade from one small speech community to the next. But in the modern context speakers also recognise varieties spoken in larger communities outside the area in which the local clans traditionally spoke a variety of Bininj Gun-wok.

Depending on the level of social 'grain' that is contextually appropriate, recognition of varieties may range from very detailed distinctions of what might be called 'clan lects', based on just a couple of distinct lexical items that would be used in ritualised contexts such as first arrival on someone else's country, or addressing parts of a particular clan's landscape (see detailed discussion below), to high-level groupings that take in the whole dialect chain. In this section we survey the dialectal variety found over this chain.

The 'dialects' I will be discussing fall between these extremes and refer to groupings of lects within which (a) phonology, grammar and lexicon share significant clusterings of properties and (b) these distinctions are recognised, at least by the relevant group and its neighbours, by the use of distinct lect names. For convenience I concentrate below on six 'dialects' — Kunwinjku, Kuninjku, Gun-djeihmi, Manyallaluk Mayali, Gundedjnjenghmi and two varieties of Kune most commonly known as Kune Dulerayek and Kune Narayek. It should not be assumed, however, that these groupings have particularly definitive status; for most of them further subdivisions are possible down to the level of clan lects, while groupings of two or more of them, in opposition to one or more other lects, are also common; the two Kune varieties will serve to illustrate these points. At the same time, so many speakers mix features of more than one dialect in their speech (for examples see Texts 8 and 9) that homogenising statements about the structure of a given lect do not always correspond to the practice of speakers, although there is typically much more consensus on what speakers of a given lect 'should' say. For example, a speaker of Gun-djeihmi may start off by pointing out that in this dialect *wow* rather than *yoh* is the word for 'yes' (a statement with which any

Gun-djeihmi speaker would agree), but then blithely use only *yoh* through a whole conversation.

This section is structured as follows: §1.2.3 considers the complex problem of lect naming, including the vexed issue of naming the whole dialect chain; §1.2.4 briefly describes the speech communities, locations and salient structural features of the dialects just mentioned, concluding with a brief look at clan lects and second language varieties; §1.2.5 reexamines the data from the perspective of the dialect chain as a whole, focussing on a dozen phonological, grammatical and lexical features and how these are distributed over the dialect space; §1.2.6 examines the ramifications of these sociolinguistic distinctions for orthography.

1.2.3 Naming of varieties

Within the study area, indigenous language names hardly ever coincide with the sort of absolute, user-neutral labels that linguists, administrators and others like to have when referring to language varieties. This is a common situation in Australia (see particularly Walsh (1997) on lect naming in the Fitzmaurice River area and Miller (1972) on similar problems in the Western Desert) but one at odds with the naming practices one is forced to use in producing maps of language locations, for example. Incidentally, this contrasts with the labels for patri-clans (*kun-mokurrkurr* or *kun-nguya*) which are absolute, in the sense of having the same reference regardless of user or context. Clan names are usually kept distinct from language names, although clan names prefixed with the Class IV marker *kun-* are sometimes an alternative way of designating clan lects (§1.2.4.7).

Language names, then, should be regarded either as deictics (shifters) — whose reference depends on who uses them and in what context — or as names for isogloss boundaries, such as the use of *kayakki* and *burrkyak* to designate varieties using one or the other of these words for 'no'.

Let me illustrate this first with a local-level and then with a higher-level term.

The terms *kun-rayek* 'hard (language)' and *kun-kerlk* 'soft (language)' are widely used as lect names in the eastern dialect area; the Class IV prefix *kun-* (spelt *gun-* in some orthographies) is appropriate for languages, clans and countries, among other things. Yet the reference of these terms depends on who uses them. Basically people regard their own varieties as 'hard' or 'strong' and other varieties as 'soft' or 'weak'; the roots will also combine with different prefixes (predominantly masculine *na-* or neuter *kun-*) or roots (e.g. *dule-* 'language'), depending on who is speaking. For example, Kune speakers at Korlobidahdah refer to their own variety as *Kune* or *Kune Narayek* (hard/strong Kune) and contrast this with *Kune Nakerlk* (soft Kune) spoken to the north-east around Bolkdjam and Buluhkaduru. But the Kune speakers at Bolkdjam and Buluhkaduru characterise their own variety of Kune as *Dulerayek* [language-hard], applying the term *Dulekerlk* to other varieties. More generally, speakers of a range of eastern varieties use *kun-kerlk* to refer to western varieties such as that spoken at Kunbarlanja. In this case I will take advantage of the fact that the Bolkdjam and Buluhkaduru speakers compound *rayek* with the root *dule*[5] and refer

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5   The use of the root *dule* to mean 'language' is an eastern peculiarity; in other dialects it is limited to the meaning 'song, ceremony'.

to their dialect as Kune Dulerayek, as opposed to Kune Narayek, spoken by people around Korlobidahdah and adopt these as 'absolute' names for these two dialects.

The term Mayali, which I have used in previous publications to refer to the whole dialect chain, has a range of levels of use. This has been pointed out by a number of investigators; Kesteven (1984:58–59), for example, observes that:

> [Mayali] is used as a language label, although the exact reference it has depends on the context: sometimes it refers to all 'Kunwinjku' dialects, sometimes it refers to Kundjeyhmi speakers (usually by a speaker of 'proper' Kunwinjku) and sometimes to those who speak the Beswick variety of Kunwinjku.

The original meaning of this root is 'thought', 'mind' or 'idea'. An example of its use meaning 'mind' is on page 35 of the Berndt's (1951a) 'Oenpelli Monologue' (retranscribed here into Kunwinjku orthography) *kabenedjalhdjare bu mayali kadberre, dja kunwok yarrka, kun-kurrng, dja kun-debi, kun-mud rowk kadberre kabenehbekkan rok kadberre.* The Berndts translate this as 'they just want to find out our thoughts [i.e. *kun-mayali* (NE)] and the different features of our language [i.e. *kun-wok*], our "cousin" language [*kun-kurrng*], our relationship terms [*kun-debi*], our phratries [*kun-mud*] and so on.' Note that in various Yolngu languages to the east the word *mayali'* means 'meaning, sense', especially 'inner meaning'. In Kuninjku the derived verb *mayali-bayhke* means 'enlighten'. It is easy to see how in contexts like 'they understand our meaning' or 'they follow our meaning' *mayali* could be given the secondary interpretation 'language'.

For many speakers, particularly those to the south and west, Mayali is an acceptable term for the whole dialect chain. A typical statement (in this case made by an Oenpelli man) is that made to Ken Hale in 1959 (Hale 1959:171) by Mr Frank Francis: '*Gun-winjgu, gun-dangyohmi, gun-dangburddjin.gaberrk, gun-djeihmi, gun-djawonj, gun-dangbon (ngalkbon), gun-marung* — all these learn Mayali'. This statement includes, as Mayali speakers, both people whose native tongue is one or another variety in the dialect chain and people who have learnt it in addition to another language appropriate to their 'own' language. Some of these latter, such as Jawoyn and Gun-dangbon (Dalabon), are relatively closely related languages belonging to the same Gunwinyguan family (§1.4). Others, such as Maung (which is a member of the Iwaidjan group), are only distantly related, although extensive contact has left them with many loanwords from the Kunwinjku dialect. This use of Mayali to cover the whole dialect chain is found in many places (e.g. Garde (1996:90) reports Kuninjku speakers as saying *yoh, Mayali ngarriwokdi rowk* 'yes, we all speak Mayali', even though they refer to their own variety as Kuninjku).

A more restrictive use of the term 'Mayali' opposes it to Kunwinjku and the eastern dialects. On this use of the term, speakers of certain dialects — including Gun-djeihmi, but also other varieties spoken in communities in Manyallaluk, Pine Creek, Barunga etc. that could not be identified as Gun-djeihmi — speak 'Mayali', which is categorised as significantly different from Kunwinjku. Linguistically, this aligns with certain key isoglosses, discussed in more detail in §1.2.4; note that the difference between *g* and *k* is merely orthographic, a topic we return to below. On occasion I will refer to this grouping as 'the Mayali dialects'.

Table 1.1: Main isoglosses distinguishing Mayali from Kunwinjku (see also Table 1.3)

Linguistic category	'Mayali' form	Kunwinjku form
Third person minimal, past pronominal prefix	*ba-*	*ø-*
Third person unit augmented	*gabani-*	*kabene-*
Third person augmented	*gabarri-*	*kabirri-*
Vegetable/Class III prefix	*(ng)an-*	*man-*
'yes'	*wow, woh*	*yoh*
'no'	*gayakki*	*burrkyak*

Contemporarily, this opposition coincides with a major cultural division between, on the one hand, those residing in the Kakadu area and further south in places like Pine Creek and Eva Valley and on the other hand those living at Kunbarlanja and the many outstations scattered along the northern edge of the Arnhem Land escarpment almost to Maningrida. Speakers of 'Mayali' in this second, more restrictive sense, contrast themselves socially with Kunwinjku, who are sometimes characterised as 'mission people' or 'Christian people', in opposition to the Mayali who stress their long involvement with the buffalo and mining industries and the hard-working, hard-living lifestyle associated with it. Seen from the other side, this association of the language label 'Mayali' with particular groups has led to discomfort, by speakers resident at Kunbarlanja, with the use of the term 'Mayali' to denote the whole dialect chain.

Even within the more narrowly circumscribed area delimited by the isoglosses mentioned above, variations in the use of the term 'Mayali' occur. The late Nipper Kapirrigi, asked about difference between Gun-djeihmi and Mayali, said 'Gun-djeihmi — that's the proper Mayali now'. Interestingly, his traditional clan territory, the Badmardi lands around Gorlonjdjorr (Deaf Adder Creek), is one of the few places where a variety of Mayali, in the narrower sense, is both 'owned' and 'spoken' and it is significant that this variety can be known either by a term prefixed by neuter *gun-/kun-* (i.e. Gun-djeihmi), or by the term Mayali. Varieties of Mayali spoken further to the south (Pine Creek or Eva Valley), in the territories of clans that traditionally spoke other languages, do not have names using this prefix, so that for them Mayali is the only available designator.

At this stage it is worth commenting briefly on the formation of other lect names. The commonest method is to prefix *kun-/gun-* to a distinctive root. This may be based on:

(a) GEOGRAPHICAL TERMS The term Kunwinjku is based on the root *winjku* 'freshwater', as in *Kun-bo-winjku* 'freshwater country' and evokes the opposition between dwellers in 'saltwater' clan countries to the north (e.g. Maung, Iwaidja) and the 'freshwater' or inland-dwelling Kunwinjku.

(b) MANNER OF SPEAKING We have already discussed the widespread use of *rayek* 'hard' and *kerlk* 'soft', which may be either compounded with a root meaning 'language' (as in the E:D opposition *dulerayek* 'hard language, Bolkdjam Kune' vs *dulekerlk* 'soft language, prototypically Kunbarlanja Kunwinjku'), prefixed directly with *kun-* (*kun-rayek* vs *kun-kerlk*), or prefixed with masculine *na-* and used to modify a language name (e.g. *Kune Narayek*).

(c) COMMONLY USED WORDS Sometimes the word is just used on its own with a pronoun, e.g. where *bedda burrkyak* 'they *burrkyak*' or *ngad kayakki* 'we *kayakki*' are the words for 'no' in the respective dialects. It is likely that *kune* is an example of this, based on a distinctive demonstrative term. At other times it is compounded with other roots, as in *kun-dangyohmi*, a term used for Kunbarlanja speakers and apparently based on *dang* 'mouth' (often used with the further sense 'language'), *yoh* 'yes' and *mi*, here functioning as a delocutive; Manyallaluk Mayali speakers also use a related form as a verb (e.g. *gabarridangyohme* 'they (who) speak Kunwinjku').

Likewise *Gun-dedjnjenghmi* is based on the stereotype that speakers of this variety preface requests with the particle *dedjnjengh* (see 6.102).

As a further example, the dialect name Kurruh,[6] used by Kuninjku speakers for Kune, is based on the interjection *kurruh!* (roughly 'go on!') in that dialect, as in *Kurruh kan-dadjung!* 'Hey! Give it to me!'; the corresponding delocutive verb is *kurruhme* (see Garde 1996:89 for further details).

(d) A number remain unexplained, such as *Gun-djeihmi* (which looks like it's based on a delocutive verb *djeihme* 'go *djeih*!', but such a verb is currently unattested, though note the interjection *djehdje* which can precede requests in Manyallaluk Mayali, along the lines of the *dedjnjengh* example discussed in (c) above), *Kun-dangburddjinkaberrk* for the Kunbarlanja variety and *Buboyen* and *Berreboyen*, used by Kune speakers to refer respectively to their own 'hard' dialects and the 'soft' dialects to the west.

The widespread use of the Class IV prefix extends to named registers as well, such as *Kun-kurrng* or *Kun-balak* 'mother-in-law register' (see §1.5.1) and *Kun-debi* 'special trirelational kin vocabulary' (§1.5.2), as well as to clan lects such as *Kun-walidjaw* (see below). Some names for neighbouring languages are also prefixed with *kun-/gun-*. Thus Maung is known as *Kun-marung* by Kunwinjku speakers, Jawoyn as *Gun-djawonj* by Gundjeihmi speakers and Dalabon as *Kun-dangbon* by Kune speakers (note that in the last case the Dalabon root *dala-* 'mouth' is replaced by the Kune root *dang*, also 'mouth', while *bon* is the verb 'go' in that language). Such prefixation does not occur with all language names: Iwaidja is always *Yibadja*, never *Kun-yibadja* and Amurdak is *Ngamurdak*, never *Gun-ngamurdak*.

To close this section, let us return to the problem of how to designate the entire dialect chain. The problem is that although various groups have ways of using a broad-reference term to refer to the whole chain, these are based on the names for their own variety: Mayali speakers at Pine Creek or Manyallaluk, for example, will happily use the term 'Mayali' to denote the whole dialect chain (a usage employed by the present author in various publications), while Kunwinjku speakers at Kunbarlanja will likewise happily use the term 'Kunwinjku' to denote the whole chain. Adopting either term as the term for the whole dialect chain does not always find favour with speakers of the other dialects.

As a result, in this grammar I adopt a more recent suggestion, using the term *Bininj Gun-wok*, literally '*Bininj*'s language'.[7] *Bininj* can refer, at various levels of generality, to (a)

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6   This name has been written variously as Gurra (Kyle-Little 1957:214), Guru (Altman 1987:15) and Kuru (Taylor 1987:70).

7   This formation follows the solution adopted in north-eastern Arnhem Land for a higher-order name to cover such closely related varieties as Djambarrpuyngu, Gupapuyngu, Djapu; the term Yolngu Matha was coined in the 1970s, comprising Yolngu (corresponding in its semantic range to Bininj) and Matha 'language'.

people from the areas where Bininj Gun-wok is spoken, as opposed to other Aboriginal people, (b) Aboriginal people, as opposed to others such as *balanda* (whites/Europeans), and (c) humans as opposed to other beings such as *mimih* spirits; it is of course the first sense of *bininj* that is intended here.

Because of the adoption of different orthographies by different speaker groups, it is not possible to have a completely neutral spelling of the term, which will be Bininj Gun-wok in the Gun-djeihmi orthography, Bininj Kun-wok in the Kunwinjku orthography and Bininy Gun-wok in the Mayali orthography used in the Katherine region. I arbitrarily adopt the spelling Bininj Gun-wok here.

1.2.4 Six dialects: a brief portrait

Kunwinjku, Gun-djeihmi and the two Kune varieties represent the extreme poles of structural variation across the dialect chain. We therefore begin with these varieties, before passing to Kuninjku, Gun-dedjnjenghmi and Manyallaluk Mayali. After that we briefly consider the existence of more specific clan lects and comment briefly on some features of second-language varieties.

1.2.4.1 Kunwinjku

This is the variety spoken in the largest population centre, Kunbarlanja (formerly Oenpelli). This currently has a population of around 700, almost all of whom speak Kunwinjku. Increasing knowledge of English has not stopped it from being the first language of children, although there is concern in the community that mastery of special registers like the avoidance register Kun-kurrng and the trirelational kinship system Kun-debi (§1.5) is declining.

With a tradition of literacy and bible translation going back to the 1930s and grammars produced since the 1960s (§1.6), Kunwinjku is the best-documented variety. Since 1992 an excellent translation of parts of the Bible (Genesis, Exodus, Ruth, Luke, John, Acts and Ephesians) has also been available, leading to the elaboration of a new ecclesiastical register. As a result of the relatively early availability of these materials Kunwinjku is often referred to in the general typological literature, usually employing examples from Oates' or Carroll's grammars (e.g. Mithun 1986).

In many grammatical domains Kunwinjku represents the most elaborated variety and the convenient point of departure for contrastive study of dialect differences. In view of the fact that the mission brought together speakers of so many languages, for whom Kunwinjku was originally a second, third or later language, it is remarkable how little levelling of grammatical categories appears to have taken place in Kunwinjku, when one compares it with other dialects. In the system of transitive pronominal prefixes to the verb, for example (§10.2), only this dialect maintains three values for number of both subject and object. And only Kunwinjku retains four genders, the other dialects having reduced this number. On the other hand, in the domain of case marking the southern and eastern dialects have a more elaborated set of distinctions (for example a distinct marker for 'time (when)' and ergative NP-marking, albeit optional). Here it is likely that the less overt marking of case relations

found in Kunwinjku results from the influence of Iwaidjan languages (especially Iwaidja and Maung) which lack case marking.

1.2.4.2 Gun-djeihmi

This variety is spoken by between 50 and 100 people predominantly living in the Kakadu region in such communities as Patonga Airstrip, Nourlangie Camp (*An-larrh*), Spring Peak (*Ngurrkdu*) and Deaf Adder Gorge (*Korlonjdjorr*), as well as the township of Jabiru. Although the language is still in regular daily use, there is a tendency for children to shift to English at the expense of Gun-djeihmi.

Examples of Gun-djeihmi texts are Texts 1, 4, 8 and 9. Since this is the dialect I have worked on longest, this grammar contains a great deal of Gun-djeihmi material throughout.

As far as one can reconstruct from the statements of older speakers, this variety was originally spoken by several clans living around the north-western edge of the Arnhem Land escarpment, such as the Badmardi and Mirarr clans and over the last century or so spread westward onto the floodplains of the Alligator River, through its use as a lingua franca in the buffalo camps, displacing the original languages of that region, such as Ngurmbur and Umbugarla. Gun-djeihmi speakers are often said to be allied with the Jawoyn, the group to their south-west and I have sometimes heard people from other areas equate Gun-djeihmi with Jawoyn. In post-contact times both groups have been involved in mining and in the buffalo industry and most recently in what are now adjoining National Parks. Although both belong to the Gunwinyguan family, these languages are not closely related, although there has been limited convergence in the gender system and in the phonology, as well as some lexical borrowing.

With speakers of the neighbouring Kunwinjku dialect, on the other hand, there are often tensions and rivalries, in part based on the very different post-contact histories of these two populations that were mentioned above. These differences are one cause of the Gun-djeihmi decision, in 1990, to adopt a different orthography for this dialect. It is also striking that Gun-djeihmi and Kunwinjku display greater differences than any other pair of adjacent dialects.

The main distinctive features of Gun-djeihmi (shared with Gundedjnjenghmi and other Mayali dialects unless otherwise mentioned) are as follows.

PHONOLOGY   The optional dropping of initial *ng* before non-back vowels in certain environments (§2.4.2). Basically this is dropped more and more frequently as one moves west, so that Kune and Kuninjku speakers always say *ngadjadj* for 'uncle', Kunwinjku speakers prescriptively say *ngadjadj* but occasionally say *adjadj* (though they will typically deny this if it is pointed out), while Gun-djeihmi speakers always say *adjadj* except in ligature with preceding words. In Gun-djeihmi loss of initial *ng* affects all grammatical prefixes and most, but not all, lexical items that begin with it in other dialects.

Loss of historical initial *ng* is a feature of the languages spoken across the floodplains to the west of the Arnhem Land escarpment, from Warray and Kungarakany in the west through Umbugarla, Amurdak and Gaagudju to Gun-djeihmi. Iwaidja and Maung have also lost *ng* initially, but other segments as well and all at a greater time depth.

Initial *n* is also dropped in some demonstratives (§7.3.1) (e.g. *namekke ~ amekke* 'that').

Another distinctive phonological feature of Gun-djeihmi is the optional lenition of *g* in the intervocalic position resulting from certain nominal prefixes (e.g. *gu-gukku ~ gu-wukku* 'in the water').

With Kunwinjku is shared the fact that some morphemes begin with an initial *y* corresponding to *r* in Kune (cf. Dj, W *kun-yid* 'fight', E *kun-rid*; Dj, W *na-yin* 'snake', E *na-rin*; Dj, W *yawoyh-* 'again', E *rawoyh-*).

MORPHOLOGY The two most salient differences are the form of the vegetable prefix and the form of third person predicate prefixes. Both these differences set the Mayali dialects — Gun-djeihmi, Gun-dedjnjenghmi and Manyallaluk Mayali — against the rest.

The vegetable prefix takes the form *(ng)an-* in Gun-djeihmi, as opposed to *man-* in Kunwinjku, Kuninjku and Kune, so that 'spear' is *(ng)an-gole* in the former and *man-kole* in the latter. Of the Mayali dialects, only in Gun-djeihmi is the *(ng)an* form found everywhere; Gun-dedjnjenghmi and Manyallaluk Mayali use the *man-* form in some demonstratives and the *(ng)an-* form elsewhere.[8]

The third person pronominal prefixes to the verb (§10.2) differ in a number of ways, the two most important being consistent *a* vocalism in the first syllable of the Mayali forms and a non-zero past minimal form (3P *ba-*, 3uaP *bani-*, 3aP *barri-*, against W, I ∅, *bene-* and *birri-* and E ∅-, *bini-* and *birri-*). Apart from the third person past form, it seems likely that the Mayali *a*-forms are original, with vowel-levelling (W, I) or vowel-harmony (E) introducing changes in the other dialects; this is supported by the presence of archaic place names with the *a*-forms in the eastern dialect area (e.g. *barri-djowkkeng* 'they crossed', a place name in the Kuninjku-speaking area, which is identical to the Mayali form but would be expressed *birri-djowkkeng* in Kuninjku).

THE PATTERN OF GENDER AGREEMENT Neuter agreement has been lost, accompanied by the extension of vegetable agreement. The resultant three-class system bears some resemblances to Jawoyn (Harvey 1998a).

THE PRONOMINAL PREFIX PARADIGM Within the divalent pronominal prefix paradigm, there is neutralisation of the augmented vs unit-augmented contrast for subjects with non-minimal objects (§10.2).

DISTINCTIVE FORMS FOR GRAMMATICAL ROOTS Gun-djeihmi has distinctive forms for grammatical roots from some closed classes, in particular the modal particles (§9.3) and the ignoratives (§7.2).

INTERJECTIONS The interjections *woh* 'yes' and *gayakki* 'no' distinguish it from Kunwinjku, which has *yoh* and *burrkyak* respectively. *Woh* is shared with the other Mayali varieties and *gayakki* with all varieties except Kunwinjku.

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[8] Within the Gunwinyguan family as a whole, *(ng)an-* is found in the western languages (Jawoyn and Warray) as well as in Mayali, while *ma(n)-* or *mu-* is found in the eastern languages (e.g. Kunbarlang, Ngandi, Ngalakan. Bininj Gun-wok, sitting in the centre geographically, is the only Gunwinyguan language to have both forms, whether across or within dialects. Outside Gunwinyguan *m*-initial forms are much commoner, but nonetheless there are some languages (e.g. Maung) that possess both *m*- and *ng*-initial forms (conditioned by the lexical root they attach to). This suggests that the alternation is a very old one, reconstructable beyond Proto Gunwinyguan and still present in Proto Gunwinyguan, with most descendant languages generalising one form or another in an areally patterned way.

OTHER LEXICAL ITEMS from the approximately 20% of vocabulary not shared with Kunwinjku. These may be different but etymologically related forms, as in Gun-djeihmi *gunak*, Kunwinjku and Kune *kun-rak* 'fire', or completely unrelated, as in Mayali *nawandak*, Kunwinjku *kedjebe* and Kuney *bekka* 'filesnake'.

1.2.4.3 *Kune Narayek and Kune Dulerayek*

These closely related varieties are spoken at the eastern edge of the dialect chain by some 150 speakers in the Cadell River region south of Maningrida, centred around the outstations of Korlobidahdah (Kune Narayek) and Bolkdjam and Buluhkaduru (Kune Dulerayek. Both speech communities are traditionally bilingual — Kune Narayek speakers with Dalabon and Kune Dulerayek speakers with Rembarrnga — though among younger speakers Kune is gaining ground at the expense of these other languages. There is no published work on these dialects, though Garde's (1997) Kuninjku dictionary includes significant lexical data from Kune. Sample texts at Appendix 1 represent both dialects: Kune Dulerayek in Text 5 and Kune Narayek in Texts 7 and 8.

Prolonged bilingualism has led to significant influence from Dalabon and Rembarrnga. Although these two languages also belong to the Gunwinyguan family, Dalabon is genetically closer to Bininj Gun-wok, while Rembarrnga belongs to the eastern Gunwinyguan group along with Ngalakan and Ngandi. However, there are significant areal similarities between Rembarrnga and Dalabon, such as the use of instrumental *-yih* as an ergative marker, the presence of a sixth vowel phoneme and the loss of noun class prefixes and associated development of a suffix *-no* (D) or *-na* (R) on part nouns and adjectives, so that in some domains the influence of these two distinct languages leads to similar outcomes. In the lexical domain, however, there are significant differences (particularly in natural-species terms), generally taking the form of Dalabon-influenced vocabulary in Kune Narayek and Rembarrnga-influenced vocabulary in Kune Dulerayek.

In what follows, statements about 'Kune' apply equally to both varieties unless otherwise specified.

PHONOLOGY Like Dalabon and Rembarrnga, Kune has a sixth high central vowel phoneme, here represented as *v*, whose phonetic realisation ranges across [ɨ], [ʉ] and [ə]. Most Kune words with this phoneme are probably loans from Dangbon or Rembarrnga (e.g. E:N *kurrbvrlah* 'bush stone curlew' (same in D) and *man-bvrlahbvrlang* 'kurrajong sp. growing in rock country' (cf. D *bvrlahbvrlang*), E:D *ngawvrrh* '*casuarina equisetifolia*'). There may also be a very marginal lamino-dental phoneme (here written provisionally as *dh*) in a number of place names (e.g. *Dhungalibbi* and *Dhaymikalkdja*).

Kune has high front vowels corresponding to mid front vowels in other dialects for a number of lexemes: *ngayi(h)* 'I' answers Dj, W *ngaye*; and present tense *nami* 'makes'[9] corresponds to *name* in other dialects.

Kune also retains postvocalic *r* in a wider range of environments than other dialects, for example after *u* and before velars (cf. E *namurng* 'snake sp.', *warkwan* 'not know', *djarng*

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[9]   The form *nami*, which represents the past imperfective in other dialects, is absent in Kune as a result of the lack of an imperfective series in eastern dialects (see 9.3.4).

'dreaming' and *burkmen* 'be dry', which in other dialects would be *namung, wakwan, djang* and *bukmen* respectively).

Along with Kuninjku it has initial *r* corresponding to some *y*-initial morphemes in other dialects (e.g. *rawoyh-* 'again' as opposed to *yawoyh-* in Dj and W, or *narin* 'snake' against *nayin* in Dj and W).

MORPHOLOGY There are a number of signficant morphological differences both in nominal and verbal morphology.

Kune has lost the original four-gender system preserved in Kunwinjku, so that it can use *namak* (the masculine prefixed form of 'good') with *bininj* 'man (masc)', *daluk* 'woman (fem)', *manme* 'vegetable food (veg)' and *kundjirla* 'axe (neut)', whereas Kunwinjku would exhibit gender agreement, giving *namak, ngalmak, manmak* and *kunmak* respectively (§5.5).

At the same time, Kune has extended the suffix *-no*, which in western dialects is basically a third person anaphoric possessive marker, to mark 'part nouns', dropping the class III or class IV prefix these take in other dialects (cf. W *kun-keb* 'nose', E *kebno*). In Kune the possessor need no longer be third person, so that *kebno ngarduk* (etymologically 'nose-his/her/its my') is acceptable for 'my nose'; this is ungrammatical in other dialects (see §5.5.2.5 for more details).

Nominal morphology found in Kune but lacking in Kunwinjku and Gun-djeihmi includes the distinctive 'time' suffix *-keno* (§5.2.1.12) (also found in Kuninjku and MM) and the directional prefix *berre-*, as in *berre-kaddum* 'upwards' (otherwise only found in MM).

Two case relations in which Kune parallels Dalabon and Rembarrnga and diverges from the other dialects (except MM) are the marking of transitive subject and locative.

The suffix *-yi(h)* occurs in other dialects, but is restricted to instrumental or proprietive function, while in Kune it also has an ergative use, optionally marking transitive subjects (§5.2.1.2). Dalabon and Rembarrnga parallel Kune exactly in having a suffix *-yih* with instrumental, proprietive and ergative function; in this case it is possible that this is an 'areal retention' rather than an innovation.

Kune also follows the Dalabon and Rembarrnga pattern in making wider use of the suffix *-kah* for marking locative roles, in circumstances where the preposition *kore* and/or the locative prefix *ku-* would be used in other dialects. A Kune Narayek example is *rolongadjek kayo kururrk kurlbbinjhkah* 'the hooded parrot lives inside termite mounds'. The noun-class prefix *kun-*, which would in other dialects be replaced by *ku-* in locative roles, may optionally be retained, with location being shown by the suffix *-kah* (e.g. Kune *kunronjkah* 'in the water' as an alternative to *kuronj*, which is an alternative in Kune but the only form usual in Kuninjku). Note that a suffix *-ka(h)* is indeed found in other dialects, but is semantically more specialised. In Gun-djeihmi, for example, it mainly marks goal, cause and direction arguments (§5.2.1.4); again this suggests that Kune, Rembarrnga and Dalabon here have an areal retention.

A number of pronominal verb prefixes have different forms in Kune (§10.2); most importantly, the third person unit augmented base is *bini* against W *bene* and Dj *bani* and the third person augmented object is *bin* against W *ben* and Dj *ban*. In addition, Kune object pronominal prefixes do not distinguish a unit-augmented form. Kune Narayek lacks the directional prefix *m-* 'towards' and both Kune subdialects lack the prefix *bal-* 'away, along' found in the western dialects (§11.2) (cf. Dj, W *kanjok, yimray ngarrwokdi* 'brother-in-law, come and we two will talk' with E:N *kanjok, yiray ngarrwokdi*).

Kune also lacks the 'immediate' use of the glottal prefix in verbs that is found in Kunwinjku and Gun-djeihmi (§11.4.3). In this case its absence contrasts rather than convergences with Dalabon, which normally terminates all pronominal prefixes with the glottal stop (cf. W, Dj, which contrast *nga-ngun* 'I eat' with *nga-h-ngun* 'I am eating now', D *ngah-ngun* 'I eat, am eating' and E:N *nga-ngun* 'I eat; I am eating').

Many other features of verbal morphology distinguish Kune from the western dialects, but are shared to an extent with Kuninjku: the comitative applicative is *re(y)-* rather than *yi-* (§10.3.2) and there is no past imperfective series (§9.3.4.1). A number of incorporated nominal roots also differ in form: E *kolk-* 'liquid', *bo-* in the western dialects; *ko-* 'flower' (vs *nguy-*); and *mo* 'bone' (vs *murrng-*). There is also a different pattern of iterative reduplication: the iterative form of *re* 'goes' is *rere* in Kune as opposed to *rengere* in western dialects (§9.4.2).

Kune has a distinctive verbal enclitic *=bonh*, whose function corresponds to the particle *wanjh* (roughly 'now') in other dialects (as in Dj, W *yire wanjh* vs E:N *yire=bonh* 'you go now; it's time for you to go'. The form *bonh* is also found in Rembarrnga.

PRONOUNS   Kune has the form *ngungke* 'your', as opposed to W, Dj *nguddangki*; in addition 'I' is *ngayi(h)* compared to W, Dj *ngaye*.

Kune Narayek has extended the form *nuye*, which means 'his, its' in other dialects in contrast to *(ngaleng) ngarre* 'hers', to the point where it is a general third person possessive marker, irrespective of gender. An example illustrating this is E:N *bininj nuye daluk nuye* 'husband and wife' (lit. 'his/her man, his/her wife'), in W and Dj *bininj ngarre daluk nuye*. This neutralisation of gender in third person possessives may also reflect Dalabon influence, since the third person possessive suffix *-no* in Dalabon does not specify gender: *bi-no kvrdvkvrd-no* 'husband and wife'.

INTERJECTIONS   A number of interjections are characteristic of Kune. Most commonly remarked upon is the use of *bih*, often added after requests and *manj* is used instead of the common interjection *mah* 'time to act'.

SEMANTIC AND LEXICAL DIFFERENCES   Among the hundreds of these, particularly worth noting are the distinctive verb lexemes *dadjung* for 'give' (elsewhere *won*), *rakburren* for 'go, head off' (elsewhere *re*) and *nabadjan* for 'big' (which elsewhere is *nakimuk*; *-badjan* has become semantically specialised in other dialects as a reference term for 'mother'). Some salient semantic differences are the use of *kukno*, literally 'his/her body', in the phrase *kukno doweng* 'died'; *ngokkowino* to mean 'nighttime' (*ngokkowi* means 'afternoon' in Dj and 'dusk, evening' in I); *darrkidno* to mean 'body' (in other dialects it means 'alive' but also 'physically present'); *mankole* to mean 'acacia conspersa' ('bamboo spear-shaft; bamboo' in other dialects) and *djolengno* to mean 'cycad damper' (in ED) — in other dialects the root *djoleng* means, more generally, 'ripe' or 'cooked'.

1.2.4.4 Kuninjku

This is spoken by two to three hundred speakers in the Mann and Liverpool Rivers areas, most of whom live relatively traditional lives on small outstations (such as Marrkolidjban, Mumeka and Yikarrakkal) 20–50 km inland in the area between Oenpelli and Maningrida. Some older speakers say this used to be a Dalabon-speaking area, but unlike the situation

with Kune Narayek, this is not a bilingual speech community, even among older speakers. The form of the language name, Kuninjku rather than Kunwinjku, reflects a characteristic elimination of *w* after prefixal nasals (§3.2.2). Until recently very little was known about this dialect but this situation is beginning to be remedied through Garde's detailed work (see §1.6). A sample Kuninjku text is Text 6.

To a greater extent than anywhere else in the dialect chain, Kuninjku tend to be monolinguals and there are large numbers of both the old and the young who know practically no English, nor other Aboriginal languages; those between 15 and 45 know more English and sometimes some Burarra. The high proportion of monolinguals is striking in an area as traditionally multilingual as central Arnhem Land (see Elwell 1982) and is presumably due to the combination of the fact that Kuninjku is so widely known that it can be used with members of most other language groups in the area, plus the tendency of most Kuninjku speakers to live traditional lives in their own country rather than moving to larger settlements like Maningrida and Oenpelli, where they would have more contact with speakers of other Aboriginal languages and of English. On the other hand, the very traditional setting means that special registers are continuing to be passed on.

As befits its geographic position between Kunwinjku and Kune, Kuninjku is very much a transitional dialect; what distinguishes it from these other dialects is more the mixture of features from both, rather than traits not found elsewhere. Typical in this regard is the system of divalent pronominal prefixes, which has the same semantic structure as the Kune system (i.e. neutralising the augmented vs unit augmented contrast in both subject and object), but the same forms as the Kunwinjku system (i.e. 3ua *kabene-* rather than *kabini*, as in Kune and 3/3pl *ben-* rather than the *bin-* found in Kune). Another neutralisation shared with Kune is the loss of distinct past imperfective forms (§9.3.4).

The extension of suffixation for possessed parts at the expense of Class III or IV prefixes, so characteristic of Kune, is also found in Kuninjku, but coexists alongside the class-prefixed forms, so that 'eye' can be either *kun-mim* or *mimno* and 'seed' either *man-mim* or *mimno*. Unlike in Kune, the *-no* suffix has not been leached of its person value in Kuninjku, so that while *mimno* can mean 'his/her eye', to say 'my eye' one has to say *kunmim ngarduk* in Kuninjku whereas Kune speakers can say *mimno ngarduk*. Kuninjku has largely lost neuter agreement, which is still retained to some extent in Kunwinjku, but unlike Kune still has agreement for the other three genders, albeit not consistently observed.

One distinct form found only in Kuninjku is the 'hither' form of the third person minimal past. The hither prefix *-m-*, one of only two codal prefixes to the verb, poses syllabification problems when it follows the zero third person minimal prefix and Kunwinjku and Kuninjku have adopted different solutions: Kunwinjku uses a special form *ku-* just here, giving *kum-*, whereas Kuninjku extends the non-past prefix *ka-* into past use just in this environment, giving *kam-* (§10.2.4).

1.2.4.5 *Gundedjnjengbmi*

This dialect, very similar to Gun-djeihmi, is spoken by a small number of speakers — at most a dozen — with traditional clan territories south-east from Oenpelli (Djordi, Djorrolam and Madjarlun clans) and often said to have traditional alliances to Dalabon people. It is not known whether this dialect is being passed on to children. Joy Kinslow Harris (1969a) includes some material from this dialect, transcribed as Gun-deʔynekmi, in her typological

survey of Western Arnhem Land languages. Text 2 is a version of the emu story in this dialect told by Jimmy Kalarriya, who was one of my two main sources for this dialect, the other being Lofty Bardayal Nadjimerek. The paucity of speakers means that we have less information for this dialect than for the others.

In most respects this dialect is identical to Gun-djeihmi, using *ba-* as the third person past form, *bani-* and *barri-* for the respective unit augmented and augmented third person forms and *ngan-* rather than *man-* for the vegetable class (except that some demonstratives use the *man-* prefix in the vegetable class — §7.3.1).

The one distinctive morpheme so far discovered in this dialect is the first person inclusive augmented prefix, which is *yirri-* as opposed to *garri-/karri-* in the other dialects (e.g. *yirriyoy* 'we (inclusive, augmented) slept', which would be *karriyoy* in Kunwinjku).

1.2.4.6 *Manyallaluk Mayali*

I use this variety to illustrate more general properties of the Mayali used from Barunga to Pine Creek; it is not yet clear how far the details are equivalent in all these areas. Perhaps a hundred speakers use these varieties as a first or second language; children are mostly not learning Mayali in these areas, where Kriol is expanding rapidly. As at Kunbarlanja, these areas all lie outside the area in which Bininj Gun-wok was traditionally spoken.

In the case of Manyallaluk Mayali, which is spoken in Jawoyn country, the language variety appears to be a koiné (or dialect blend), the development of which can be dated to the period following the establishment of mining and market gardens in Eva Valley around 1916, where speakers of various dialects of Bininj Gun-wok, as well as Jawoyn, Rembarrnga and Dalabon, found employment. A distinct community emerged, with its own language variety based on Mayali as lingua franca, but incorporating local features from particular dialects and other languages spoken in the area.

Structurally, this koiné clearly results from the blending of features of the westernmost (Gun-djeihmi) and easternmost (Kune) dialects, with the incorporation of some words from Rembarrnga, Dalabon and Jawoyn and some structural features of Dalabon. Note that this at least sometimes reflects previous rather than present multilingualism; all the Dalabon features given below, for example, occur in the speech of individuals (such as Mary-Anne Kalamuka) who do not speak Dalabon. However, there has not yet been systematic research relating variation in the use of the Manyallaluk Mayali koine to the other languages used by members of the speech community.

Like Gun-djeihmi and Gun-dedjnjenghmi, Manyallaluk Mayali uses *ba-* for third person minimal subjects in the past tense (e.g. *bawam* '(s)he went' vs Kune/Kunwinku *wam*). It also uses *ngan-* as the vegetable-class prefix (vs Kunwinjku and Kuney *man-*). The demonstrative series, however, mixes both prefixes: *manih* 'this' but *nganekge* 'like that'. Since this mixture is also found in Gundedjnjenghmi it is unclear if this results from koineisation in situ or was directly inherited from Gundedjnjenghmi. Also like Gun-djeihmi, initial *ng* can be dropped in certain environments, though the prosodic conditions differ somewhat (§2.4.2).

Kune-like features, on the other hand, include:

- the lack of the 'towards' prefix *m-*, so that whereas Gun-djeihmi and Kunwinjku oppose *yimray!* 'come' to *yiray!* 'go!', Manyallaluk Mayali speakers (like Kune speakers) use *yiray!* to mean both 'come!' and 'go!',

- the use of instrumental -*yih* as an ergative,
- the extension of -*no* to part nouns,
- a number of distinct lexical items not found in other dialects, such as *wendi* 'be up high' (alongside *barndi*, the form found in other dialects) and *dadjung* 'give' (o.d. *won*),
- no use of the immediate prefix *h*- in perception complements,
- forms of many incorporated nouns, such as *kolh* (alongside o.d. *bo*) for 'water' and *ko* (o.d. *nguy*) for 'flower'.

Some features of Manyallaluk Mayali, however, must be attributed not to other dialects of Bininj Gun-wok, but to other Gunwinyguan languages: Dalabon, Rembarrnga and Jawoyn in order of importance.

Dalabon influence, already strong in Kune as we have seen, has induced even further changes in Manyallaluk Mayali. Grammatically, two striking patterns are the high frequency of the suffix sequences -*no-gah* [-3POSSD-LOC] and -*no-yih* [-3POSSD-INSTR] (e.g. *galknogah* 'on the tree stump') — both used in an identical way in Dalabon — and the pronoun plus sequential contractions *galng*- < *ga-weleng* [3-then] and *balng* < *ba-weleng* [3P-then]. Dalabon has an identical form *kalng* < *kah-yeleng*-, but lacks a *ba*- prefix which would generate the *balng*- form, so that it seems that *galng*- is a direct borrowing from Dalabon, which has then been analogically generalised to the past form *balng*. Additional contracted forms, again lacking in Dalabon, are *bandileng*- < *bandi-weleng*- [3a/3plP-then-] and *bandijaleng* < *bandi-jal-weleng*- [3a/3plP-just-then-]'. There are a number of Dalabon loanwords, such as *korrehken* (D *korrhkvn*) for '(long) before', against *gorrogo* in other dialects.

Perhaps most striking is the sociolinguistic difference from all other dialects in the conditions on the use of the *kunkurrng* avoidance register (§15.2). In other dialects this is used **in the presence of** one's mother-in-law and other high-respect relatives, whereas in neighbouring Dalabon there is a similar register, but the conditions on its use are different: it is used to talk **concerning** such relatives, rather than **to** them. Now the avoidance variety of Manyallaluk Mayali has the same vocabulary as the other dialects (as far as attested so far), but it is used under Dalabon-style conditions; that is, the crucial contextual determinant of when to use it is that one is talking about one's *na-/ngal-kurrng*, rather than, as in the other dialects, in his/her presence.

As far as is currently known, the influence of Rembarrnga and Jawoyn is confined to the lexicon. 'Dog', for example (*duruk* in all other dialects), is *djamo* in Manyallaluk Mayali, identical to the Rembarrnga form.[10]

An interesting lexical sharing with Jawoyn and Dalabon involves the calquing of a particular idiom by which women refer to their birth place (where their afterbirth is buried) by the expression 'my digging stick' and men by the expression 'my woomera'. This is not found in other dialects of Bininj Gun-wok, but is employed in Manyallaluk Mayali using the expressions *kundjadj ngarduk* and *borndok ngarduk* respectively.

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10 Harris (1969a) cites examples in which *djamo* is the Dedjnjengmi (De?ynekmi in her orthography) word for 'dog'. This needs checking with present-day speakers, since it suggests it may be a Dedjnjenghmi rather than a R loan.

Within the kinship system, an important difference between Manyallaluk Mayali and other dialects is the semantics of its grandparent terms: it has generalised a single term (*gakgak*) to cover all parallel grandparents and has extended another (*mamamh*) to all cross-grandparents except father's mother (§1.4.1.1). The resultant system is peculiar to Manyallaluk Mayali and does not exactly match that found in any other dialect, nor in the three other languages considered above.

1.2.4.7 Clan lects

The dialect differences described above do not exhaust the geographically conditioned variation. At the limiting case, it seems likely that traditionally every clan had minor but distinctive differences in language variety. These can no longer be identified with accuracy in certain regions, such as Oenpelli and the Kakadu Region, where more homogenised koiné forms have emerged over the last fifty years or so, combined with the fact that these varieties are to a large extent spoken outside their traditional country. However, the evidence from more traditional clans further east, particularly in the Kuninjku-speaking area, is almost certainly characteristic of the whole region in precontact times, as it is in certain other parts of Australia (e.g. eastern Arnhem Land and western Cape York — see Smith & Johnson 1986). All examples found so far have been confined to lexical differences. However, we still know very little about these clan lects (Murray Garde is currently gathering further material) so any statements must be provisional at this stage.

The ideology that every clan should have at least some identifiable differences in its language variety is reflected in the occasional practice of referring to language varieties using the clan root, as in *ngad ngarri-djalama, kun-djalama ngarri-wokdi* 'we Djalama people, we speak *kun-djalama* ' (GID).

It is also linked with assertions that particular clans and words they use, are aligned with the patrimoiety division into Yirridjdja and Duwa (§1.4.2.1). The existence of distinct moiety lects is at its most formalised in eastern Arnhem Land, where the application of regular phonological rules, including final-vowel deletion, gives Yirridjdja and Duwa dialects quite different phonotactics (Morphy 1977; Wilkinson 1991). But the distinction has been spreading westwards into the adjoining Gunwinyguan languages, so that both Rembarrnga and Dalabon speakers say there are two varieties of their language, one corresponding to each moiety, even though they can cite few actual differences.[11] Some of the words showing clan-based variation in the Kuninjku area are identified as being Duwa or Yirridjdja, as in *burda*, said to be the Duwa lect name for *man-djay* 'cane grass'; *birdidjirr*, said to be the Duwa lect name for *man-bolobbi* and *man-djandjadj*, said to be the Yirridjdja name for *djendek* or *marrabbi* (Sand Palm). It is often unclear what the nature of such claims is. Are these words that can be used by any clan of the appropriate moiety, or are they clan-specific, inheriting moiety affiliations through the fact that each clan is either Duwa or Yirridjdja?

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[11]   Thus George Left-Hand of Weemol told me that in Rembarrnga, Yirridjdja speakers would say *ngamangara* for 'I get' while Duwa speakers would reduplicate this to *ngamangamangara*. Similarly, Maggie Tukumba said that the Yirridjdja variety of Dalabon is described as *Dalabonmuduk* 'slow Dalabon' and the Duwa variety as *Dalabondjurrkdjurrk* 'quick Dalabon'. At present, though, I have no evidence that normal, as opposed to self-conscious and stereotyped, speech differs along these lines.

In any case, at least in the Kuninjku-speaking area, there are groups of words said to be specifically associated with the speech of individual clans — probably at most a dozen for each clan. These always include a distinct *man*-prefixed word for 'small amount of food' and the clan lect can either be known by the corresponding *kun*- prefixed word, or by the clan name, prefixed by *kun*- (see Table 1.2).

Table 1.2: Some clan lects and associated clans

Lect name	*Kundedjwarre*	*Kunwalidjaw*	*Kundjedjenbak*
Associated clan(s)	*Kunkurulk*	*Kunkulmarru*	*Kunkardbam*
(Moiety)	*(Duwa)*	*(Duwa)*	*(?)*
'small amount of food'	*mandedjwarre*	*manwalidjaw*	*mandjedjenbak*

This same root can also be combined, according to Mick Kubarkku, with verbs, for example, instead of saying *ngayo* for 'I sleep' one can say *ngadjedjenbak ngayo* [I-djedjenbak I-sleep] and instead of *man-me kan-wo* for 'give me food', *kan-djedjenbak kan-wo* [you/me-djedjenbak you/me-give].

The lengthy nature of these locutions makes one suspect they were only employed on relatively formalised occasions, but for the moment I have no more ethnolinguistic evidence than that just given. One such formalised occasion when clan lects are appropriate is when greeting deceased ancestors at particular clan sites, especially sacred places. An example of such a greeting, using particular Kundedjwarre interjections (GID), is the following:

1.18 *Kandi-bekkan   bu   dabbarrabbolk Namarrkmokadardjarr Namayhkurdihwarr*
      2a/1-listenNP   SUB   ancestors   [interjection]   [interjection]

 Kundedjwarre-nin. Ngurri-kurrme-rr-imen kun-red   and   ngudberre
 clan.lect.name-be   2a-put-RR-IMP   IV-country   youOBL

 kun-red   kondanj ngadberre kun-red   and   ngayi boss nga-yime
 IV-country   here   1aOBL   IV-country   I   1-doNP

 ngayi kakkak nga-yime kun-red   kondanj.
 I   MM   1-doNP   IV-country here
     'Ancestors! listen to me, I greet you with the words 'Namarrkmokadardjarr
     Namayhkurdihwarr', you who were of the clan lect Kundedjwarre. Just stay
     where you are here in your place, our place, it's our country and now I'm the
     boss of this my Mother's Mother's country here.'

Other lexical items with distinct forms were 'lie, sleep', where normal *kayo* '(s)he sleeps' is replaced in Kun-walidjaw by the form *ngaworlehyo* 'drink', 'urinate', which is *dilebun* in most dialects but *bayiddjirrekorrhme* in *Kundedjwarre* and 'woomera', where normal *borndok* is replaced in Kun-walidjaw by *kardakku*.

Many of the words said to belong to specific clan lects are in fact shared with other languages or more distant dialects, for example:

- The word for the short-eared rock wallaby, known as *badbong* in most dialects, is *dorlhwarr* in Kundedjwarre, which is also the form in Dalabon.

- The word for 'male agile rock wallaby', *warradjangkal* in most dialects, is *barlkkidj* in Kundedjwarre, which is also the form in Rembarrnga.
- The word for 'red shouldered parrot', *werleyh* in most dialects, is *djadberlhberl* in Kunwalidjaw, which is also the form in Gun-djeihmi and Jawoyn.

This suggests that at least some of the clan lect differences are formed by taking over alternative forms known from distant dialects or neighbouring languages and licensing them as emblems of clan speech. Other forms, such as the 'little bit of food' examples discussed above, do not have outside cognates and appear to be specific coinages.

In the Kakadu region, the one definite example of clan differences in language varieties comes from differences between the speech of the Badmardi men like Nipper Kapirigi and George NaMingum on the one hand and of Mirarr Gun-djeihmi man Toby Gangele on the other. The Badmardi clan lect, but not the Mirarr lect, retained retroflex glides in some words (cf. 'ordinary' *gun-mim* 'eye', pronounced *gun-mirim* by Kapirigi and NaMingum); there were also some minor lexical differences. No living speakers maintain these clan lect differences.

1.2.4.8 Second-language varieties

This is a neglected topic, but one of great interest for studies of language contact, because of the likely role of second-language speakers in propagating the diffusion of language change.

Here I confine myself to a few remarks on the phonological features of the variety of Kunwinjku spoken by native speakers of such Iwaidjan languages as Iwaidja and Ilgar. These differ from the Gunwinyguan languages in lacking a glottal stop long stops and mid vowels and such L2 speakers normally simply omit the glottal stop, neutralise the long-short distinction by using phonemes from a single stop series and replace mid vowels with high vowels. For example, an Ilgar speaker who speaks fluent but heavily accented Kunwinjku pronounces *nawu kolomomo kubowinjku* 'that long-nosed crocodile (lives) in freshwater' as *nawu kulumumu kubuwinjku*; *karrikayhmen* 'we cry out' as *karrikaymin*; and *birribonguni* 'they were drinking' as *birribunguni*.

1.2.5 Some important isoglosses

To illustrate the many cross-cutting ways in which grammatical, phonological, lexical and sociolinguistic features group dialects, let us consider a dozen or so from the thousands of features which are not spread uniformly across the dialect chain. We find four basic patterns of isoglosses:[12]

(a)   Maximising, with a large number of alternatives distinguishing the varieties.

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[12]   I stress that at this stage these patterns are formulated on a purely impressionistic basis and need to be tested against a properly based dialectological study with a wider range of isoglosses and proper statistical analysis of the data. Such a study would be likely to show up other patterns, such as an east–west continuum in some phonological features (initial C-dropping and percentage of words that have lost postvocalic *r*) and a north–south continuum in others (e.g. the frequency of case suffixation).

(b)   Kunwinjku-centred, in which Kunwinjku is set off from the other dialects in all directions; within the grammar this often results from Kunwinjku maintaining contrasts that have been neutralised in the other dialects.

(c)   The Mayali bundle, grouping Gun-djeihmi, Gundedjnjenghmi and Manyallaluk Mayali against the rest, with some features shared by all these three and some found in a pure form in Gun-djeihmi and in mixed form in the other two.

(d)   The Kune bundle, either grouping the two Kune subdialects against the rest, or focussed on Kune and found in more limited form in Kuninjku and Manyallaluk Mayali.

Let us now consider some examples of each of these patterns.

MAXIMISING   This pattern is particularly common in the lexicon. Large numbers of lexical items serve as shibboleths and it is possible to justify virtually any division or alliance of lects on the basis of one lexeme or another. The distribution of such shibboleths across the vocabulary is non-random, with high vocabulary sharing for kin terms, human terms and generics, for example and high differentiation among plant and animal (specific) terms, as well as closed class lexemes like negative and apprehensive particles and demonstratives. Even within a domain like birds there is a non-random distribution of variation, with particularly high divergence for such large and commonly eaten birds as the magpie goose and the emu. Isogloss 1 in Figure 1.1 compares the distribution of terms for 'magpie goose' (MM and Dnj forms not yet known).

Isogloss 1: Words for 'magpie goose'
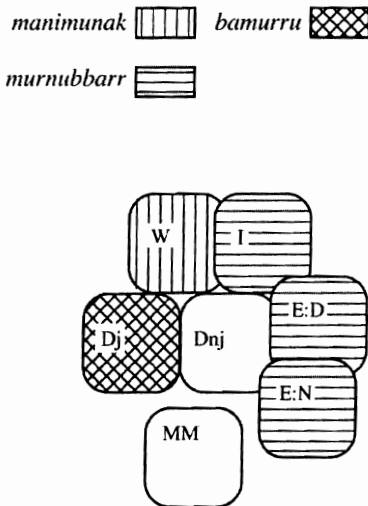
Isogloss 2: Third person minimal past 'hither' forms

manimunak   *bamurru*

murnubbarr

bam-   *kam-*

ba-   *kum-*

ø
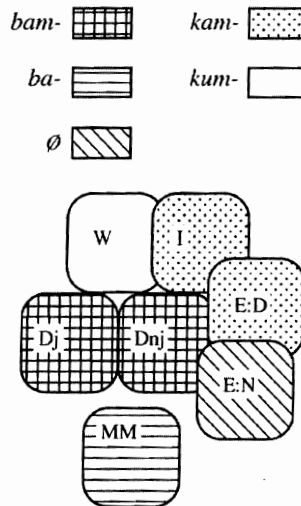
Figure 1.1: Two maximising isoglosses

Even larger sets of contrasting forms are found when one compares the prefix used for third person minimal past verbs with a 'towards' meaning (as in '(s)he came'); here the intersection of two differently patterned morpheme distributions (west to east loss of *m*, Mayali *ba-* vs zero past in other dialects and different strategies in Kunwinjku and Kuninjku for dealing with the impossibility of syllabifying the 'towards' prefix *m* after a zero prefix) gives five different forms, as shown in isogloss 2.

KUNWINJKU-CENTRED   There are many ways in which Kunwinjku is set off from all other dialects. The example most cited by speakers is the word for 'no',[13] which is *burrkyak* in Kunwinjku but *kayakki* (or its orthographic variants *gayakki* or *gayakgi*) in all other dialects. Speakers of other dialects sometimes say of Kunwinjku speakers, 'they say *burrkyak*' or 'that *burrkyak* mob' and speakers of Gun-djeihmi at one end of the dialect chain and Kune at the other say, of each other, that 'they're like us; we both say *kayakki*'. The evidence points to *burrkyak* being a Kunwinjku innovation: its confinement to one dialect, the existence of a cognate form to *kayakki* in the next closest language (Dalabon has *kahke*) and the etymology of *burrkyak* as 'lacking body', which suggests a novel emphatic form.

Isogloss 3: The form for 'no'

kayakki [:::::]   *burrkyak* [   ]
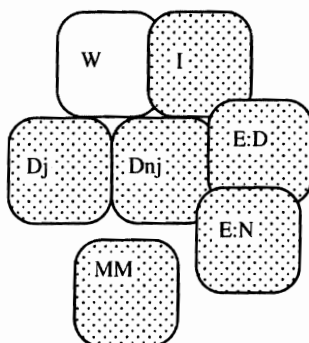
Figure 1.2: The 'no' isogloss

Turning to the grammar, it is striking that in the two most important morphological subsystems showing substantial cross-dialectal variation, namely the gender and pronominal prefix systems, there is a consistent pattern by which Kunwinjku has the full set of contrasts, partly neutralised in dialects to the east, south and west. Consider number in the divalent (subject/object) prefix system (§10.2). In the intransitive system all dialects distinguish three

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13   And throughout Australia the word for 'no' commonly forms the basis of language names: Victorian language names like Wemba-Wemba, Yota-Yota and so on are all reduplications of the word for 'no' in the relevant language. Closer to the area at hand, many language names recorded last century in the Cobourg region appear to have been based on the word for 'no', though they are no longer so known: Marrgu was recorded as Yagu and Ilgar as Yarlu (*yigarlu*).

numbers: minimal, unit augmented and augmented. But once both subject and object number are involved only Kunwinjku maintains all three values, although even Kunwinjku partially neutralises the contrast where subject and object are both third person. The Mayali dialects neutralise the two non-minimal numbers of the subject, provided that the object is non-minimal, while the eastern dialects (Kuninjku and Kune) neutralise the two non-minimal numbers for both subject and object (isogloss 4; note that our data for Gun-dedjnjenghmi is incomplete).

Isogloss 4: Neutralisations of unit augmented vs augmented in pronominal prefix system
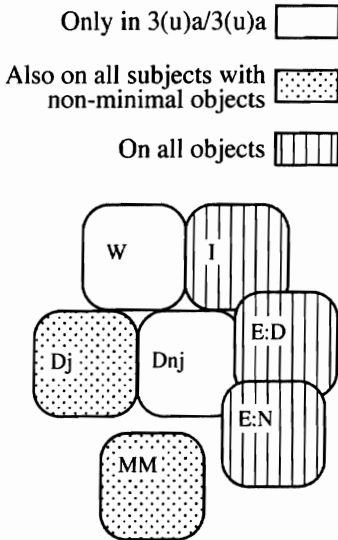
Isogloss 5: Number of genders
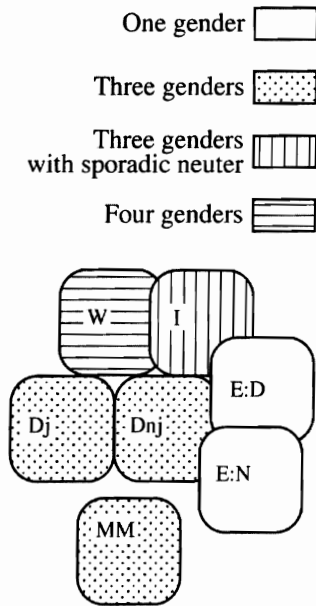
Figure 1.3: Two isoglosses showing maximum category differentiaiton in Kunwinjku

Likewise, in the area of gender agreement, only Kunwinjku maintains four classes (though it is breaking down — see §5.5). The dialects next to Kunwinjku — Gundjeihmi to the west and Kuninjku to the east — have essentially lost neuter agreement, extending vegetable agreement at its expense, though Kuninjku still has some sporadic neuter agreement. Kune has lost agreement entirely (isogloss 5).

THE MAYALI CLUSTER Many isoglosses cluster together around the Mayali dialects. A whole set of pronominal prefix forms, some intransitive and some transitive, have an identical *a-(i)* vocalism in Gun-djeihmi, Gun-dedjnjenghmi and Manyallaluk Mayali, corresponding to an *e-(e)* or *i-i* vocalism in Kunwinjku and Kuninjku and an *i-(i)* vocalism in Kune; the past forms are shown in Table 1.3 (see §10.2 for more details).

Table 1.3: Vocalism in third person prefixes across dialects

Subject(/object)	Dj, Dnj, MM	W, I	E
3ua(/3)	*bani-*	*bene-*	*bini-*
3a(/3)	*barri-*	*birri-*	*birri-*
3/3du	*banbani-*	*benbene-*	*bindi-*
3/3pl	*ban-*	*ben-*	*bin-*
3a/3pl	*bandi-*	*bindi-*	*bindi-*

Equally salient is the form of the vegetable gender prefix and corresponding class III prefix, which in the Mayali dialects is *ngan-* (optionally dropping the *ng* to become *an-*), as opposed to *man-* in the other dialects. In Gun-djeihmi this is the only form found, whereas in Gundedjnjenghmi and Manyallaluk Mayali two of the demonstratives have *man-* rather than *ngan-* for their vegetable form (Isogloss 6).

Isogloss 6: Form of the vegetable/class III marker

(ng)an- [shaded]   *man-* [empty]

(ng)an- with *man-*
on some demonstratives [hatched]
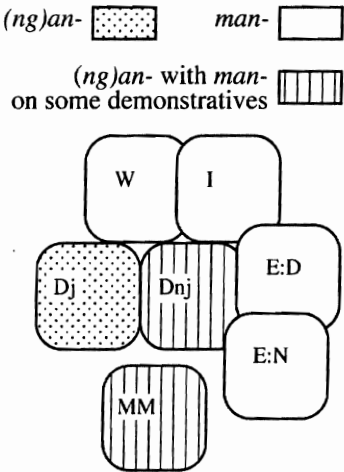
Figure 1.4: Form of the vegetable prefix

An interjection commonly cited by speakers as associated with all three Mayali dialects is *woh* for yes, as opposed to *yoh* in the remaining dialects, although this is prescriptive rather than actual and many Gun-djeihmi speakers, for example, use *yoh* at least as often in their unmonitored speech.

THE KUNE CLUSTER As many isoglosses define the Kune dialects, in opposition to the rest, as characterise the Mayali cluster. Two clear examples from the realm of morphology are use of *re-* rather than *yi-* as the comitative applicative (isogloss 7) and the distinctive form of iterative reduplication of inflected monosyllables with a monosyllabic reduplicate (e.g. *ru-ruy* 'burned and burned') instead of the disyllabic reduplicate (*rungu-ruy*) found elsewhere (isogloss 8).

Isogloss 7: *yi-* vs *re(y)-* comitative

Isogloss 8: Iterative on monosyllabels
in CVNV- (*runguruy*) vs CV- (*ruruy*)

Dialects with
comitative in *re(y)-*

Dialects with
iterative in CV-
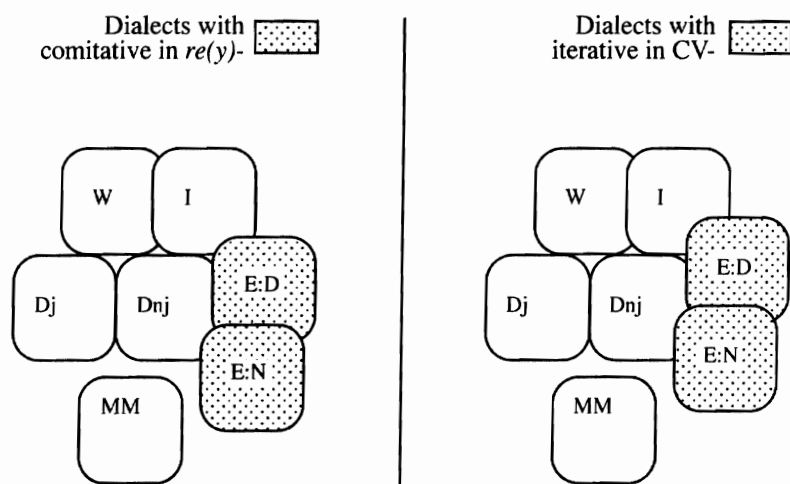
Figure 1.5: Some uniquely Kune isoglosses

The two features discussed in the preceding paragraph are confined to Kune. However, many other traits are shared with adjacent dialects to the west and/or south. Thus the neutralisation of the past perfective/imperfective contrast is also found in Kunwinjku to the east (isogloss 9) and the extension of instrumental *-yih* to ergative use is also found in Manyallaluk Mayali to the south (isogloss 10).

Isogloss 9: Neutralisation of perfective
vs imperfective contrast in past

Isogloss 10: Exension of instrumental
-yih to ergative use

Neutralising dialects

Dialects that can use *-yih*
as ergative in addition to
instrumental
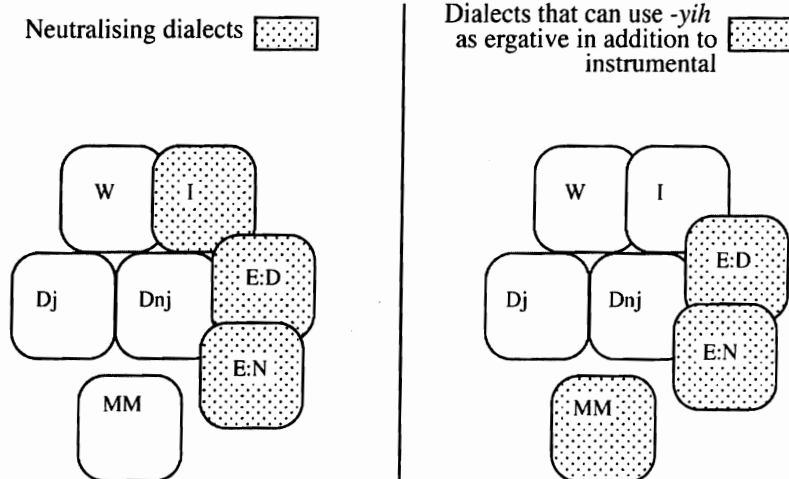
Figure 1.6: Two isoglosses focused on Kune

Other traits, found in their most intense form in Kune, form a cline as one moves westwards. Thus the *-no* suffix, which was probably originally confined to marking possessed parts whose third person minimal possessor had been established in the discourse, has come in Kuninjku and Manyallaluk Mayali to be an alternative marker of part nouns without any anaphoric requirements, though the possessor must still be third person minimal. In Kune it is also an alternative part marker, but with the further extension that the possessor can be of any person (§5.5.2.5). This distribution is shown in Isogloss 11.

Isogloss 11: Conditions on the *-no* suffix
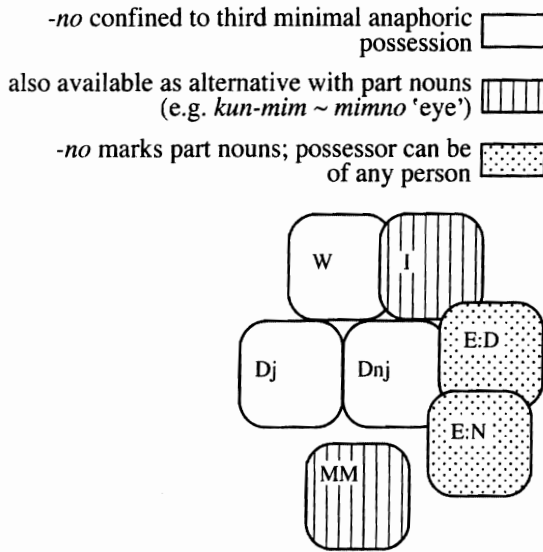
Figure 1.7: Conditions on the *-no* suffix

1.2.6 *Dialects and orthography*

As practical orthographies for the various dialects have been devised, beginning with Kunwinjku in the 1960s and 1970s (superseding earlier systems in use during the 1950s) and followed by Gun-djeihmi, Kuninjku, Kune and Manyallaluk Mayali in the late 1980s and early 1990s, the attitudes that speakers have traditionally held towards dialect variation have been transferred to the arena of orthography, with the upshot that in many instances orthographic difference has been regarded as just as acceptable and even desirable, as differences in pronunciation, grammar and lexicon. These attitudes are at once ethnocentric and pluricentric, in regarding one's own dialect (and written materials reflecting that dialect) as best for oneself and one's kindred, but being tolerant of (if sometimes amused at) the use of other dialects as appropriate for other social groups.

As a result of these attitudes three different orthographies are now in use: the Kunwinjku orthography, the longest-established and now in use for Kunwinjku, Kuninjku and Kune; the Gun-djeihmi orthography, in use for Gun-djeihmi; and the Mayali orthography, used for Manyallaluk Mayali. Although my early discussions with Gun-djeihmi people in 1987–88 had resulted in a decision to use the Kunwinjku orthography, subsequent discussions in 1990–91 moved away from this position, partly motivated by the desire of some key individuals to have a distinct orthography and partly by the optimistic desire (in the special circumstances of the orthography being most visible in road signs, interpretive materials, pamphlets etc. inside the Kakadu National Park) that it would lead to approximately correct pronunciations by the thousands of non-Aboriginal visitors to the Park.

The fact that the Kunwinjku orthography was extended to the Kuninjku and Kune languages had a number of reasons, partly based on the use of parallel orthographies for other languages with literacy programs in Maningrida (e.g. Ndjébbana) and partly on the use of some existing Kunwinjku materials in the (very elementary and largely unfunded) bilingual programs run in the Kuninjku and Kune outstations.

The Manyallaluk Mayali orthography developed out of a different literacy resource centre (first Barunga school and later the Katherine Regional Aboriginal Language Centre). These were substantially occupied with other languages (especially Kriol and Jawoyn) and transferred many of the orthographic principles used in these languages to the Mayali orthography.

As the above remarks will show, the three separate orthographies all grew out of distinct local developments and there has never been a concerted attempt to develop a unified orthography. This is not an unusual situation in Australia — there are four different orthographies in use for different dialects of the Western Desert language (spoken over a vast area, in three states each with their own educational bureaucracy) and as many for the Arandic dialects, spoken over a much smaller region. Although it necessitates the preparation of dialect-specific materials, this is what speakers themselves ask for; they also express a preference for dialect-specific dictionaries rather than one that includes material from the whole dialect chain.

Obviously, though, this complicates the job of writing a pan-dialectal grammar, burdening the reader with three separate orthographies and the writer with the hornet's nest of which orthography to use when making statements that apply to more than one dialect. My (admittedly only partially satisfactory) solution has been as follows: information about the three orthographies is given in the phonology chapter, following the discussion of relevant phonemic contrasts and broken into sections on vowels (mercifully the same across dialects), diphthongs and consonants. When making general statements, or citing forms that are the same in all dialects, I use the Kunwinjku orthography unless this seems unnatural because I am taking another dialect as point of departure. When discussing dialect-specific features I use that dialect's orthography. For Gun-dedjnjenghmi, which has no established orthography, I use the orthography of the dialect closest to it, namely Gun-djeihmi; I also use this for statements true of the Mayali dialect group as a whole. For the title of the book and the spelling of the language name throughout, one orthography had to be used and I have opted for the Gun-djeihmi spelling in deference to my first language teachers. My apologies to those linguists whose love of consistency is offended by this complex solution (though one in the spirit of multiple ranked constraint violations!) and to those language speakers who see words spelled in ways they are not accustomed to.

1.3 Genetic and areal position

In this section I first place Bininj Gun-wok in its genetic perspective, then pass to a consideration of its neighbouring languages and the various levels of influence they have had, closing with some brief comments on more recent contacts with Macassarese.

1.3.1 Genetic position

Bininj Gun-wok is a member of the so-called Gunwinyguan family and in fact the family name is based on Kunwinjku,[14] as the most numerous language of the group. This family is the most numerous and widespread group of non-Pama-Nyungan languages, spreading like an octopus across Arnhem Land, centred on the Arnhem Land escarpment (see the Map) but with tentacles extending to the north, east, west and south.

Typologically, languages of this group are characterised by complex verb morphology with subject and object prefixes, incorporated nominals, adverbial and applicative prefixes and suffixes for reflexive/reciprocal and tense/aspect/mood and, in nominal morphology, prefixation for four or five genders/noun classes and suffixation for a relatively limited range of cases. Phonologically almost all Gunwinyguan languages have two medial stop series, a codal glottal stop, rich possibilities for coda consonant clusters and five vowels with no length contrast. In all these respects Bininj Gun-wok is typical of the language family as a whole.

Naturally some of the member languages have altered this typology somewhat. Kungarakany, at the western extremity, has no noun incorporation and most languages have reduced the number of genders (to four in Kunwinjku, Kunbarlang and Ngalakan, to three in Mayali and Jawoyn), or gotten rid of gender contrasts altogether (as in Kungarakany, Dalabon and Rembarrnga). Only Ngandi — and Nunggubuyu if this is included in Gunwinyguan — have the original five-class sytem. Nunggubuyu, probably as a result of intense interaction with the Maran languages (Heath 1984), has lost the long–short stop contrast by leniting short stops and leaving historical long stops as the only stop category, has reduced the number of vowels to three (but introduced a length contrast) and in general has undergone so many phonological changes that comparisons with the other Gunwinyguan languages are frequently obscured.

Figure 1.8 gives a provisional classification of the Gunwinyguan languages, based partly on a lexicostatistical classification and partly on my qualitative evaluation of the most salient similarities in phonology and morphology. Percentage figures denote the minimum percentage of words from the Swadesh 100-word list between any pair of languages below that node of the tree. A few key morphological innovations are likewise noted beside particular nodes, indicating that all daughter languages share a reflex of that innovation. This classification is, it must be stressed, heuristic only: there is as yet not even a single published dictionary of a core Gunwinyguan language and this has held up the reconstruction of phonological change (though see Harvey forthcoming); many languages still lack comprehensive grammars, notably Kunbarlang, Kungarakany, Jawoyn and

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[14]   An earlier spelling, Gunwingguan (e.g. O'Grady, Voegelin & Voegelin 1966; Harris 1969a) was based on a phonetically inaccurate spelling of the language name as Gunwinggu; many early investigators failed to hear the /ŋk/ cluster correctly.

Dalabon;[15] and the process of distinguishing genetic from areal traits requires a careful sifting of dozens of complex morphological paradigms.
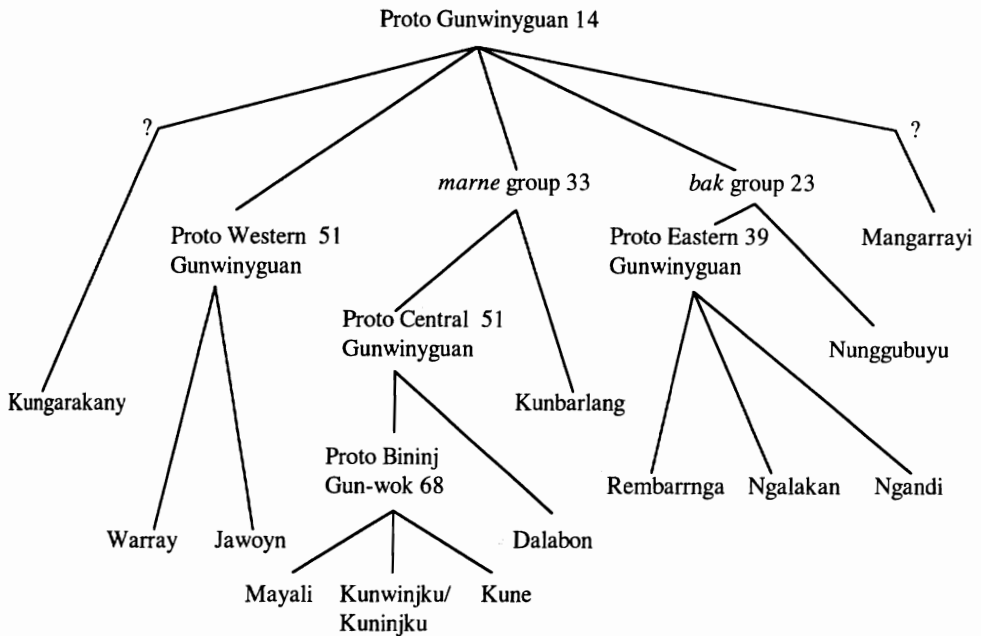
Figure 1.8: The Gunwinyguan language family

Whether Kungarakany and Mangarrayi should be grouped within Gunwinyguan is currently unclear. Each lies at the periphery of the language family (respectively to the west and south), has been treated as an isolate in previous classifications (O'Grady, Voegelin & Voegelin 1966; Wurm & Hattori 1981), lacks normal typological features of Gunwinyguan languages (e.g. noun incorporation) and has a lower cognacy rate with the other members of Gunwinyguan. However, each also shows tantalising resemblances to Gunwinyguan. Mangarrayi, for example, has many cognate irregularities of reconstructable Proto Gunwinyguan past perfective forms, except that the characteristic final nasals found in other Gunwinyguan languages have been hardened to stops (e.g. Mang *wab* 'visited' corresponding to BGW *wam* 'went', with the nasal attested in all other languages — see Harvey (forthcoming) and Alpher, Evans & Harvey (forthcoming) for full discussion). Overall their position remains unclear and they will not be discussed further here.

These languages apart, the Gunwinyguan languages fall into three clear subgroups: western, comprising Warray and Jawoyn,[16] central, comprising Bininj Gun-wok and Dalabon and eastern, comprising Rembarrnga, Ngalakan and Ngandi.

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15   However work is in progress on these languages by, respectively, Carolyn Coleman, Nick Evans, Francesca Merlan and Evans and Merlan. The early grammars of Kunbarlang by Harris (1969b) and of Dalabon by Capell (1962) are neither comprehensive nor reliable.

16   The earliest classifications treated Warray as an isolate (O'Grady, Voegelin & Voegein 1966; Wurm & Hattori 1981), but recent work by Mark Harvey (forthcoming) has shown it to be a Gunwinyguan language with telling shared similarities with Jawoyn.

Each of the latter two subgroups appears to have a further member whose position is a little less clear. Kunbarlang is a puzzling mixture of similarities to central Gunwinyguan and radical differences, perhaps attributable to massive influence from neighbouring non-Gunwinyguan languages of the Arafura coast (Carolyn Coleman, pers. comm.); it shares somewhat higher vocabulary levels (33%) with central than with other Gunwinyguan languages and shares with them certain key morphemes, such as a reflex of the benefactive applicative *marne-* (hence my choice of the name '*marne* group'). However, we still know too little about this language to position it definitively.

Within eastern Gunwinyguan, Nunggubuyu presents problems of classification. Jeffrey Heath, author of a masterly grammar and deeply knowledgeable about languages of eastern Arnhem Land, suggests it is grouped most closely with Ngandi and the Groote Eylandt language Anindilyakwa (Heath 1997). My own view is that many of the similarities he cites are shared retentions rather than innovations, that it is closely related to the eastern Gunwinyguan languages in what I label the *bak* group (after the shared innovation of benefactive applicative *bak-*) and that in general it has remained morphologically conservative while undergoing phonological change. However, the question is still wide open and will only be resolved by widening the framework of comparison so as to better decide what is retention and what is innovation.

With regard to the wider genetic position of the Gunwinyguan family, it is one of the twenty of so families designated 'non-Pama-Nyungan' that cover the north-western eighth of Australia, namely the Kimberleys, Top End and the south-western Gulf. The label 'non-Pama-Nyungan' distinguishes these languages negatively from Australia's most numerous and widespread family, Pama-Nyungan, that covers the remaining seven-eighths of the continent and that shares a number of innovations in morphology, pronoun systems and phonology (see Evans & Jones 1997 and references therein). As a negative label, 'non-Pama-Nyungan' does not entail the genetic unity of its member families (except in the deepest sense, as fellow members of the Australian phylic family), although a number of similarities across the non-Pama-Nyungan languages have been identified (as in Blake 1988; Heath 1990; Harvey forthcoming).

A number of other neighbouring language families appear to be relatively close to Gunwinyguan: Wardaman/Wagiman (included by Harris 1969a in her 'Yangmanic subgroup' of Gunwinyguan) to the southwest, the Maningrida group to the northeast, the Iwaidjan languages to the northwest. Some of these resemblances will be touched on in the next section. There are also affinities with the Pama-Nyungan family, whose system of conjugation markers (Dixon 1980) bears some significant resemblances to the conjugation system in Gunwinyguan languages (Alpher, Evans and Harvey forthcoming). In none of these cases is our understanding of the historical relationships yet clear enough to propose a concrete grouping. But it seems inevitable that detailed comparative reconstructions will in the future support the setting up of an intermediate-level grouping linking Gunwinyguan to one or more of these families — let us call it Proto Arnhem, for the sake of argument, without suggesting that its members are coextensive with all the languages of Arnhem Land (see Green forthcoming).

Two brief examples will illustrate the difficulties.

In the case of gender prefixation, for example, it is clear that Gunwinyguan, Iwaidjan and the Maningrida group all descend from an ancestral system having five genders, showing some suppletion according to case relationships (e.g. masculine *na-*, with a form *ki-* that was probably genitive; feminine *ngal-* (genitive *(k)iny-*), vegetable *ma-* with alternate *nga-*, neuter *ku-*, neuter 2 *ra(k)-*). This has collapsed in some descendant

languages (leaving *na-* in some languages and a reflex of *ki-* such as *yi-* in others) and disappeared in others (e.g. Dalabon or Rembarrnga). However, so many other non-Pama-Nyungan languages show reflexes of such a system (e.g. Ungarinyin in the Kimberleys, Nungali in the Victoria River Region and other languages of Arnhem Land such as Gaagudju and Umbugarla which appear only distantly related to Gunwinyguan) that it must be imputed to a much deeper level than Proto Arnhem.

On the other hand, a study of the development of the two stop series may provide a more precise grouping. These are present in Gunwinyguan, Wagiman and the languages of the Maningrida group; they are also present in the Yolngu languages, a Pama-Nyungan enclave, but are likely to be an areally convergent development there. It is generally assumed that the possession of these two stop series is simply an areal feature, but it may turn out to be a shared phonological innovation of Gunwinyguan, Wagiman and the Maningrida languages (with areal influence stimulating convergent developments in Yolngu). It is also possible that they developed in other groups (such as Iwaidjan) which then lost them through the lenition of the short stops. The point is that at present we have no study of the historical phonology of these groups and it may be some time coming given the lack of good lexical sources for many of the languages. The collection of a sufficient number of cognate sets to test the hypotheses is also made more difficult by the low level of cognacy (generally around 10% between these families, but in Australia such low levels should not be taken to rule out genetic connection); this increases the importance of having sizeable dictionaries before such work can be undertaken.

1.3.2 Neighbouring languages and territories

The Bininj Gun-wok dialect chain lies in the midst of Australia's most linguistically complex region. Considering the dialect chain as a whole, speakers traditionally maintained social contacts with speakers of several dozen languages within a radius of several hundred kilometres of the Arnhem Land plateau; many of these have now become extinct (e.g. Erre, Urningangk, Umbugarla) or nearly so (Gaagudju, Marrgu, Amurdak, Ngandi).

About a dozen languages were (and mostly still are) spoken in areas close enough to the traditional clan territories of Mayali, Kunwinjku or Kune speakers to have been in regular contact (see map); it is likely that all of these will ultimately be shown to have, at the least, donated some vocabulary, while others have had more far-reaching influences. I shall briefly sketch the way in which these languages relate to Bininj Gun-wok, working clockwise from the Cobourg Peninsula.

Three languages of the Cobourg Peninsula to the northwest are in immediate contact with Kunwinjku and Mayali: Amurdak, Iwaidja and Maung; further northwest are/were three others, the near-extinct Garig/Ilgar and Marrgu and the extinct Wurrugu (Evans 1996). All these languages belong to the Iwaidjan family, which is only remotely related to Gunwinjguan. These languages have subject and object agreement, but practically no other verb-prefixal morphology and no noun incorporation. A five-class gender system showing cognacy of four classes is reconstructable (Evans 1998) and survives in some of them (most clearly in Maung), but the phonological systems are quite different, lacking a second stop series, glottal stop and (reconstructable) mid-vowels and mostly possessing an extra series of flapped laterals. Contemporarily, there is widespread bilingualism between Kunwinjku and Iwaidja or Maung; traditionally it is likely there was a similar amount of contact with Amurdak. Iwaidja, like Bininj Gun-wok, is something of a lingua franca, which was widely used on luggers from Darwin to Gove and many Macassan loans have been passed into Bininj Gun-wok through Iwaidja (see §1.4.3).

There have been large numbers of loans in both directions, including animal, plant and meteorological terms (e.g. *mirridjbu* 'seagull' and *makkumbu* 'evening storm during wet season', both borrowed from Iwaidja), but also the phratry terms, again most likely borrowed

from Iwaidja and the subsection terms, diffused from Bininj Gun-wok into Iwaidja and Maung sometime after the inception of contact with Macassans (Evans 1997b). The existence of a large body of shared technological and plant vocabulary in a stratum old enough to have undergone distinctive sound changes in both languages suggests a long period of coexistence. In terms of Aboriginal mythology the links with the Cobourg language groups are emphasised by the creator story of Arramurrunggunjdji, the Dreamtime Sisters who came ashore at Cape Croker and travelled up the Cobourg peninsula into what is now Kunwinjku-speaking territory. Their name itself is a loan from Iwaidja, where *warra-* is a plural prefix, as in *warra-mundujun* 'females', *warr-urldunggurldu* 'older women', *warra-bunyi* 'fathers' (Pym & Larrimore 1979:56–57).

Immediately north of Kuninjku and Kune on the Arafura coast are speakers of Kunbarlang, another Gunwinjguan language, whose position within the Gunwinjguan family is currently unclear.

To the northeast and east, along the Arafura coast and hinterland south of Maningrida, are various languages recently shown (Green forthcoming) to belong together in a so-called 'Maningrida' group, which is related to Gunwinjguan at an intermediate time depth: Ndjébbana (also known as Gunibidji or Gunividji) (McKay 2000), Nakkara (Eather 1990), Burarra (with its dialects Gidjingarli and Gun-nardba) and Gurr-goni (Green 1995). Like the Gunwinyguan languages, the Maningrida languages have two stop series, a phonemic glottal stop and five vowels. Burarra and Gurr-goni retain a four-gender system cognate with Gunwinyguan; verbs are prefixed for subject and object, though the overall possibilities of verb prefixation are more limited than in Gunwinyguan and the languages make heavy use of verb-serialising constructions. Judging by the only published vocabulary of a Maningrida language, Burarra (Glasgow 1994), there has been substantial lexical borrowing in both directions between Bininj Gun-wok (particularly the Kune dialect) and Burarra, though the phonological similarities make the direction of borrowing hard to determine.

To the immediate south-east are Rembarrnga (McKay 1975) and Dalabon. These languages, particularly Dalabon, are closely related to Bininj Gun-wok, though not so close as to be mutually comprehensible. The most significant differences between the latter two languages and Mayali are two innovations: their loss of noun class prefixes and related development of a part class of nouns with obligatory suffixation for person of the possessor and the development of a sixth, high central, vowel. The long-standing bilingualism with these languages in some speech communities was discussed in §1.2.4.3, along with the likelihood that there has been some language shift from Dalabon to Kuninjku and Kune and strong typological influence from Dalabon on these dialects. Beyond them to the south-east are Ngandi (Heath 1978) and Ngalakan (Merlan 1983), structurally quite similar to Bininj Gun-wok in not having lost noun classes or developed a sixth vowel, but not in close contact with it; I have not met any Bininj Gun-wok speakers who know either of these two languages. Ngandi is particularly interesting for comparative studies of Gunwinyguan because of its heavy lexical and structural influence from neighbouring Yolngu languages, and its conservative phonology — most importantly its conservation of a sixth point of articulation (lamino-dental) that has been lost in all other Gunwinyguan languages.

Further east are various languages of the Yolngu subgroup of Pama-Nyungan; these languages form an enclave, in generally non-Pama-Nyungan Arnhem Land, of a language family that covers seven-eighths of the continent (see Evans & Jones 1997 and references therein). Geographically closest are Djinang and Djinba (Waters 1989) and beyond them to the east are Djapu (Morphy 1983), Gumatj, Gupapuyngu, Djamparrpuyngu, Rirratjingu,

Ritharrngu (Heath 1980) and others. Though not close to Bininj Gun-wok genetically, the Yolngu languages have been associated with a number of important diffused cultural items, most importantly the system of patrimoieties known in Bininj Gun-wok as Duwa/Yirridjdja and in the Yolngu languages as Dhuwa and Yirritja,[17] but also such as terms as Dj *galngbui* 'animal temporarily forbidden to family of young boy who speared it as his first kill', from Yolngu-Matha *ga:lngbuy* 'game killed by male before puberty', etymologisable as *galng* 'hunting' plus associative suffix *-buy*. The fact that linguistic influence also went the other way is attested by the Yolngu-Matha word *manymak* 'good', which originated in Bininj Gun-wok, Dalabon or Rembarrnga (its etymology is *manj* 'taste, savour' and *mak* 'good'). The long-standing mutual influence between Gunwinyguan, Maningrida and Yolngu languages is also shown by the extraordinary similarities in their phonologies, all characterised by three features unusual in Australia: a lenis/fortis stop contrast, syllable-final glottal stops and a predominance of closed syllables.

To the south-west is Jawoyn, spoken in four main dialects: Gerriny?mi around Gimbat, Ngarla?mi along the Cullen, Edith and Fergusson Rivers, Letburrirt in the lower Katherine catchment and Jawoyn Ngan-wirlang to the north-east of these other dialects (Merlan 1989). According to Minnie Alderson, Jawoyn territory extended as far north as Nourlangie Rock. Gun-djeihmi-speaking members of the Badmardi and Mirarr clans had regular contact with Jawoyn speakers and often refer to them as 'company'; many place names in Badmardi territory are Jawoyn (e.g. *Gulinj Djarang Djarang*, which means 'bat dreaming' in Jawoyn and *Gorlonjdjorr*, the Jawoyn name for the northern nail-tail wallaby) which may indicate either that Gun-djeihmi had displaced Jawoyn in that area, or that the names were bestowed through the Jawoyn associations of particular ancestral dreaming figures. There have been many lexical loans in both directions; the direction of borrowing is easy to identify thanks to the widespread intervocalic lenition undergone by Jawoyn words (giving *lawul*, for example, as the Jawoyn equivalent of Gun-djeihmi *ragul* 'red-eyed pigeon, *geophaps smithii*'). The most striking shared grammatical characteristic is the behaviour of the gender system, with Jawoyn and Gun-djeihmi (but not Kunwinjku) having generalised the *(ng)an-* class for agreement with all non-human noun classes. The kinship system of Gun-djeihmi, in particular the semantics of the grandparent terms, also exhibits Jawoyn influence (see §1.4.1.1).

To the west and north-west, in the floodplains of the Alligator River and Cooper's Creek, were a number of languages only distantly related to Bininj Gun-wok: Umbugarla, Bugurniidja, Ngurmbur and Gaagudju. All of these are extinct or close to extinction; only Gaagudju has been substantially documented (Harvey 1992), though we have some information on Umbugarla (Davies 1989). These languages are all extremely complex phonologically and morphologically, with many portmanteau pronominal prefixes and large numbers of verbs that supplete for tense and/or number, all complicating the task of interpreting what scant materials are available. Earlier classifications (e.g. Wurm & Hattori 1981; Harris 1969a) leave some of these unclassified and assign others to distinct family-level groups; and indeed it is hard to say much about languages that combine such irregularity with scanty attestation. Judging by the low level of shared vocabulary between these languages and Bininj Gun-wok, there appears to have been little linguistic contact . However, there are a number of (probably recent) Umbugarla loans in Gun-djeihmi, mostly pertaining to floodplain animal species and technologies (e.g. *djerli* 'water goanna' < Umb *dji:li* and

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17   The dental *dh* is assimilated to *d* in all borrowing Gunwinyguan languages except Ngandi.

widjaluk 'paddle' < Umb *widjaluk)*. However, this could also come from Iwaidja, where it is /wiḍalug/.

Finally, in the north-western corner of the escarpment were spoken three languages — Erre, Mengerr(dji) and Urningangk (called Wurningak in Bininj Gun-wok) — which appear to have been closely related to each other and were grouped by the Gagudju as Gimbi-yu (lit. 'associated with the stone country'). Wurm and Hattori (1981) group these as the 'Mangerrian' family. Today, members of the clans traditionally speaking these languages have switched to Kunwinjku, so that all three are extinct, though some materials were recorded between the 1940s and 1960s by Capell, Harris and others from the last speakers; Mark Harvey has recently checked older materials with the last semi-speakers. The Gimbi-yu languages have highly unusual phonotactics with six vowels (including /œ/), many vowel-initial words and complex final consonant clusters (e.g. /ŋm/ Mark Harvey, pers. comm.). Systematic comparison of their vocabulary with other groups is urgently needed.

Overall,[18] Bininj Gun-wok and its Gunwinyguan relatives (Dalabon, Rembarrnga and Jawoyn) were traditionally spoken around the edges of the Arnhem plateau, across which networks of trade, intermarriage and ceremonial exchange appear to have linked them all, as *na-warde-gen* or 'stone country people', in opposition to those living in the floodplains, lowlands and coastal regions. However, recent migrations of Kunwinjku speakers to the Oenpelli region and of Mayali speakers into the buffalo country, have blurred this picture. Before these migrations, the most significant exceptions to the association of Gunwinjguan languages with the escarpment were the Mirarr Gun-djeihmi clan, speaking Gun-djeihmi but living around the headwaters of the East Alligator River and the Kunbarlang, who are the only Gunwinjguan speakers dwelling on the coast. It seems likely that both these cases represent relatively recent moves down from the plateau (cf. Harvey 1990), but confirmation of this will need to wait on detailed comparative work on their lexicons.

Although I have focussed on the languages immediately adjacent to the Bininj Gun-wok dialect chain, which in itself provides a picture of some complexity, there were additional, more distant, linguistic contacts in traditional times, though the effects of these were probably restricted to lexical borrowings. The great trading route known by the Gun-djeihmi word *bulk* ran from the Arafura coast through the Mayali region away to the Tanami desert several hundred miles to the southwest; Mayali speakers traded stone points and bamboo spear shafts southwards in exchange for boomerangs (restricted to ceremonial use in this region) and other items. It is likely that the subsection terms arrived along this route, as did terms for traded items like boomerangs in this area. For example, the word for 'boomerang' in Mayali is *birrgala*, of unknown origin, but in languages to the north (e.g. Burarra, Iwaidja) it is *garligarli* or some variant thereof (e.g. Maung /gaḻiɣaḻi/), cognate with such boomerang words as *karli* in Warlpiri (see Evans & Jones 1997:402–406).

Besides the *bulk* trade, participation in the ceremonies of other groups near and far was the norm, so much so that there were special terms for 'graduates' of each of these ceremonies; most of these terms are formed by prefixing *Nadjorr-* to the name of the ceremony. For example, young men who had been through the *Wangga* ceremonies of the Wagadj on the Beagle Gulf were called *Nadjorrwangga* and those who had been through the Walaga ceremony of Pine Creek and the Daly were called *Nadjorrwalaga*. On the other

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[18]   This view is given from the perspective of Bininj Gun-wok and leaves out some of the more distant Gunwinjguan languages, such as Ngalakan and Ngandi far to the south-east and Warray and Kungarakany to the west.

hand, the term *Nadjorrlirra* normally designates 'foreign' graduates of the *Lirra* ceremony held in the Oenpelli region.

Other distant ceremonies are the *Garrwardi* ceremony from Wave Hill, the *Arlarrmanjdji* woman's ceremony from Bamyili and the widespread *Yaburdurrwa* or *Djaburdurrwa* ceremony. As well as the names of the ceremonies themselves, vocabulary pertaining to ceremonial apparatus is frequently borrowed, as is vocabulary for particular ceremonial roles, such as *Djunggai* 'those in the moiety going through, as opposed to staging, the ceremony', which has been borrowed from languages of the Roper region. A full account of the rich ceremonial life of the region, including discussion of the geographical origins of the various ceremonies, is in Berndt and Berndt (1970a); see also Maddock (1969).

1.3.3 Impact of Macassan

Our overview of the pre-European linguistic contact situation would not be complete without a consideration of the effects of the Macassans. Praus from Sulawesi, engaged in gathering trepang, tortoise-shell, pearlshell and sandalwood, visited the Arnhem Land coast from at least the beginning of the eighteenth century. They developed regular contacts with coastal Aboriginal people and all of the languages along the coast between the Cobourg Peninsula and Groote Eylandt show evidence of substantial lexical borrowing. In the best-documented case, Yolngu-Matha, there are well over two hundred loans (Walker & Zorc 1981); there are also scores of loans in the Iwaidjan languages (Evans 1992a). There is some evidence (summarised in Urry & Walsh 1981) that a Macassan-based pidgin was used as a contact language between distant Aboriginal groups. Most loan words are from Makassarese, though some are from Malay and it seems that a mixture of the two languages was employed by the crews. Following established practice, I use the term Macassan for all contacts emanating from the port of Macassar, when one does not specifically wish to distinguish these linguistic sources, restricting 'Makassarese' [Mkr] for words known to be from that language. Although it is known that the Bugis were involved in the trepang trade, there are no clear cases of Bugis loans.

As an inland people, speakers of Bininj Gun-wok would have had fewer contacts with the Macassans. Fewer than twenty Macassan loans have been identified and there are no identifiable effects on the grammatical or phonological systems. One loan (*an-badjdju* 'wild potato') has accrued a vegetable class prefix; others are left unprefixed. For fuller discussion of possible routes of indirect borrowing and fuller etymological information, see Evans (1992a).

Most Macassan loans pertain to introduced items or animals, or new categories of people:

MATERIAL CULTURE *baddumang* 'glass, mirror' < Mkr *patomang* 'compass; mirror' (semantic shift based on reflective or glass object — in Yolngu-Matha it has come to mean 'swimming goggles'); *an-badjdju* 'wild potato' (Dj) < Mkr *pacco* 'taro, colocasia sp.'; *badjubadju* 'coat, shirt' < Mkr *bajubaju* 'short-sleeved jacket', Malay *baju* 'shirt, jacket', (from Persian *bazu* 'shoulder'); *balabbala* 'table, sleeping platform, esp. platform used in tree burials' < Mkr *balla?balla?* 'cottage, small house; couch'; *bikkang* 'fish-hook' < Mkr *pekang* 'fish-hook; rod'; *burru-burru* 'scabies' < Mkr *puru-puru* 'pimples, pustules'; *djala* 'sling net' < Malay *jala* 'casting net'; *djaluwarrra* 'trousers' < Mkr *jaluwara?* 'trousers' (from Persian *shalwar*); *djarrang* 'horse' (W) < Mkr *jarang* 'horse'; *djurra* 'book, paper' <

Mkr *sura?* 'letter'; *kabbala* 'boat' < Mkr *kappala?*; *kayungkayung* 'paddle, oars' < Malay *kayuh* 'oar, paddle'; *kalurru* 'cigarette; cigarette paper' < Mkr *kaluru?* 'to roll up; cigar'; *kandidjawa* 'flour; damper' < Mkr *kanrijawa* 'kind of sweet cake'; *lama* 'shovel-nosed spear' < Malay *lamang* 'short sabre'.

CATEGORIES OF PEOPLE *balanda* 'European, non-Aboriginal person' < Mkr *balanda* (from Dutch *Hollander*); *bangku* 'half-caste person' < Iwaidja *banggu* 'mangrove bark, used to give a pinkish colour to boiled trepang; half-caste person' < Mkr *kayo bangko* 'mangrove species whose bark is used to colour trepang'; *jawirna* 'friend, disciple' < Mkr *toana* 'guest'.

Words for two winds are also borrowed from Macassan: *barra* 'north-west wind; monsoon' < Mkr *bara?* 'west wind'; *djimurru* 'east wind' from Mkr *timoro?* 'east wind'.

1.4 Ethnographic background

Pre-contact culture — and there are people alive today who did not see Europeans until their teens — involved a hunter–gatherer economy exploiting the rich animal and plant life to be found around the northern edges of the Arnhem Land escarpment, an area with a monsoonal climate, plentiful water in rivers and billabongs and ecosystems including wet sclerophyll forest, flood-plains, pockets of monsoon vine-forest and the open sandstone uplands of the escarpment. The clan territories of Bininj Gun-wok speakers did not lie on the sea, but often directly abutted those of coastal clans. The whole region, with its many caves and rock shelters, abounds in rock-art going back at least twenty thousand years and human occupation of this area goes back beyond fifty millennia. The rock art tradition informs what is today the biggest source of outside income, namely painting, predominantly on bark. There are dozens of major painters within the population of two thousand or so speaking Bininj Gun-wok.

There is a rich body of ethnographic material on the western Arnhem Land region, beginning with Spencer's classic *Native tribes of the Northern Territory of Australia* (1914), running through the many works by the Berndts (e.g. Berndt & Berndt 1951a, 1970a) and research on land tenure by Keen (1980), Kesteven and Smith (1983) and Merlan and Rumsey (1982), to work on the articulation between hunter-gatherers and the modern Australian economy by Altman (1982, 1987), on art and visual symbolism by Taylor (1987), on rock art by Chaloupka (1993) and on ethnobotany by Chaloupka and Giuliani (1984), Altman (1981) and Russell-Smith (1985). Specifically dealing with the ethnography of the Kakadu region is the 'Cultural Survey' by Chaloupka et al. (1985), and Levitus' (1988) ethnohistorical examination of post-contact life, particularly Aboriginal participation in the buffalo and other industries. Harvey (1990) discusses the land–language–group relationships of the region. I shall not recapitulate this work here and shall confine my discussion to those ethnographic issues that abut more or less directly on language.

Throughout the western Arnhem Land region the basic unit of social organisation is the patrilineal clan, known as *gun-mogurrgurr* in Mayali and *kun-nguya* in Kune. Ideally at least, each clan is named and has a clearly defined territory within which male clan members and their spouses would normally be based, though travel, for example for purposes of ceremony and trade, was common. People have deep emotional ties to their clan lands, reinforced by a sense of responsibility for the many sacred sites found there and the presence of ancestral bones kept wrapped up in paperbark in rock caves and crevices. Clan affiliation

remains important even among people living in larger settlements and mostly away from their clan lands; one motivation of the outstation movement is to enable people to once more live on their clan country.

Each clan (often in common with other clans) is traditionally affiliated with a particular language, though over time this linguistic allegiance can switch, as has often happened between other languages (Erre, Urningank, Ngurmbur and Dalabon) and Bininj Gun-wok; the issue of clan-specific lects was discussed in §1.2.4.7 above.

Although the patrilineal clan is the most overt social grouping, matrilineal links to land — to one's 'mother country' — are also important. In Mayali the compound *bo-garrang*, lit. 'water-mother', is used to designate one's mother's country or clan, as in the sentence *yibogarrang NaMarrirn* 'your mother's country (clan) is Marrirn'. According to Kesteven (1984) the Kunwinjku expression *kun*-(clan) is used to designate one's mother's clan; I have not heard this in Mayali. Uterine links to one's mother's mother's clan are expressed in Mayali, as in Kunwinjku, by the compound *(clan)-gakkak* (e.g. *yiBadmardi-gakkak* 'your mother's mother is/was Badmardi', although a closer translation might be 'you are (linked to) the Badmardi through your mother's mother'). Membership of the phratries or *djungunj* is determined matrilineally (see §1.4.2.3).

Ownership of a particular language and ideally but not necessarily the ability to speak that language, was traditionally a central index of clan membership, though many clans of the region have now switched language affiliation. But in the multilingual context resulting from frequent linguistic exogamy (that is, the common practice of taking a spouse from another language group), various types of matrilineal grouping and residence or social participation over a wide area, knowledge of other languages was also significant to one's social identity. In fact many of the Bininj Gun-wok-speaking individuals I worked with, who belong to a clan traditionally speaking another language, learned Bininj Gun-wok from their mothers.

The contemporary lifestyle of Bininj Gun-wok speakers spans a wide spectrum. At the most traditional are the dozen or so outstations between Gunbarlanja and Maningrida, in which small communities of twenty to fifty people live on their traditional lands, still deriving a large part of their sustenance from hunting and gathering, but integrating such technologies as guns, four-wheel drives and cassette recorders into their lives, paid for by a combination of income from painting and crafts and social security payments. At the other extreme are people living in *balanda*-style towns such as Jabiru, working as rangers, in eco-tourism ventures or in western-style offices (such as the Australian National Parks and Wildlife Services). Others live in larger settlements, such as Oenpelli, Maningrida and Barunga, originating as missions or government settlements for Aboriginal people. Despite these very different lifestyles and the divergent values that go with them, networks of kinship, marriage and shared ceremonial participation link together people over the whole region and individuals often move back and forth between these worlds.

The ability to maintain valued aspects of traditional lives is supported by the inclusion of most clan territories within either the Arnhem Land Aboriginal Reserve or the Kakadu National Park, which is formally Aboriginal land leased back to the Commonwealth for use as a co-managed Park. However, neither security of land tenure nor the existence of extra financial support to some groups from royalty payments has been enough to avoid the far-reaching problems afflicting the Aboriginal population since European settlement: poverty, alcoholism (though most outstations and some communities, such as Manyallaluk, have banned alcohol), high infant mortality, poor health and limited education and employment.

1.4.1 Kinship

As in all Australian Aboriginal societies, kinship is the dominant organising principle of social relations and one's kin relation to somebody largely determines how one should behave with them. As a result, everyone in the familiar social universe is treated as kin, necessitating the denotational extension of kin terms, which is achieved by 'classifying' certain individuals as equivalent to others. For example, my 'father's brother' is classified as equivalent to my 'father'; his children (who would be called 'cousins' in English) are now equivalent to my father's children, that is, they are my classificatory brothers and sisters and so forth. This section gives an overview of the system, though a full treatment is beyond the scope of this grammar.

There is significant variation in the structure of the kinship system across dialects; the most significant difference pertains to whether marriage is permitted with classificatory first cross-cousins (i.e. FZC or MBC) or restricted to second cross-cousins (i.e. MMBSC or FFZDC) and in whether two, three or four descent lines are distinguished in the grandparent's generation. This variation is discussed in §1.4.1.1. For the moment we merely illustrate the overall principles involved by considering the Kuninjku system, drawing on material in Taylor (1987) and Garde (1995). Figure 1.9 shows the main kin terms from the point of view of a male ego.

Three types of semantic extension merit comment here.[19]

Firstly, there is extension of terms in all generations to cover same-sex siblings. Thus FB is known by the same term as F, *ngabbard* and MZ by the same term as M, namely *karrard*. The offspring of these terminologically collapsed pairs are likewise not distinguished, so that FBC, like FC, is terminologically one's sibling rather than one's cousin. Likewise MMZ is *kakkak*, just like MM. Except for ego's sibling, where older and younger siblings are distinguished, same-sex siblings are not allocated different points on the chart, since they are terminologically and systemically identical. In even-numbered generations sibling equivalence extends to opposite-sex siblings as well: MM = MMB (*kakkak*), FM = FMB (*makkah*), MMBDD = MMBDS (*kanjok*) and so on; the only exceptions, again, are ego's siblings. In odd-numbered generations there is more limited opposite-sex equivalence: *kangkinj* is both ZD and ZS and *ngalkurrng* 'MMBD' and *nakurrng* 'MMBS' share the same root, but M and MB and F and FZ, are terminologically distinguished.

The second type of extension applies to relatives two generations apart. Thus the terms *ngadjadj* (basically MB) and *berluh* (basically FZ) recur in the -1 and +3 generations, as well as in the -1 generation (that is, they are extended between kin types who call each other FF(Z)/SC) and *karrard* (M) is extended down two generations to MBSD; again M is FFZ to this person. This parallels the fact, to be discussed below in connection with the eastern subsection system, that an individual and his/her FF(Z) will be in the same subsection category if first-choice marriages are followed. Terminological extension to relatives only one generation removed, on the other hand, does not occur, except for the special Crow skewing rule discussed in §1.4.1.2.

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[19]   See Scheffler (1978) for a full comparative discussion of types of extension rule in Australian kinship systems.
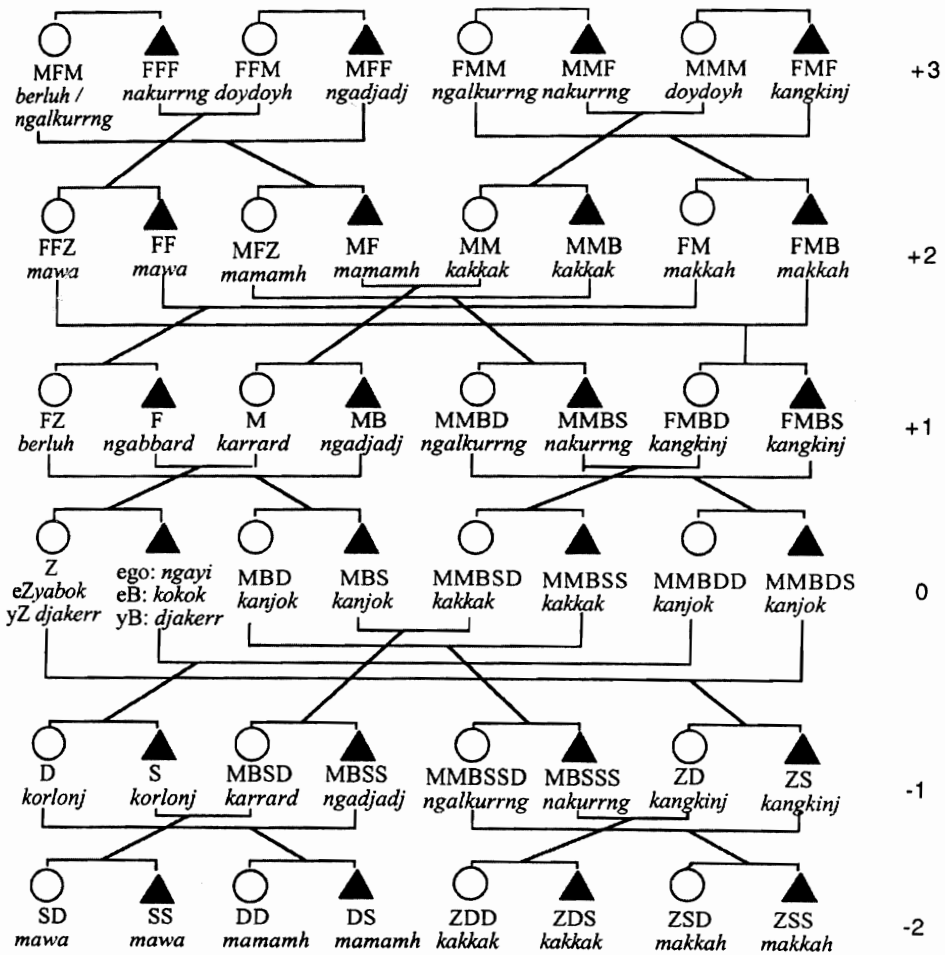
Figure 1.9: Kuninjku kinship system, from viewpoint of male ego
(adapted from Taylor 1987:73 and Garde 1996:69)

MFM *berluh / ngalkurrng*	FFF *nakurrng*	FFM *doydoyh*	MFF *ngadjadj*	FMM *ngalkurrng*	MMF *nakurrng*	MMM *doydoyh*	FMF *kangkinj*	**+3**
FFZ *mawa*	FF *mawa*	MFZ *mamamh*	MF *mamamh*	MM *kakkak*	MMB *kakkak*	FM *makkah*	FMB *makkah*	**+2**
FZ *berluh*	F *ngabbard*	M *karrard*	MB *ngadjadj*	MMBD *ngalkurrng*	MMBS *nakurrng*	FMBD *kangkinj*	FMBS *kangkinj*	**+1**
Z *eZyabok* yZ *djakerr*	ego: *ngayi* eB: *kokok* yB: *djakerr*	MBD *kanjok*	MBS *kanjok*	MMBSD *kakkak*	MMBSS *kakkak*	MMBDD *kanjok*	MMBDS *kanjok*	**0**
D *korlonj*	S *korlonj*	MBSD *karrard*	MBSS *ngadjadj*	MMBSSD *ngalkurrng*	MBSSS *nakurrng*	ZD *kangkinj*	ZS *kangkinj*	**-1**
SD *mawa*	SS *mawa*	DD *mamamh*	DS *mamamh*	ZDD *kakkak*	ZDS *kakkak*	ZSD *makkah*	ZSS *makkah*	**-2**

The third type of extension is confined to the +3 and 0 generations and involves neutralisation across grandparental lineages whose members would fall in the same patri- and matrimoieties (see below for further discussion). Whereas the +2, +1, -1 and -2 generations all terminologically distinguish four grandparent lineages and their patrilineal descendants, the +3 and 0 generations collapse certain relatives in different lineages but in the same patrimoiety and matrimoiety. Thus in the third generation up, FFF and MMF are both *nakurrng* and FFM and MMM are both *doydoyh*. And in ego's generation, both his first cross-cousins (MBC) and his second cross-cousins (MMBDC) are *kanjok*. One important

consequence of this is that although one should marry one's second cross-cousin and not one's first, both are terminologically equated as *kanjok*.[20]

Now these terminological equivalences are generally associated with kinship systems of the Kariera type, in which only two grandparent lineages are terminologically distinct and in which marriage between first and second cross-cousins are not distinguished. We shall see below that in some other dialects the kinship system is more consistently of the Kariera type, to the point where the grandparent generation also fails to distinguish four lineages. There has been much debate in the anthropological literature about whether the Kunwinjku system is of the Kariera or the Nyulnyul type (see Scheffler 1978) and it is clear that it is not purely of one type or the other: that the degree to which four lineages are kept apart terminologically depends on the generation level and that some dialects make the terminological distinctions in more levels than others. We shall also see, in our discussion of subsections (§1.4.2.2), that there are two subsection systems at work, with the eastern one logically congruent with a Nyulnyul system and the western one logically congruent with a Kariera system; the variants of the kinship system correlate in an approximate way with the logic of the local subsection systems, but not completely.

Finally, note that this discussion only covers the most basic terms. Firstly, it is limited to address terms; reference terms often differ from these. Some reference terms lexicalise the person of the propositus: while the address term *kakkak*, for example, would be used to address one's MM and can also be used to refer to them, there are such special reference terms as *ngalkinjbarlen* (W) or *ngaldjongmiken* (I) which specifically mean 'his/her MM' (see §6.3.1). Actual siblings are often distinguished from classificatory siblings by special deverbal locutions, so that 'my (actual) father' is *nganbornang* (lit. '(the one who) saw my conception spirit in a dream'), whereas both actual and classificatory fathers are *ngabbard*. Special derivational affixes derive 'dyadic' terms, meaning 'pair, one of whom calls the other K' (e.g. *yaw-ko* 'mother and child pair') — see §5.3.1.2–§5.3.3. There are also special 'bereavement' terms meaning 'someone who has recently lost a relative in category X' (e.g. Dj *na-gomyak* 'man recently bereaved of his wife', *na-marladj* 'boy recently bereaved of his mother'). And there is a whole class of special reference terms that simultaneously reckon the kinship relations to both speaker and hearer (e.g. 'the one who is your MM and my M'); this system is known in different dialects as *gun-dembui*, *kun-derbi* and *kun-derbuy* (§1.5.2).

1.4.1.1 Cross-dialect differences in the kinship system

Across dialects there are substantial differences in the kinship system and associated marriage rules. This is too complex a topic to treat here comprehensively, but will be illustrated by comparing three different divisions of one semantic subfield: terms for grandparents and their siblings.

As in virtually all Australian languages, there is a fundamental distinction between parallel grandparents (FF, MM), in which the same type of filiative link (e.g. father–child) is repeated for two generations and cross-grandparents (FM, MF) in which there are two types of

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[20] In fact this is oversimplified. Some first cross-cousins are reclassified by the Crow skewing rule (§1.4.1.2), being shifted up one generation, while actual spouses and their siblings are called *kakkali*. However, all are considered kinds of *kanjok*.

filiative link. The parallel vs cross distinction survives all variation, but the number and content of grandparent categories otherwise varies markedly.

In the diagrams of Table 1.4 the central column represents the system in W, I and for some Dj speakers (Dj2). The left-hand column represents the situation found with some Gun-djeihmi speakers and the right-hand column represents the Manyallaluk Mayali system.

Table 1.4: Parallel and cross grandparent terms

Parallel grandparent terms

Dj1		W, Dj2, I		MM	
FF	FFZ	FF	FFZ	FF	FFZ
mawah	*gakkak*	*mawah*	*mawah*	*gakgak*	*gakgak*
MMB	MM	MMB	MM	MMB	MM
mawah	*gakkak*	*kakkak*	*kakkak*	*gakgak*	*gakgak*

Cross grandparent terms

Dj1		W, Dj2, I		MM	
FM	FMB	FM	FMB	FM	FMB
makkah	*mamamh*	*makkah*	*makkah*	*makkah*	*mamamh*
MFZ	MF	MFZ	MF	MFZ	MF
makkah	*mamamh*	*mamamh*	*mamamh*	*mamamh*	*mamamh*

The pattern represented in the central column is typically associated with a kinship system of the Nyulnyul (Aranda) type, with a marriage prescribed between second cross-cousins. It distinguishes four grandparent 'lines' and extends these four terms to all siblings of the relevant grandparent, including those of the opposite sex: *mawah* from FF to FFZ, *kakkak* from MM to MMB, *makkah* from FM to FMB and *mamamh* from MF to MFB.

The correlation between the semantics of grandparent terms and the choice between first and second cross-cousin marriage flows from the following logic: If marriage is permitted to one's first cross-cousin (e.g. FZC), then one's FZ is also one's WM. From this it follows that one's FFZ, for example, is one's FWM = MM. This makes the use of a single term for MM and FFZ, for FF and MMB and so forth, congruent with the first cross-cousin marriage rule found in the Kariera system. On the other hand, where second cross-cousin marriage is practiced, one's WM is one's MMBD (i.e. her father is one's MMB, or *kakkak*), whereas the mother of one's first cross-cousin (i.e. one's FZ) has as her father one's FF. Terminological distinction of FF and MMB thus aids in distinguishing the mothers of one's first and second cousins. However, as Scheffler (1978) and others have pointed out, the two can be logically independent to the degree that one distinguishes categories of cousin for the purposes of reckoning marriageability, without giving them distinct terms.

Note though, that, although the grandparent terms in the middle column follow the classical Nyulnyul pattern, a glance at the terms for 'cousin' and 'spouse' in Figure 1.9 shows that we are not dealing with a prototypical Nyulnyul system:[21] the two types of cross-cousins are not clearly distinguished terminologically, since the two terms *kakkali* and *kanjok*, each

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[21]   This contrasts with the situation in languages immediately to the north, such as Iwaidja and Marrgu, which have full Nyulnyul kinship systems distinguishing first from second cross-cousins terminologically and prescribing marriage with the second cross-cousin as the most favourable.

applicable to both types, essentially depend on the degree to which the referent is a real spouse (or sibling thereof), as opposed to just someone in that broad class. This system is therefore best understood as Nyulnyul with respect to grandparent terms and marriage rules, but Kariera with respect to cousin and spouse terms.

Looking now at the left-hand column, which represents the system for some Gun-djeihmi speakers, there are still four grandparent terms, but extended on principles that are more in conformity with a Kariera system: *mawah* as 'male in parallel grandparent class', *gakkak* as 'female in parallel grandparent class', *makkah* as 'female in cross-grandparent class' and *mawah* as 'male in cross-grandparent class'. Note that the Gun-djeihmi are sociolinguistically aligned with Jawoyn people, who structure their grandparent terms in a similar way, with four categories representing the intersection of the cross vs parallel with the male vs female contrasts.

The right hand column represents the situation in Manyallaluk Mayali, which has reduced the number of grandparent terms to three by generalising *gakgak* to all parallel grandparent categories and generalising *mamamh* to all cross-grandparent categories except FM; that is, the denotational range of *makkah* has shrunk to its focal referent.

Note that, despite these differing patterns of extension, the focal values of these kin terms remain the same across dialects, except for the disappearance of *mawah* from the system in Manyallaluk Mayali. For example, *kakkak* is extended to opposite-sex siblings in W, Dj2 and I, to other parallel grandparents of the same sex in Dj1 and to all grandparents in Manyallaluk Mayali, but always includes MM as its focal referent.

It seems likely that the differences described above represent semantic convergences with the other languages with which each group has the most intensive contact and intermarriage. But a full test of this hypothesis remains to be carried out and in addition the way in which the consequences of the grandparent terminologies do or do not work their way through the rest of the kinship system remains to be studied in detail.

1.4.1.2 Modjarrkdorrinj: *the cross-cousin skewing rule*

A further complication to the kinship system comes from the operation of a Crow-style skewing rule, which reclassifies certain children in the cross-cousin category (FZC) up a generation, so that FZS (who one would expect to be called *kanjok*) is treated terminologically as a 'F' (*ngabbard*) and FZD (who one would again expect to be called *kanjok*) is treated terminologically as a 'FZ' (*berluh*). Of two people who have been skewed in this way it is said (using the Dj form): *banimodjarrkdorrinj*.
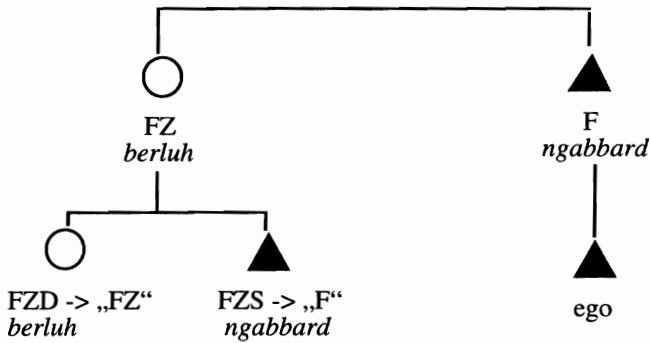
Figure 1.10: The Crow-style cross-cousin skewing rule known
as *modjarrkdorrinj*

A number of factors affect the decision whether to apply this skewing rule or not. Genealogical closeness favours its application, but there is some latitude for individual discretion and affected parties will sometimes discuss whether to apply it or not in determining their relationship. In the Gun-djeihmi dialect older speakers are more likely to apply it, younger speakers not to.

The ramifications of applying this rule introduce a complexity that lies outside the scope of this description: how subsequent generations are affected and which collateral relatives must take this rule into account in figuring their kinship relationship. By any measure the number of discretionary individual factors here makes it difficult to decide what people whose line of connection takes in such a relationship will call each other.

1.4.2 Social categories

As in many Australian societies, there are a number of higher-order social categories, basically forming a rationalised, over-arching and regionally extended summary of kinship relations, which serve to order relations between individuals and are especially useful in the contexts of ceremonies, large gatherings and meetings with strangers, as a way of extending the principles of kin-based interaction into a wider domain.

1.4.2.1 Matrimoieties and patrimoieties

The highest-order divisions are into two patrimoieties, Duwa and Yirridjdja and two matrimoieties, Mardku and Ngarradjku. One inherits patrimoiety membership from one's father and must marry into the opposite patrimoiety; likewise one inherits matrimoiety membership from one's mother and must marry into the opposite matrimoiety. Thus if my father is Duwa, so am I, as will be my children if I am a man and my brother's children if I am a woman; my mother, being of the opposite patrimoiety to my father, must be Yirridjdja and my wife must likewise be Yirridjdja. If my mother is of Mardku matrimoiety, so will I be and my sister's children if I am a man, or my own children if am a woman, but my father and my wife will both be Ngarradjku. The matrimoiety names are normally prefixed with

the noun class prefixes *na-* for men and *ngal-* for women (e.g. *Namardku* 'Mardku man', *Ngalngarradjku* 'Ngarradjku woman'). The patrimoiety names do not get prefixed. It seems that the coexistence of these two named systems is a recent phenomenon, resulting from the relatively recent adoption from eastern Arnhem Land of the Duwa/Yirridjdja system in connection with certain ceremonies; the form *Duwa* is borrowed from Yolngu *Dhuwa* and the lack of prefixes is likely to reflect recent provenance. On the other hand, the matrimoiety system appears to be of long standing in western Arnhem Land and is found throughout the Coburg region, where the Duwa/Yirridjdja system is just catching on.[22]

Because of the way in which descent and marriage correlate with the moiety systems, particular kin types map into each combination of matrimoiety x patrimoiety. From a male viewpoint, my siblings and parallel grandparents (MM and FF), for example, are all in the same combination as me; my father and my son will be in the same patrimoiety as me but the opposite matrimoiety; my wife and cross-grandparents (FM and MF) will be in the opposite matrimoiety and the opposite patrimoiety and my mother, as well as my sister's children will be in the same matrimoiety but the opposite patrimoiety.

1.4.2.2 Subsections

By combining matrimoieties and patrimoieties we thus generate four categories, normally known as 'sections', each containing groupings of certain kin. Whether one traces through one's patriline or one's matriline, there is a two generation cycle to return to one's own combination, since both MM and FF have the same value for both moiety systems as ego. These cycles of filiation are generally known as patricycles and matricycles.

In fact, no explicit recognition, in the form of directly named entities is given to sections in the study area, although section systems do exist in many other parts of Australia. (By this I mean that there is no specific set of four names for the sections, as opposed to the categories given by combining patri- and matrimoiety names).

Instead, however, there is an eightfold division into eight subsections or 'skins', known as *kun-kurlah* (Kunwinjku and Mayali), *kun-kurn* (Kuninjku) or *malkno* (Kune). This has been diffused into Arnhem Land from the south relatively recently (probably in the last couple of centuries),[23] and its origins can be traced to the fusion of two section systems several hundred kilometres to the south-west, in the Djamindjungan languages of the Victoria River district (see McConvell 1985a,b). In fact the subsection system has reached the Bininj Gun-

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22   Identical forms are found in Maung and related forms (usually in the plural and hence reduplicated) in Iwaidja: *namardgurrmardgurr* (m.)/*ngalamardgurrmardgurr*; *nangarrangarrajgu* (m.)/*ngalangarrangarrajgu* (f.) (Pym 1979). According to Harvey (1990), these forms were not found in Gaagudju. The form of the prefixes in Maung and Iwaidja suggests they are borrowed from Kunwinjku or Kunbarlang: the normal masculine and feminine prefixes in the Iwaidjan languages are *(y)i-* and *(y)iny-* respectively.

23   The dates are still unclear. Berndt and Berndt (1951b:260) say the Kunwinjku adopted the subsection system from their neighbours to the south sometime after 1912. On the other hand, the fact that the equivalent terms in Iwaidja and Maung (which must have been borrowed via Kunwinjku) undergo lenition, datable by the fact that it occurs only in the earliest Macassan loanwords, suggests a date more like the eighteenth century (Evans 1997b). In fact the Berndts were relying on Spencer's testimony in saying there were no subsections in 1912, but his informants were Gaagudju rather than Kunwinjku and the Gaagudju clearly did not make use of the subsection system (Mark Harvey pers. comm.). In any case two centuries seems a maximum time depth.

wok-speaking area in two versions: a western version, used in Gun-djeihmi and Kunwinjku as well as in the Iwaidjan languages to the northwest and an eastern version, used in Kune, Dalabon and the Yolngu languages to the east. Although the two systems are basically isomorphic, there are intriguing differences in the form and value of the subsection names which we will return to after examining the western system in detail.
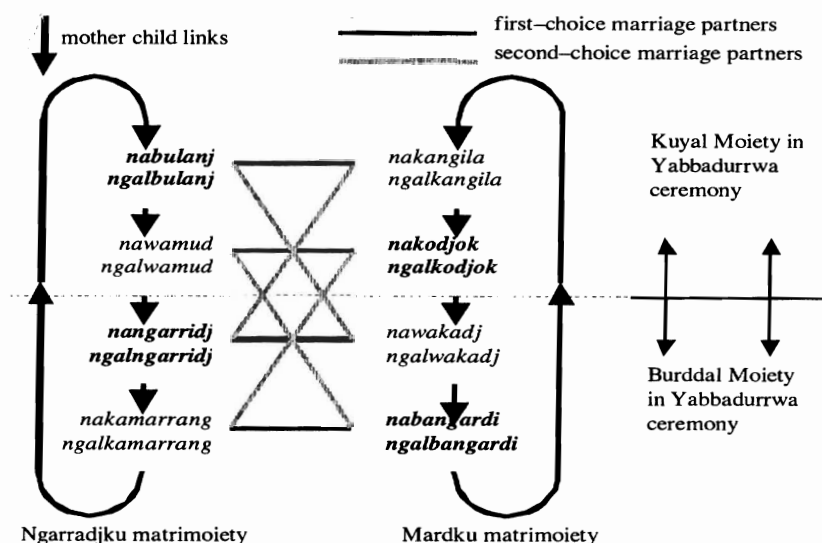
Figure 1.11: The subsection cycle (western version)

Yirridjdja subsections are shown in normal font,
Duwa subsections in **bold**.

The western version of the subsection system can be regarded as a further bisection of the section system mentioned above, such that the four-generation matricycle is divided into two two-generation stretches by a further binary division, namely the division into the so-called Kuyal and Burddal moieties that play a role in the Yabbadurrwa ceremony. This further division ensures that one is no longer in the same subsection as one's mother's mother or one's father's father; though sharing matrimoiety and patrimoiety values with these parallel grandparents, ego will differ from them in 'Yabbadurrwa moiety'.[24] This system is shown in

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24 Standard anthropological discussions of moiety systems normally discuss three types: patrimoieties, matrimoieties and generational moieties, the latter grouping even-numbered generations (e.g. ego, FF, SS, MM, DD) against odd-numbered generations (F, FFF, S, SSS, M, MMM etc.). Moieties of the type described here (originally described for Kuninjku in Garde 1993) were labelled 'ceremonial moieties' by Maddock (1969) in connection with Dalabon, but this term is insufficiently precise, since other moiety oppositions also play a role in ceremonial organisation. A useful descriptive term would be 'matricouple' (or 'patricouple') moiety, given that it groups four-generation matricycles into two two-generation stretches or matricouples. For the moment, however, I just use the term 'Yabbadurrwa moiety'. It appears that 'Yabbadurrwa moieties' arose by borrowing just two of the four sections used in the Roper River, namely

Figure 1.1. Note the existence of paired male and female terms distinguished by the prefixation of *na-* (male) vs *ngal-* (female) and the fact that each subsection has two possible subsections from which they can draw their spouse; first-choice spouses are shown by solid lines (which run horizontally) and second-choice spouses by lines (running diagonally).

First note that the system is basically matrilineal, in that one's subsection is determined by one's mother's. In the ideal case, where everyone marries their first-choice partner (e.g. *nangarridj* men all marry *ngalwakadj* women and *ngalngarridj* women all marry *nawakadj* men), then one could phrase the descent rule as '*nakamarrang/ngalkamarrang* are the children of *nawakadj* men' as well as '*nakamarrang/ngalkamarang* are the children of *ngalngarridj* women'. However, when deviations from the ideal occur, it becomes clear that it is the mother who determines subsection membership. If a *ngalngarridj* woman, for example, marries her second-choice husband, namely a *nakangila* man, the children are still *nakamarrang/ngalkamarrang* rather than *nawamud/ngalwamud* and in the case of irregular unions it is again the mother's subsection membership that determines the child's.[25]

As a consequence of this, the subsection membership of relatives through the male line is determined by alternating matrifilial and marriage links in the above chart: the normal subsection for the father of a *nakamarrang* ego, for example, is found by tracing up to ego's mother (*ngalngarridj*), then, should the marriage be first-choice, across to *nawakadj*; should the marriage be second-choice, the father will be *nakangila*, traced via the diagonal second-choice marriage link. Should ego's father have been a *nawakadj* man born to a first-choice union, repeating this logic ego's father's father will be *nawamud* (that is, *nawakadj*'s mother is *ngalkodjok*, whose first-choice spouse is *nawamud*) and therefore in a different subsection to ego. In fact one finds a secondary four-subsection patricycle (here, *nakangila*, *nawamud*, *nawakadj*, *nakamarrang*, to give the patricycle that descends through the Yirridjdja patrimoiety) provided that only first-choice unions are made, though this is not generally articulated as a structural principle.

If a mixture of first- and second-choice unions is made, there is an earlier return to ego's subsection through patrifilial links. Should a *nakamarrang* ego's *nawakadj* father have been born to a second-choice union, ego's father's father will be *nakamarrang* like himself (located by taking the second-choice partner of a *ngalkodjok* woman) and should ego's father be a *nakangila* born to a second-choice union, ego's father will be a *nawamud* (the second-choice partner of *ngalbangardi*, the mother of *nakangila*).

Overall though, as long as only first- and second-choice marriages occur, ego's father's father will be in either his own subsection (here, *nakamarrang*) or the subsection two generations up his matriline (here, *nawamud*). Another way of saying this is that ego's father's father will always share his matrimoiety and patrimoiety (as outlined above in our discussion of sections) but may be in the same or opposite Yabbadurrwa moiety depending on which marriages occurred.

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those associated with the Kunapipi ceremony. Maddock (1969) documents the adoption of all four sections at Beswick in the 1960s, with two associated with the Duwa patrimoiety and two with Yirridjdja. But with the wider diffusion of two of these terms northward the links with the section system appear to have been broken.

[25]   However, for the purposes of certain rituals in which patrimoiety membership is important, the child may have a second subsection derived from the father's.

Each subsection has a different combined value for the combination of three binary features generated by the three moiety systems (for convenience only the male forms are shown in Table 1.5).

Table 1.5: Western subsections as combinations of three moiety values

	Kuyal		Burddal	
	Duwa	Yirridjdja	Duwa	Yirridjdja
Ngarradjku	*nabulanj*	*nawamud*	*nangarridj*	*nakamarrang*
Mardku	*nakodjok*	*nakangila*	*nabangardi*	*nawakadj*

These moiety oppositions have a number of social functions. In different ceremonies different moiety systems serve as principles for grouping participants and determining their roles: Duwa vs Yirridjdja in the Kunapipi, for example and Kuyal vs Burddal in the Yabbudurrwa. Patrimoieties are (now) associated with particular clans, countries and sites, though this is likely to be a relatively recent cultural introduction from eastern Arnhem Land. Both patrimoieties and matrimoieties are associated with the classification of plant species, with a tendency for younger and more easterly speakers to invoke the patrimoiety system and older and more westerly speakers to invoke the matrimoiety system (see §1.4.2.4 below). Moiety oppositions can also be used to describe the choice of partner: both first-choice and second-choice spouses are opposite patri- and matrimoiety, but while the first-choice spouse is of the same Yabbadurrwa moiety, the second choice is of the opposite Yabbadurrwa moiety.

The eastern system, variations on which are found in Dalabon, Rembarrnga and across into the Yolngu languages, embodies a basically similar design to the western system, from which it can be generated by applying a number of transformative principles.[26] The first step in doing this is to hold constant the sociocentric values (the values on the three moiety oppositions), since these have a much wider regional reference than any particular set of subsection terms and ask what skin names instantiate each combination. We then find the system given in Table 1.6 (again with only the male terms for the moment).

Table 1.6: Eastern subsections as combinations of three moiety values

	Kuyal		Burddal	
	Duwa	Yirridjdja	Duwa	Yirridjdja
Ngarradjku	*kela*	*kodjok*	*balang*	*bangardi*
Mardku	*wamud*	*bulanj*	*kamarrang*	*ngarridj*

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[26] This is a synchronic claim only and moreover one that arbitrarily starts from a western perspective. The question of which historical steps produced these correspondences and whether the original system was of the western, the eastern or some third type, would lead us too far astray here; Patrick McConvell is currently pursuing this issue. It is worth pointing out, however, that there are structural parallels between the eastern system and the set-up McConvell (1985a) suggests generated the subsection system in the first place, namely the superimposition on a section system (here implicit in the existence of the patri- and matrimoiety systems) of a further division within which half the marrying pairs are endogamous and half are exogamous (see remarks below).

First consider the forms. Notice that all but one of the terms are drawn from the same set of roots as the western system (by removing the *na-* prefix and contracting *kangila* to *kela*), the only non-cognate members being *balang* (in the eastern system) and *wakadj* (in the western system).

The feminine forms of the eastern skin names, shown under the masculine terms in Table 1.7, basically add *-djan* to these roots, with some contractions and assimilations. The *-djan* suffix suggests this system passed through Dalabon on its way into Bininj Gun-wok, since *-djan* is a feminine suffix on some kin terms in Dalabon,[27] but in every other language is restricted to subsection terms.

Table 1.7: Male and female terms in the eastern system

	Kuyal		Burddal	
	Duwa	Yirridjdja	Duwa	Yirridjdja
Ngarradjku	*kela*	*kodjok*	*balang*	*bangardi*
	kalidjan	*kodjdjan*	*belinj*	*bangardidjan*
				(E *bangvrn*)[28]
Mardku	*wamud*	*bulanj*	*kamarrang*	*ngarridj*
	wamuddjan	*bulanjdjan*	*kamanj*	*ngarridjdjan*
			(~*kamanjdjan*)[29]	

Now consider the position of particular forms in the system. It is clear, through a comparison of Tables 1.5 and 1.6, that every cognate root has the same Yabbudurrwa moiety value in the eastern and western systems, but the opposite value for the other two moiety systems. For example, *nawamud* (western system) is Kuyal, Yirridjdja and Ngarradjku, while *wamud* (eastern system) is Kuyal, Duwa and Mardku. Another way of saying this is that, in converting from the western to the eastern system, one uses the root that designates the category of one's first-choice spouse (treating *balang* and *wakadj* as suppletive root-equivalents); I shall refer to this transformative property as 'spouse-swap'.

We can now display the eastern system in terms of the conventions used in Table 1.6 above and placing the eastern forms in the positions that correspond to the values given by their three moieties (see Figure 1.12).

Because of 'spouse swap' and because first-choice spouses in the western system occupy the directly facing position on the opposite matricycle, the roots have simply traded places on the diagram. However, there is a complication: the eastern system also differs on the matter of preferred spouse, so that only two pairs (*balang* – *ngarridj* and *kela* – *bulanj*) now marry directly opposite. The preferred marriage of the other two pairs is exchanged, giving the new pairs *kamarrang* – *kodjok* and *bangardi* – *wamud*, for which the bold, first-choice marriage

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[27]   Examples are *winjkvn* '(woman's) daughter's son', *winjkvndjan* '(woman's) daughter's daughter', *wulkvn* 'younger brother', *wulkvndjan* 'younger sister', *be* '(man's) son', *bedjan* '(man's) daughter'.

[28]   *Bangvrn*, used in Kune, appears to be a loan from Dalabon or Rembarrnga, which have identical forms; some speakers replace the high central vowel, restricted to loanwords in Kune phonology, with *u*.

[29]   I have not heard this form, but it is listed as a variant in Etherington and Etherington (1994:12).

lines now run diagonally.[30] These 'diagonal' pairs now marry out of their Yabbadurrwa moiety, while the 'horizontals' continue to marry within it.
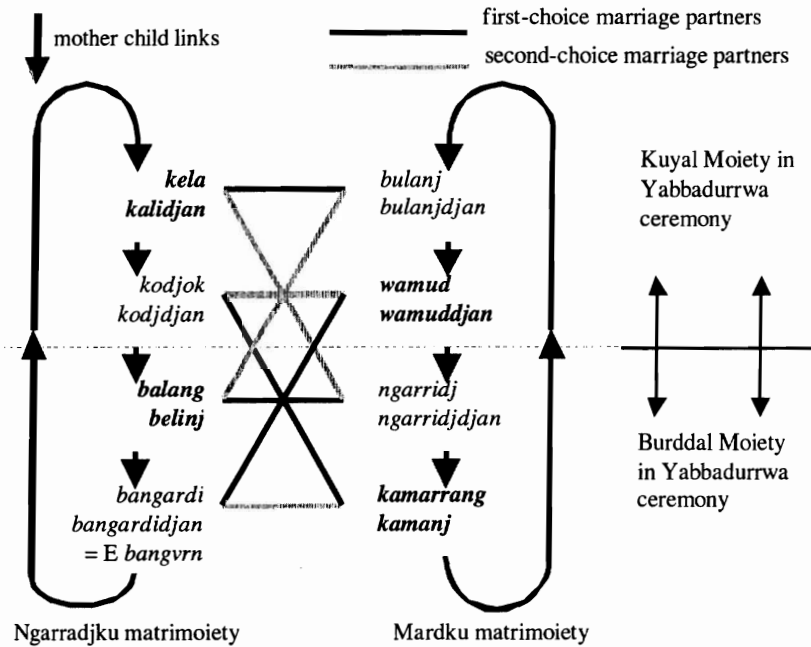
Figure 1.12: The subsection cycle (eastern version)

Yirridjdja subsections are shown in normal font,
Duwa subsections in **bold**.

This suggests a different display mode: to display all first-choice marriages by horizontal lines, we need only reverse the direction of one of the matricycles in the display (and adjust our placement of the Kuyal/Burddal labels). This notational variant is shown in Figure 1.13. The display mode in Figure 1.13 de-emphasises the difference in marriage preferences and stresses two other structural differences. First is the fact, mentioned above, that half the marriage pairs are exogamous and half endogamous with respect to the Kuyal–Burddal system (for example *bangardi–wamud*, which marries a Burddal to a Kuyal, is exogamous, whereas *balang–ngarridj*, which marries a Burddal to a Burddal, is endogamous).

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30 This is true for Kune and Kuninjku. Preliminary data from Manyallaluk Mayali, which employs the eastern subsection terms, suggests that two pairs have a clear choice of preferred spouse (*gamarrang–godjok* and *wamud–bangvrn*), while there are two equally preferred options for the other two pairs (that is, *ngarridj* and *bulanj* are both equally good spouses for *gela* and *balang*). This situation requires further research.

Second is the fact that, as a consequence of the matricycles running in opposite directions, one is now in the same subsection as one's father's father if the relevant marriages are first-choice: on this assumption, for example, Bangardi's father would be a Ngarridj; Ngarridj's mother would then be a Wamuddjan and marry a Bangardi. The placement, in the ideal situation, of ego and his FF in the same subsection is characteristic of Central Australian subsection systems such as Warlpiri; in such systems members of a patriline alternate between pairs of subsections known as patricouples. The pair Bangardi–Ngarridj, just mentioned, would be an example: Ego, his FF and his SS, would all be Bangardi, whereas ego's F, FFF, S and SSS would all be Ngarridj.
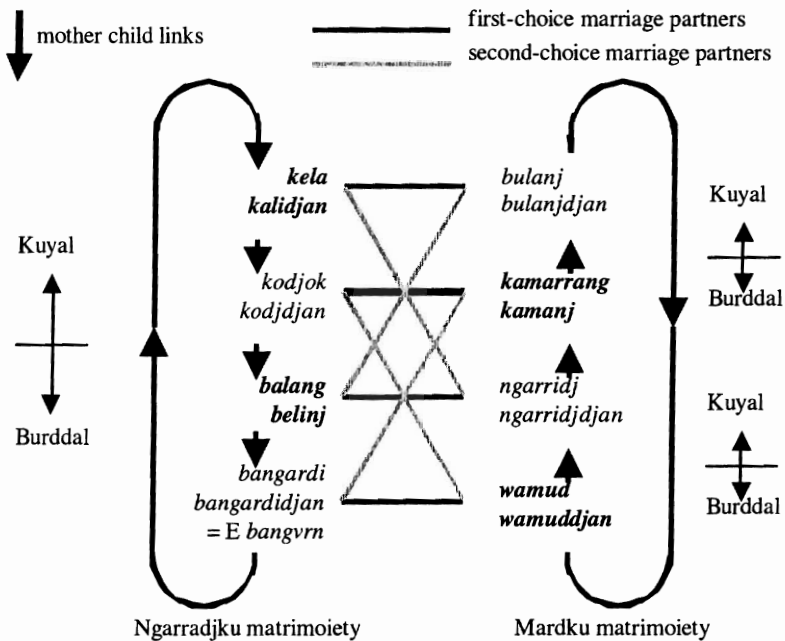
Figure 1.13: The subsection cycle (eastern version; display mode 2)

Yirridjdja subsections are shown in normal font,
Duwa subsections in **bold**.

In ordinary speech, the commonest way of referring to individuals is to give their subsection. This achieves an eightfold reduction, with respect to knowing nothing, of the set of possible referents and obviously is insufficiently precise for foolproof identification, though in context it is usually sufficient. In Text 7, for example, the speaker begins 'this afternoon Kodjdjan gathered plants …'; in this context only one Kodjdjan had taken part in the expedition (she happened to be the speaker's wife), so the term identified her uniquely as long as one knew the universe of immediate discourse. In other situations, of course, the

subsection name may be insufficiently precise and may be supplemented by further descriptors such as clan names and nicknames (see §1.5.3 below) though high levels of vagueness are often tolerated by the hearer. Finding out someone's subsection is an essential early step in making new acquaintances (see 7.61 for examples of appropriate questions) and allows them to be classified as kin (e.g. a Bangardi man, meeting a Kodjok man, would normally then classify him as *kakkak* 'MM' and vice-versa), though this may be over-ridden by actual genealogical connections if these are subsequently discovered.

Children master the subsection system from an early age. A popular children's game involves one player calling out the subsection name of another, who must respond instantly by calling out the skin name of the subsection that is in the *kakkak* relation to them. For example, if I am *bangardi* skin, someone will call *bangardi!* to me and I have to call back *kodjok!* as quickly as possible.

1.4.2.3 Matrilineal phratries

Widespread in the region from Cobourg Peninsula to the escarpment is a system of named exogamous groups, membership in which is inherited matrilineally, known in Mayali as *gun-djungunj*. The exact number of these varies from group to group and analyst to analyst; the early witness of Earl (1842:240–241) lists only three terms for the Cobourg Peninsula area; Berndt and Berndt (1970a:65) say there are only four 'truly Gunwinggu' subdivisions, Maddock (1965:40) found six at Beswick and Chaloupka et al. (1985) argue for eight in the Mayali-speaking region, but another analysis of their data suggests there are six.[31] The Berndts propose the term 'phratries' for these groups and although it represents a deviation from the original meaning of that technical term, I adopt it here for want of anything better.

Unlike the matrimoieties, the phratries do not form a closed set but rather a collection of grouped matrilineal descent groups, with the content of the collection varying according to the social universe under consideration. The basic principle of organisation extends out from the Cobourg Peninsula south-eastwards into the Arnhem Land escarpment; as the system extends from its original region more and more new phratry names are brought in to supplement the original set of three or four. Phratry names all begin with the prefix *yarri-*,[32] which is not an attested prefix in any language of the region (unlike the matrimoiety terms, whose *na-/ngal-* prefixes suggest an origin in Bininj Gun-wok or Kunbarlang), so that the question of the original language in which the system was developed remains a mystery.

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[31] The difference results from their postulation of two extra phratries achieved by subdividing *yarriburrik* and *an-djarrabuma* into two each, on the grounds that each of these occurs in both matrimoieties. However, if one regards the matrimoiety and phratry systems as independent this becomes unnecessary, since there is no logical requirement that a given phratry be associated only with one matrimoiety (see the discussion of plant classification below). A further reason for not subdividing these phratries is that, regardless of matrimoiety association, they have the same 'symbols' – *gunak* 'fire' for *yarriburrik* and *gukku* 'water' for *andjarrabuma*; their subdivisions into the *djungunj* categories *nabininj goyek* and *nabininj garri* are also identical: respectively *donggorlmirrimirri* 'hot coal from ironwood tree' and *djanggogo* 'fine ash from firestick' for *yarriburrik* and *gerralkgen* 'gentle rain from the east' and *balmarradjdja* 'heavy monsoonal rain' for *andjarrabuma*.

[32] Unless one seeks to relate it to the first person inclusive augmented prefix *yirri-* in Gun-dedjnjenghmi, on the grounds that in self-identifying group statements it is natural to use the first inclusive (we fire people etc.).

Forms of four of the phratry names are comparable between Amurdak, Garig, Gaagudju, Iwaidja, Kunwinjku, Mayali and Dalabon (see list in Harvey 1990:43). Many of the 'signs' for phratries are semantically equivalent across languages (e.g. Iwaidja *manyij* 'sun' and Bininj Gun-wok *kun-dung* 'sun' for the Yarriyarninj phratry). Other phratries appear to have been named by using new words from the local language as symbols of the phratry and then extending them to become the actual names of the phratry.

Phratry names and their associated 'signs' for Iwaidja, Kunwinjku, Mayali and Dalabon are given in Table 1.8.

Table 1.8: Phratry names and their associated 'signs'

Iwaidja	Kunwinjku	Mayali	Beswick (Maddock)
yarri-yarniny: *manyij* 'sun'	*yarri-yarninj:* *kun-dung* 'sun'	*yarri-yarninj:* *gun-dung* 'sun'	*jari-ja:nin:* *gun-dung* 'sun'
yarri-wurlgarr: *murrhala* 'pandanus'	*yarri-wurrkal:* *kukku* 'water' *man-belk* 'pandanus'	*yarri-wurrgan:* *gabo* 'green ant'	*jari-wulga:* *gabo* 'green ant'
yarri- wurrik: *gujali* 'fire'	*yarri-burrik:* *kunak* 'fire'	*yarri-burrik:* *gunak* 'fire'	*jari-burag:* *gunag* 'fire'
yarri-garn.gurrg: *wartyad* 'rock', *ubaj* 'rain'	*yarri-karnkurrk:* *kun-warde* 'rock'	*yarri-garn.gurrk:* *gun-warde* 'rock'	*jari-gangangulg:* *gun-wadi* 'rock', *gugu* 'water'
		na-walganj: *nabiwo* 'groundbee'	*nabiwo:* *nabiwo* 'sugarbag bee'
		an-djarrabuma: *gukku* 'water'	
	djoned: *djoned* 'march fly'		
			wurumbulu: *gunmudgu* 'plains kangaroo'

Each of these phratries is, in the escarpment groups, subdivided further on the basis of locality. Maddock (1965:40), who worked at Beswick, gives two: *nabininjgarri* (spelt by him *nabininggari*), associated with the western groups Mayali and Jawoyn and *nabininjbulgai* (spelt by him *nabiningbulgai*), associated with the eastern groups Djinba, Kune and Rembarrnga; Dalabon straddles the distinction. Chaloupka et al. (1985:64ff.) add a third group: *nabininjgoyek*; on this system the easternmost groups are *nabininjgoyek* (lit. masculine-person-east), the central groups are *nabininjbulgai* and the western groups are *nabininjgarri* (lit. masculine-person-high.country). In either system, the eastern and western groups each have their own variant of the *gun-djungunj* sign, formed on the principle that the *nabininjX* sign should be semantically associated with the main phratry sign, but with the further characteristic that the western sign should be small and fine and the eastern sign large and coarse. The signs for the *nabininjgarri-djungunj* and *nabininjgoyek-djungunj* in Mayali, retranscribed from Chaloupka et al. (1985: 68–69) are given in Table 1.9.

Table 1.9: Signs for the *nabininjgarri-djungunj* and *nabininjgoyek-djungunj* in Mayali

Yarriyarninj	*gun-dung*	'sun'
nabininjgarri	*gard*	'small spider, spreading web through grass in the early dry, dew laden in the mornings', represents *andungbolabola* 'cool sun'
nabininjgoyek	*garrawadjdji*	'funnel web spider' representing *an-dung-bahbang* 'hot sun'
Yarriwurrgarn	*gabo*	'green ant'
nabininjgarri	*garrnggilelh*	'small green ant, lives in pandanus'
nabininjgoyek	*wardjarrarrg* [33]	'large green ant'
Yarriburrik	*gunak*	'fire'
nabininjgarri	*djanggogo*	'fine ash from *gun-djahgorl* (fire stick)'
nabininjgoyek	*donggorlmirrimirri*	'hot coal from *an-dubang* (ironwood tree)'
Yarrigarn.gurrk	*gunwarde*	'rock, stone'
nabininjgarri	*bilembil*	'quartz'
nabininjgoyek	*birdurrk*	'orthoquartzite, used for spearheads'
Nawalganj	*nabiwo*	'ground-nesting native bee'
nabininjgarri	*birdigelk*	'soft beeswax nest'
nabininjgoyek	*birdirayek*	'hard beeswax nest'
Andjarrabuma	*gukku*	'water'
nabininjgarri	*balmarradja*	'heavy monsoonal rain'
nabininjgoyek	*gerralkgen*	'gentle rain from the east'[34]

1.4.2.4 Moieties, phratries and ethnoclassification

Apart from their role as higher-level social categories, moieties and phratries provided a framework for classifying the phenomena of the natural world. The growing prominence of the patrimoiety system spreading from the east, at the expense of the indigenous western Arnhem Land systems of matrimoieties and phratries, means that speakers in different locations and of different ages frame these classificatory principles in different ways. Informal observation suggests that in the eastern areas, where the Duwa–Yirridjda system has become most deeply embedded, people give category affiliations exclusively in terms of Duwa and Yirridjja and knowledgeable adults are able to give the patrimoiety affiliations of most plants and animals. But in the western areas, such as Gun-djeihmi, the patrilineally and matrilineally oriented systems coexist — at least in the 1980s when systematic research was carried out by two sets of investigators.

Chaloupka and Giuliani (1984), in their discussion of Mayali ethnoclassification, give matrimoiety and phratry names for most of the plant species they list and on pages 24–27

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[33] I was unable to verify this word and retain Chaloupka et al.'s transcription.

[34] These signs do not coincide with the usual proportion *nabininjgoyek*: coarse, large :: *nabininjgarri*: fine, small. In this case it seems the direct geographical associations of the weather types – particularly the source of the gentle rain in the east – overrides the other proportion.

discuss the factors governing matrimoiety and phratry assignment to plants, which I summarise here. Note that in some instances these assignments distinguish distinctly named taxa (by the Linnean and/or Mayali taxonomic systems) felt to be opposed; in other cases they distinguish species receiving the same name in Mayali but differently classified by the Linnean system and in other cases again they simply distinguish varieties or specimens of the same Mayali and Linnean taxon.

The classificatory criteria are complex and often take into account morphological oppositions (e.g. white flowers for *mardgu* vs red flowers for *ngarradjgu*, tall and straight for *mardgu* vs low and spreading for *ngarradjgu*, long leaf for *mardgu* vs short leaf for *ngarradjgu*, thin-stemmed for *mardgu* vs thick-stemmed for *ngarradjgu*). For example, thin-stemmed specimens of *mangalarreh* (*leptocarpus spathaceus*) are *mardgu*, while thick-stemmed specimens are *ngarradjgu*. Other factors influencing classification are landscape/ habitat association, seasonality, and association with animals or species of determinate affiliation; an example of this last factor is *an-njilinjbirrk* (*hibbertia oblongata*), which is of the *mardgu* moiety and *yarri-garngurrk* semi-moiety 'as this is the social affiliation of [*al-wanjdjuk*], the emus, who feed on its flowers' (Chaloupka & Giuliani 1984:27).

In determining phratry membership, strong associations with elements used as symbols for the phratries are also important; the shrub *gurndun*, whose fruiting is said to require lots of water to bring about, is assigned to *an-djarrabuma* phratry, whose symbol is *gukku* 'water'.

Often the classification of a plant species does not depend on absolute criteria, but on the nature of some minimal opposition between sister taxa. Consider two subspecies of *grevillea heliosperma,* the lowland form *an-djen.gererr* and the highland form *an-bardbard*. Now the landscape of the *garrigad* 'high country' is *mardgu* moiety and *yarriburrik* phratry (symbolised by *gunak* 'fire') and that of the *ganjdjiganjdji* 'lowlands' is *ngarradjgu* moiety and *andjarrabuma* phratry (symbolised by *gukku* 'water'). These landscape affiliations are transferred to the plants that live there, so that lowland *an-djen.gererr* is *ngarradjgu* and highland *an-bardbard* is *mardgu*. However, the two subspecies are assigned to the same phratry, *yarriburrik* (whose symbol is *gunak* 'fire'), 'perhaps because its timber is used as firewood producing good, long lasting coal' (p.25).

As some of these examples show, the phratry terms do not behave as subdivisions of the moieties for purposes of plant classification — if that were so it should be impossible for two plants of opposed phratries to have the same matrimoiety, or vice versa. Rather, classification by matrimoiety and classification by phratry appear to proceed independently, on the basis of different criteria. One criterion (say their use as firewood in the case of the two grevillea subspecies discussed above) may group the two together under the same phratry (in this case *yarriburrik*), while another criterion — the opposition between highland and lowland environments — may assign them to opposite matrimoieties.

Turning now to patrimoiety affiliations, as mentioned this is the sole basis for classification among the Kune and other eastern Kunwinjku-speaking clans; the list of plant names in Altman (1981), gives only patrimoiety affiliations. However, patrimoiety-based classifications are also employed by Mayali speakers, as witnessed by the fact that the lists of Mayali plant names compiled by Russell-Smith (1985) a few years after the survey by

Chaloupka and Giuliani (1984) gives only patrimoiety affiliations, where Chaloupka and Giuliani give matrimoiety and phratry affiliations.[35]

The overall principles that Russell-Smith found for assigning plant species to patrimoieties are almost identical to those assigning them to matrimoieties and phratries:

> Apart from the situation where plants are ascribed skin names on the basis of connections with creation stories, ceremonies and so on, there are ... general rules which may be applied to determine whether a plant taxon belongs to one moiety of the other ... It is to be emphasised ... that, as this is a relative system which requires a broad knowledge of plant morphologies, usages, habitats and the like (as well as a firm grounding in Aboriginal mythology), it is not possible (usually) to say that plants with long leaves are Yirritja and those with short leaves are Duwa. Rather, where there are two taxa with recognised similar properties (e.g. two morphologically similar species), the taxon with the longer leaf may be identified as Yirritja and the taxon with the smaller leaf, Duwa. (Russell-Smith 1985:245)

Russell-Smith goes on to give diagrams showing that compared to Duwa, Yirridjdja leaves are longer, with more reticulated leaf venation, narrower and have narrower veins; Duwa species have thorns. The similarities to the matrimoiety criteria discussed above are striking and raise the question of whether the same morphological criteria have simply been given the new duty of assigning patrimoieties.

1.5 Sociolinguistic issues

Speakers of Bininj Gun-wok have at their disposal a rich set of sociolinguistic choices. To begin with, there are the complex regional variations in dialect, ranging from the broad dialect groups to vocabulary which is specific to clan lects, as discussed in §1.3. Most speakers have knowledge of more than one regional variant and switch between these for various purposes such as greeting etiquette (acknowledging someone's clan origin, or the fact that one is a guest on a particular clan's land, but opening a conversation with that variety), social alignment, humour and quotation.

There are then a number of register choices reflecting kinship relations between speaker, hearer, bystander and referent. In the public domain, the three most important deviations from the unmarked register or Kun-wok-duninj 'proper/real language' are:

(a) the use of a special polite register, known as *Kun-kurrng, Kun-balak* or *ngarrimikme* (§1.5.1), involving near-complete lexical replacement, between or in the presence of certain categories of relative. The relationship categories requiring this are prototypically a man and his wife's mother or wife's mother's brother, that is, between people who call themselves *na-/ngal-kurrng* on the basis of an actual affinal relationship.

(b) the use, between adults and as a form of polished etiquette, of a special set of kinship terms, known as *Kun-derbi, Kun-derbuy* or *Gun-dembui*, which identify referents by their kinship relationship to both speaker and hearer simultaneously (§1.5.2).

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[35] I imply above that this results from a recent shift to patrilineal-based classification. But there are other possible explanations consistent with both systems operating at once: the affiliations may have been given in reply to different questions by the investigators, or taking into account the different age of the investigators or the fact that Giuliani is female. Further research is needed to resolve this.

(c)   the use, between potential rather than actual affines (also calling each other *na-/ngal-kurrng*) of a form of ritualised joking obscenity. This is discussed in detail in Garde (1995), who shows that both (a) and (c) are used between people calling themselves *na-/ngal-kurrng* and that (c), like (a), can be referred to as *Kun-kurrng*, with the choice between respectful and joking styles being determined by whether the son-in-law/mother's brother-in-law relationship is actual or fictive.

In addition to these, there are a number of other types of register variation: song language (not discussed further here, but a tape produced by Bawinanga Aboriginal Corporation contains an interesting collection of transcribed song texts with commentary), ritual language (not discussed here owing to its secret/sacred nature), baby talk and public harangue. Murray Garde is currently preparing a detailed ethnography of communication for Kuninjku.

In addition to register choices, there are complex conventions governing naming and reference to individuals. These are touched on briefly in §1.5.3.

1.5.1 *The respect register* Kun-kurrng

Between certain relatives, prototypically a son-in-law and his mother-in-law or her brother (a relationship known in Aboriginal English as '(poison) cousin'[36]), various forms of avoidance, both behavioural and linguistic, are practised. Eyes should be mutually averted and a man should hand 'his mother-in-law her share of his recent kill in his left hand, with that wrist clasped in his right hand' (Harris 1970:783). Linguistically, such avoidance is manifested by the use of a special register known variously as *Kun-kurrng*, *Kun-balak* or (in Gun-djeihmi) *arri-mikme*. Kun-kurrng is the neuter form of the root √*kurrng* found in *nakurrng* 'son-in-law; mother-in-law's brother' and *ngalkurrng* 'mother-in-law'; √*balak* is found in the verb √*balakbun* 'bestow daughter';[37] and *arrimikme* is a deverbal form which means '(the way) we practice avoidance'. 'Ordinary language', by contrast (often called 'outside talk' in Aboriginal English), is referred to as *kun-wok-duninj* 'proper talk'. There are discussions of *Kun-kurrng* in Harris (1970), Manakgu and Djayhgurrnga (1985) and Garde (1995).[38]

This prototypical function, of being used between certain types of relatives, is not the only context in which Kun-kurrng is used. It is also employed by widows during their period of mourning, who during these periods attain great fluency in it; in fact much of my data on the Gun-djeihmi variety was gathered from one such widow. It can furnish replacements for tabooed vocabulary items: Murray Garde (pers. comm.) observed a case where, following the death of a man called Billy, the word *bilikkan* 'billycan' was temporarily tabooed and replaced with the Kun-kurrng word *mambard* (which also happens to be the ordinary-language word in Dalabon). Sometimes it is used as a form of politeness when making requests, or to conceal the content of speech from those presumed to understand the everyday register but not Kun-kurrng.

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36   Manakgu and Djayhgurrnga's account of Oenpelli Kunwinjku includes as 'poison cousins', 'mother's uncle's children' and 'father's mother's children'; both can marry ego's children.

37   And in Ngalakan the free form *balak* means 'MMBC, MMBSSC'.

38   For discussions of similar registers elsewhere in Australia see Dixon (1971), Goddard (1992), Haviland (1979), McConvell (1982), McGregor (1989) and Rumsey (1982), as well as Dixon (1990) on the etymological origins of special respect vocabulary in Dyirbal.

In Manyallaluk Mayali, the sociolinguistic conditions on the use of Kun-kurrng are different, even though the vocabulary is essentially identical; as in Dalabon, it is used when referring to, rather than in the presence of, relatives who are *nakurrng* or *ngalkurrng*.

Acquiring Kun-kurrng takes some time and even in the most traditional areas it is said not to be mastered until one's twenties. (The Kuninjku-speaking areas appear to have maintained the Kun-kurrng tradition the most, so that examples drawn on below are from the Kuninjku variety unless otherwise mentioned.) There is concern in less traditional areas that even though children are acquiring the ordinary language they do not learn Kun-kurrng or Kun-derbi properly, and there are movements in Oenpelli to arrest this decline by teaching it more formally (which was the main purpose of the Manakgu texts mentioned above). Nonetheless, even in areas such as Kakadu where younger speakers do not have a full command of the ordinary register, people in their thirties know a certain amount. It appears to be acquired gradually, with spurts during periods of widowhood of one's close female relatives and partly assisted by formal teaching of everyday and *kun-kurrng* equivalents. Essentially the same register is spoken throughout the dialect chain, though there are minor dialectal variations, often involving the use of 'ordinary language' translation equivalents or near equivalents from another dialect.[39]

Structurally, Kun-kurrng involves replacing all open-class vocabulary. Most grammatical affixes and closed-class items like pronouns and ignoratives are left unchanged (and unlike in some other avoidance registers reported in Australia, second person pronouns remain in the singular), but there are some exceptions. Imperatives are avoided and replaced by non-past declaratives. The privative suffix *-yak* is replaced by the postposition *-yagúra*, the negative interjection (*gayakki* in Gun-djeihmi and Kune, *burrkyak* in Kunwinjku) is replaced by *gayagura*, the word *ayed* or *baleh* 'where' is sometimes replaced by the locative-prefixed form of the (ordinary language) root *ngale* 'who' and the negative imperative particle (*bayun* in Gun-djeihmi, *yuw(u)n* in Kunwinjku and Kuninjku) is replaced by *morndin*,[40] as in the following sentence in the Gun-djeihmi variety (ordinary language translation underneath):

1.19	*Morndin*	*gan-weibu-n*	*an-ngoni*	*gun-gundam,*	*gun-gundam-bulalh*
Dj	*Bayun*	*gan-wo-n*	*na-gudji*	*gun-bid,*	*gun-bid-bogen*
	don't	2/1-give-NP	VE/MA[41]-one	IV-hand	IV-hand-two

yi-walebonghme.
yi-garrme.
2-holdNP
'Don't hold (things) in one hand, hold them in two hands!' (when giving to your mother-in-law)

A sample dialogue in the Gun-djeihmi version, with the ordinary language equivalent underneath, is given below:

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[39]   See Haviland (1979).

[40]   In Gun-gurrng the derivation of the negative imperative particle from the verb 'stay, lie' is obvious; *morndin* is actually the imperative of this verb (and constitutes an exception to the non-use of imperative verb morphology in Gun-gurrng). The Kunwinjku negative imperative particle *yuwun* probably derives historically from a similar source, namely the imperative of 'lie'.

[41]   Interestingly, different patterns of gender agreement are employed here: the more conservative vegetable gender agreement is used in the polite register and the more innovative masculine agreement (an option with modifying 'one') in the everyday variety. See §5.5.5 on alternative agreement patterns.

1.20 A: *Gun-mulbui yi-walebonghme?*   B: *Gayagura.*
     Gun-ganj   yi-garrme?   *Gayakki.*
     IV-meat   2-haveNP   nothing
     'You got any meat?'   'No, nothing.'

  A: *An-manjyakku?*   B: *Lerra.*
     An-yahwurd   *Larrk.*
     VE-little   nothing.at.all
     'Just a little?'   'No, nothing at all.'

  B: *Barri-dogang   gabarri-rombehme.   Gare   gabarri-ngalbonghge,*
     Barri-wam   gabarri-djanggan.   Gare   gabarri-ngalge,
     3aP-goPP   3a-huntNP   maybe   3a-findNP

     arri-murnáme   nguddangge, milbabba   yi-m-warnduihme.
     arri-mang   nguddangge   malaiwi   yi-m-rai.
     1a-getNP   your   tomorrow   2-hither-goNP/IMP
     'They've gone hunting. If they find something, we'll save some for you.
     Come back tomorrow.'

  A: *Wanjh,   yi-modme.*   B: *Ngundi-marne-murname.*
     Wanjh,   yi-ma.   *Ngundi-marne-mang.*
     right   2-getNP/IMP   1a/2-BEN-getNP
     'Well, get some them.'   'We'll save some for you.'

Phonologically, there are sufficient differences between Kun-kurrng and ordinary language that one can 'pick it' without understanding it. These involve: (a) a more sing-song intonation (b) a greater proportion of open syllables — where these are stressed this results in phonetically lengthened vowels in positions unusual for ordinary language (e.g. *kayakúra* [gajɐgúːɾɐ] 'nothing'; (c) a large number of polysyllabic nominal roots which receive penultimate stress (e.g. *na-birdídjdji* 'boy'), this is outside the normal pattern of stress assignment; and (d) words are longer on average which is probably a universal of polite registers, indexing the effort the speaker is devoting to being polite.

A short sample text in this register features as Text 11.

1.5.1.1 Formal correspondences between Kun-kurrng and everyday lexemes

The basic tendency, as illustrated by the above examples, is for all lexical roots to be replaced with distinctive Kun-kurrng roots. Most closed-class items, such as pronouns or conjunctions, do not change in Kun-kurrng. In this section we look at the structural parallels between synonymous words in Kun-kurrng (k.k.) and the everyday register (o.l.), while in the next we examine the semantic relationships between lexemes in the two registers.

Most affixal material is also left unchanged, including the many adverbial elements in the verb, discussed in Chapter 11; for example, o.l. *burlurr-yo* [along-lie] 'lie along stretched out', retains the spatial prefix unaltered in its k.k. form *burlurr-morndi*. However, incorporated nominal roots have distinctive Kun-kurrng forms, as long as the corresponding free forms do, because they are incorporated in the same way as in the ordinary language — by dropping any noun-class prefix and prefixing it to the verb stem; compare o.l. *kanj-ngun* [meat-eat] 'eats meat' (*kun-kanj* 'meat'), whose k.k. form is *mulbbuy-yakwan* (k.k. *kun-*

mulbbuy 'meat'), and o.l. *bo-ngun* [water-eat] 'drinks', whose k.k. form is *djulkkinj-yakwan* (k.k. *kun-djulkkinj* 'water'). Another pair of examples illustrating noun-verb compounding (see §8.1.3) with a different verb are o.l. *dord-nan* [lice-see] 'look for lice', k.k. *barndidj-kurdurdmen* ('louse' is o.l. *dord* and k.k. *barndidj* and o.l. *nan* = k.k. *kurdurdmen* 'see') and o.l. *bolk-nan* [country-see] 'look after/around country', k.k. *melwon-kurdurdme* ('country' is o.l. *kun-bolk* and k.k. *kun-melwon*). However, see below for an example of a noun root (*bim* 'painting, image') which has the same form in both registers, whether it is free or incorporated.

Moreover, many internally complex verb stems built up from a prepound and a theme (§8.2) mirror this structure in Kun-kurrng. In some cases (e.g. (a) and (d) below), the same prepound is used in both registers, while other cases ((b) and (c)), a distinctive prepound form is used in Kun-kurrng. By and large the corresponding theme is employed in the Kun-kurrng verb; note that a full stop is used to show the boundary between prepound and theme.

(a) o.l. *bid-kuyk.me-rren* 'make ochre spray-print of one's hand', built up from the root *bid* 'hand' into the complex stem *kuyk.me*, then adding *-rren* to create a reflexive form, becomes k.k. *kondam-kuyk.bongh.me-rren*; *kondam* is the Kun-kurrng root for 'hand', the preverb *kuyk* is retained and the formative *bongh* (found in many Kun-kurrng verbs) is interposed between the preverb and the thematic *me*; then the form is reflexivised in the normal way.

> Note in passing that the formative *bongh-* is highly productive and is also applied to produce respect forms from some English loans: 'buy' is o.l. *bayahme* and k.k. *bayahbonghme*. It is also found in respect register vocabulary in several other Gunwinyguan languages, including Ngalakan, Jawoyn and Dalabon.

(b) o.l. *bukirri.yo* 'dream', built up of the root *bukirri* 'dream' plus *yo* 'lie, sleep', becomes *borridj.morndi* — *borridj* is a k.k. root[42] meaning 'dream' (*borridjbonghme* 'dream of', corresponding to o.l. *bukirri-bun*); *morndi* is the k.k. root covering sitting and lying (i.e. corresponding to both o.l. *yo* and *ni*).

(c) o.l. *yakwon* 'finish off', built up from the root *yak* 'nothing' (also the privative suffix) plus *won* 'give', becomes k.k. *yakura-weybun*, where *yakura* is the k.k. root for 'nothing' (and also the privative suffix) and *weybun* is the k.k. root for 'give'.

(d) o.l. *durrkmirri* 'work', built up from the prepound *durrkmi* plus *rri* (an allomorph of *di* 'stand') becomes k.k. *durrkmi-djarrberlme*, retaining the prepound *durrkmi* and substituting the k.k. root for 'stand', which is *djarrberlme*. (Note also that 'play', which in o.l. is expressed by the reduplication of *di* 'stand' to give *dirri*, is expressed in k.k. as *djarrberl-djarrberlme*.)

Similar structural parallels are found with nominals. Reduplicates, for example, are constructed by substituting the appropriate k.k. equivalent; thus o.l. *kun-wardde* 'rock' equals k.k. *kun-bangam*, while the reduplicated o.l. form *kun-warddeh-wardde* 'escarpment country, rock country' has as its k.k. equivalent *kun-bangah-bangam*.

There are also a number of cases where there is partial but unsystematic overlap between the forms, usually taking the form of a common first syllable: o.l. *man-burluddak* 'stringybark' (I) = k.k. *man-burludjdjurri*; o.l. *an-larrh* 'cypress pine' (Dj) = k.k. *an-larnganganj*, o.l. *wakwak* 'crow' = k.k. *wakwarrayal*.

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42   This is an example of loan words from neighbouring languages being borrowed as Kun-kurrng roots: in Burarra the word for 'dream' is *borrich*.

Despite the parallels sketched above, there is not always perfect structural congruence between forms in the two registers. 'Warm oneself by the fire', for example, is not overtly reflexive in the ordinary language form (*kuwan*), but is in the k.k. form (*ngolkkerren*, with reflexive/reciprocal *-rren*).

1.5.1.2 *Semantic correspondences between Kun-kurrng and everyday vocabularies*

Although it is always the case that respect vocabularies are smaller than everyday vocabularies in Australian languages, there are a number of ways in which the two can correspond. The Dyirbal respect register, as described by Dixon (1971), essentially involves many-to-one correspondences through the whole vocabulary. The many-to-one mapping can reach extreme dimensions, as in the Gurindji respect register where all transitive verbs from the ordinary language map onto a single verb in the respect register (McConvell 1982). Alternatively, special respect forms may exist for only a subset of the vocabulary, which is the case for Guugu-Yimidhirr, for example (Haviland 1979).

Kun-kurrng lies at the upper end of documented respect registers in terms of vocabulary size; though documentation is far from complete, around 500 Kun-kurrng roots are currently recorded. Many common plant and animal names, for example, have their own distinct Kun-kurrng roots, as with the tuber terms o.l. *karrbarda* (long yam *diascorea transversa*), *man-kodjbang* (water peanut *aponogeton elongatus*) and *man-yawok* (cheeky yam *amorphophallus paeoniifolius*), which have the k.k. equivalents *man-karremudyi*, *man-borndengkekorrongko* and *man-mari* (or *man-milekan*). And even sex-specific terms for some macropod species maintain a terminological distinction in Kun-kurrng (cf. o.l. *karndakidj* 'male antilopine wallaroo', k.k. *kalngunjkorrongko*; o.l. *karndayh* 'female antilopine wallaroo', k.k. *ngal-marndamarndayi*; o.l. *kalkberd* 'male wallaroo', k.k. *(na)njamlurruk*; *wolerrk* 'female wallaroo', k.k. *ngal-wardderdomrdi*). Sometimes such gender-specific terms have distinct roots in ordinary language but the same root combined with different noun class prefixes in Kun-kurrng (e.g. o.l. *barrk* 'male black wallaroo' = k.k. *na-kulngunj*, o.l. *djukerre* 'female black wallaroo' = k.k. *ngal-kulngunj*).

Nonetheless, it is often the case that the Kun-kurrng vocabulary does not extend to distinct forms for every ordinary language lexeme. In this case one of two strategies are used:

(a)   A Kun-kurrng lexeme covers more than one ordinary language lexeme, through semantic extension of one type or another.

(b)   The ordinary language form is simply used as is.

We exemplify each of these strategies in turn.

SEMANTIC EXTENSION This most commonly involves the use of a Kun-kurrng term of more general meaning, forming a superordinate to the hyponyms used in ordinary language. Where biota are denoted, this superordinate term may or may not correspond to an intermediate taxon in Western classifications, for example:

- *badbong* 'short-eared rock wallaby', *djorrkkun* 'rock possum' and *nabarlek* 'little rock wallaby' are all small rock-dwelling marsupials which share the k.k. equivalent *dolhwarr* (which is also the word for 'short-eared rock wallaby' in Dalabon and in the Kundedjwarre clan lect);

- *kun-dayarr* 'pandanus spiralis', *man-djimdjim* 'pandanus acquaticus' and *man-ngohngo* 'pandanus basedowii', the three species of pandanus growing in the region, are all denoted by k.k. *kun-yarilng*.

Within the domain of body parts it may involve the same Kun-kurrng term for adjacent parts (e.g. *kun-kom* 'neck' and *kun-djud* 'nape of neck', both *kumadj* in k.k).

Metaphors of similarity may also be exploited, as with o.l. *kun-kawadj* 'sand' and *djukka* 'sugar', both *kun-karnalanj* in k.k.; *delek* 'white clay' and *kandidjawa* 'flour; damper', both *kabarrh* in k.k.; and *mandjawak* 'knife', *barrawu* 'shovel-nosed spear', *lama* 'iron or stone spear-head' and *djalakkiradj* 'wire-pronged spear', all *djerrkudmiken* in k.k.

A similar range of principles applies to verbs. Hypernymic relationships occur in o.l. *yo* 'lie' and *ni* 'sit', both *morndi* in k.k. and *bun* 'hit (typically with a held object); kill' and *dulubun* 'hit or kill with a thrown or shot object', both *biribonghme* in k.k. Metonymic extensions are found in euphemistic Kun-kurrng expressions, such as the use of *morndi* 'sit, lie' to cover *dedjdjong* 'have sex'.

An interesting set of perceptual vs sensory distinctions maintained in the everyday language but conflated in Kun-kurrng involve pairs contrasting hearing vs general intellection; this pattern runs through both nouns and verbs, as with *kun-kanem* 'ear', *kun-beng* 'faculty of understanding and intellection', both *kun-mardorrk* in k.k.; *bekkan* 'hear; feel; understand (language)' and *bengkan* 'understand (generally), know, think', both *marrngalahme* in k.k. (See Evans & Wilkins 1998 on 'hear'/'know' polysemy in Australian languages more generally.)

USE OF ORDINARY LANGUAGE TERM This is only attested with non-verbal roots, particularly nouns. As well as the more obscure plant, animal and implement names, quite a few basic nouns also lack Kun-kurrng equivalents, such as *djang* 'dreaming, dreaming site', *kabbal* 'floodplain', *karlba* 'yellow ochre' and *bim* 'picture, image'.

All verbs and predicate adjectives have a Kun-kurrng counterpart and since virtually all clauses contain verbs this makes sure that the respect relationship is indexed at least once in every clause except those with nominal predicates. Thus 'they are looking for paintings and recording them', which in ordinary language is *bim kabirriyawan kabirribimmang* [painting they.look.for they.painting.record] would in Kun-kurrng be *bim kabirrirombehme kabirribimmodme*; note that here *bim* also appears unchanged as an incorporated noun in Kun-kurrng. A second example, where the proportion of unchanged words is higher and with a formally identical nominal predicate in the same utterance as a verbal clause where the distinction is signalled, is the following:

1.21 o.l.	*Djang*	*ka-yo*	*man-dudjmi,*	*duwa,*	*djang*	*ngarduk.*
I k.k.	*Djang*	*ka-morndi*	*man-kurdildil*	*duwa,*	*djang*	*ngarduk.*
	dreaming	3-lieNP	III-green.plum	[moiety]	dreaming	my

'There's a green-plum dreaming there, a Duwa one, it's my dreaming.'

1.5.2 Kun-derbi: *a polite trirelational kinship vocabulary*

When adults refer to kin they make use of a special set of 'polite' kin terms, known as *Kun-debi* (W), *Kun-derbi* (I), *Kun-derbuy* (E) or *Gun-dembui* (Dj).[43] Speakers characterise

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43   So far I have been unable to obtain an etymology for any of these terms.

Kun-derbi as a reference system 'that always lets you know who you're talking about — like *balanda* names' but 'without naming people'. Jawoyn has a similar system called *Yernderr*, explored in Merlan (1989). Unlike Kun-kurrng, which presupposes a single kin dyad as context and indexes this context through replacement of almost the whole vocabulary, Kun-derbi can index virtually any kin dyad as a distinctively coded context, but signals it only through the choice of terms for kin reference.

Because kin terms are two-place predicates, their referent cannot be calculated until one knows the propositus — the person from whose position the kin term is calculated. This can be done in three ways. First, it may rely on pragmatic rules (e.g. that talk to or by a child takes the child as propositus, so that 'mummy' said **by** a child usually means 'my mummy' and **to** a child means 'your mummy'). Second, the propositus may be coded explicitly, as when one says 'my mother' or, in Dalabon, *nah-ngan*, where *-ngan* means 'my'. Third, there may be different lexical items according to the propositus, as with Japanese. Kun-derbi uses a mix of these strategies, but with the added complication that there are simultaneously two propositi, so that there are terms with meanings like 'the one who is my mother and your daughter, given that you are my grandmother'. A sample of ways of referring to an individual who is the mother (*garrang*) of one of the speech-act participants will give an idea of how this works (terms from the Gun-djeihmi variety):

al-garrng	'the one who is your *garrang*[44] (M) and my daughter, given that I am your MM (*gakkak*)'
al-doingu	'the one who is your daughter and my mother, given that you are my MM (*gakkak*)'
al-gakkak	'the one who is your *gakkak* (MM) and my mother; given that I am your mother'
arduk gakkak	'the one who is my *gakkak* and your mother, given that you are my mother'.
al-bolo	[lit. 'the old woman'] 'the one who is mother of one of us and mother-in-law of the other, given that we are husband and wife'

First note that these terms are normally taught in pairs: for example a young person's *gakkak* will teach them that when they speak together the young person should refer to his or her mother as *al-doingu*, while the *gakkak* should refer to the young person's mother as *al-garrng*. Likewise, a woman will teach her daughter that the latter should refer to her *gakkak* as *arduk gakkak*, while the mother will refer to that person as *al-gakkak*. A prescriptive statement typifying this method of instruction is the following (in I): *bu ngabenrdebikan ngayime 'nababba kamhre' wanjh ngudda yiyime 'yo, nakiwalak namekke'*, lit. 'if I use Kun-derbi and I say "*nababba* is coming", you would say "yes, that's *nakiwalak*"' (GID). In practice the system is not taught in its entirety by any one person; rather, senior people teach juniors the full set of forms appropriate when the two of them are talking together; in other words, they work through the possible set of referents they may wish to discuss together. So a young *al-bulanj* subsection girl might be taught the terms *al-garrng* and *al-doingu* by an *al-ngarridj* subsection woman and the terms *al-gakkak* and *arduk gakkak* by her *al-gamarrang* subsection mother.

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44   Loss of the second vowel from *garr(a)ng* here follows from the rule Vowel-drop, given in §3.5.

Second, it will be clear that the degree of transparency of these terms varies. Within the five considered above, *arduk gakkak* is simply composed by combining *arduk* 'my' with *gakkak* and is hence fully explicit, although it is still conventionalised in the sense that it would only be used to certain categories of relative. *Al-gakkak* combines the feminine prefix with the root and does not explicitly index the propositus; rather, the unusual use of the prefix indexes the fact that it is a term used by a mother to her child (and many other terms used by mothers to their children prefix *na-* or *al-* in this way). *Al-garrng* is similar, being based on *garrang* but with a distinctive dropping of the second vowel. *Al-doi-ngu* is a special lexical form, though still ultimately analysable etymologically: the propositus is made explicit, at leeast etymologically, by the archaic second person possessor suffix, productive in Dalabon[45] but in Bininj Gun-wok confined to the Kun-derbi subvocabulary;[46] the root *doi* is found in the kin term *doydoy* — (Dj *doidoi*) 'MMM, FFM' and people of the *doydoy* category to the hearer are in the same subsection as the referent; *al-* is again the feminine prefix. So etymologically the word is 'she that is your *doy(doy)*, i.e. your classificatory MMM'. In the final example, *al-bolo*, there is genuine vagueness; as with kin uses of English 'the old woman' (or, for that matter, 'the mother-in-law') either speaker or hearer may be the propositus.

It appears that these terms are strung along a cline from totally transparent, with the propositus marked explicitly (e.g. *arduk gakkak* above), through terms that contain etymological markers of the propositus that are no longer productive (e.g. the suffix *-ngu* 'your', as in *na-bei-ngu* 'the one who is your son and my younger brother, given that we are father and son' (cf. *beiwurd* 'son' and Dalabon *be(y)* 'son'), to terms that resist synchronic analysis (e.g. Kuninjku *na-ngadjkewarre* 'the one who is your *nakurrng* (WMB) and my *ngadjadj* (MB), given that we call each other *makkah*'). It seems likely that the system originated as a formalisation of a number of principles of 'centricity' (Merlan 1982a) governing who it was polite to take as propositus, but blurring into circumspection and obscure usage where certain of these principles came into conflict.

It will be apparent that to successfully use these terms requires the ability to take the hearer's perspective and work out the referent's kin relationship to the hearer as well as to oneself; in addition, it requires one to make fine judgments about the nature of the relationship between oneself and one's interlocutor. Kun-derbi is the most intellectually demanding part of the Bininj Gun-wok lexicon and is acquired relatively late in life; in most traditional outstations south of Maningrida, adults in their twenties, who had full command of the normal registers and some fluency in the use of avoidance language, were still far from having a complete mastery of Kun-derbi.

Some speakers claim that the metalinguistic term Kun-derbi is not restricted to kin terms, but covers other polite ways of referring, such as the use of *yik-* prefixed clan names when referring to the dead (e.g. *Na-yik-Badmardi* 'the late (male) Badmardi') (see §5.3.1.4). However, the vast majority of usages identified as Kun-derbi involve kin terms; so far over one hundred terms have been collected. An extended discussion of Kun-derbi is beyond the

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45 Cf. Dalabon *rolu-ngu* 'your dog'.

46 Other Kun-derbi words with this suffix include *na-/al-minjdjadngu* 'the one who is my daughter's daughter and your *ganjok*, given that I call you *gakkak*' and *nangalayngu* 'the one who is my father and our uncle, given that we are cousins' (this form has other senses as well). The obscurity of the roots *minjdjad* and *ngalay* in these cases, however, makes it hard to know exactly what the original meaning of this expression was, though it probably included 'your [feminine] X'.

scope of this grammar; Andrew Manakgu of the Kunwinjku Language Centre is currently producing a book on the topic.

1.5.3 Naming and address

As recognised by Stanner (1937), the choice of names and address terms is a complex and difficult matter in Aboriginal society and many indirect means are preferred as a substitute for specific personal names. In Bininj Gun-wok the commonest means of identification are kinship terms (including Kun-derbi terms), subsection terms and clan names. A typical use of subsection name combined with clan name is the following, from a text by David Kanari:

1.22   *Ginga   barri-dulubu-ni   gorrogo   and   bi-marne-durrkmirri-ni.   Bedda*
       crocodile 3aP/3-shoot-PI   before   3/3hP-BEN-work-PI   they

      nangamed,   Nangarridj Nabolmo   Nangarridj, Fred   balanda
      whatsisname Nangarridj Nabolmo   Nangarridj   European

      ba-ngei-yo-i.
      3P-name-lie-PP
      'They used to shoot crocodiles in the olden days and he worked for him.
      They, him and whatsisname, a NaNgarridj man, a NaNgarridj man of the
      NaBolmo clan, Fred was his European name.'

The matrimoiety names are also sometimes used for identification in the western dialects, but the patrimoiety terms never are.

Humorous nicknames are also widely used throughout the Bininj Gun-wok area. One productive way of forming nicknames is the 'mishap' compound X-Y, where X denotes the body part affected by the mishap and Y the offending entity. As Mick Alderson put it, 'whatever you get hit by, you get a nickname' (e.g. *ngorrk-madjawarr* [torso-bamboo.spear] 'someone hit in the ribs by a bamboo spear' — see §5.4.4 for further examples). Other nicknames are formed in a more ad hoc manner. For example, the nickname of one senior Gun-djeihmi man was *NaDjikka* (lit. 'he-breast'), because he continued yelling for his mother's breast late into boyhood.

'Bush names' are used with more circumspection and conferred in a more regulated way. Typically they are passed on from father's father to son's son, or from father's father's sister to brother's son's daughter. For example, Eddy Hardy took his bush name *Gabburriyarn.ga* from his father's father (a *Nabulanj* man of *Nabolmo* clan) and passed on his own father's name *Garraladda* to his son. There is a tendency for European first names to be passed on in the same way. The bond created by such namesaking is a special one and there is a special term, *ngeigo*, for referring to namesake dyads (§5.3.1.2). Most bush names cannot be analysed into meaningful components (other than the occasional noun class prefix), as with the above two or *Nayombolmi*, the name of Barramundi Charlie.

When someone dies, name taboos apply to their bush names and their European names, but their subsection titles can still be used, often in combination with a phrase like *gure X bawakwam* 'who was lost at X'. More generally, they may be referred to as *na-ngeiwarre* 'he-name-bad' if male and *al-ngeiwarre* if female.

Clan names of deceased people should not be used directly, but should either be prefixed by *yik-*, as in *Nayikbadmardi* 'the late (male) Badmardi', or used with the *gun-* prefix

normally used for clan territories, as in *Gun-Badmardi*. In the latter case indirect reference is made to the deceased via the land he or she belonged to.

Another important taboo concerns the use by a man of his sister's name, or vice versa. The verb *bengbun* 'offend the sensibilities of' is often used in connection with a disregard of this practice:

1.23 *ngey-warre   nakka   yuwn yi-ngeybu-n,   wardi yi-bengbu-n   ngalkka!*
I   name-bad   MA:DEM   don't 2/3-name-NP   might 2/3-offend-NP   FE:DEM
      'Don't use that bad name (i.e. your sister's), you might offend her.'

1.6 Fieldwork, previous work, sources

This grammar draws both on my own fieldwork of approximately sixteen months since 1986 and that of other investigators. The mix depends on the dialect and the topic and I treat them together here.

There has been substantial previous work on the Kunwinjku dialect, mostly by a series of linguists working for the Church Missionary Society at Oenpelli. Through the 1930s and 1940s missionaries Nell and Len Harris, working in conjunction with local Aboriginal people and with Dr A. Capell of the University of Sydney, began analysing the grammar, collecting texts, developing an orthography and translating the Bible (see Harris 1990:838–839). A series of trained missionary linguists — Lynette Oates, Merrill Rowe, Peter Carroll and Steve Etherington — carried this tradition forward, in the process increasing the depth of linguistic documentation, training Kunwinjku speakers in vernacular literacy, linguistic analysis and translation skills. This led, for example, to the publication of important work by Kunwinjku speakers Andrew Manakgu, Esther Djayhgurrnga and others. Especially in Carroll's case, large numbers of texts were also recorded while documenting the works of Aboriginal artists, especially bark painters. In terms of published work, the highlights of this tradition are:

- Oates (1964), the first grammar of Kunwinjku;
- Rowe (n.d.), a handwritten manuscript which explores Kunwinjku verbal morphology in great detail;
- Carroll (1976), a further grammar of Kunwinjku, with a different focus to Oates, a more accurate treatment of the phonology and the first comprehensive systematisation of Kunwinjku conjugations;
- Etherington and Etherington (1994), a pedagogical grammar notable for its attention to idiom and commonly employed constructions;
- a series of works written by Andrew Manakgu with the intention of illustrating nuances of Kunwinjku for the benefit of younger speakers, such as a book (Manakgu 1998) with facing texts in regular Kunwinjku and the respect register Kun-kurrng;
- Carroll (1995), a study of Kunwinjku verbal art, particularly important for its analysis of episode structure, pause and its text collection;
- a translation of parts of the Bible (three books from the Old Testament and four from the New) representing the combined efforts over several decades of most of the above individuals, as well as other Kunwinjku-speaking members of the Bible-translation team; this appeared in 1992 and its command of a wide stylistic range and respect for semantic accuracy make it a major achievement in translation. However, because it is

a translation and in many respects a new register it is not systematically taken into account in this grammar;

• Nganymira (1997), which brings together a large corpus of mythological and autobiographical texts by artist Alex Nganymira, together with reproductions of bark paintings and photographs of relevant sites; these texts were mostly gathered by Carroll and later transcribed and translated (freely) by Manakgu and Etherington

I shall not evaluate these in further detail here, but at relevant points in the text will refer to their analyses and data. The Carroll and Nganymira corpora have been regularly drawn upon as a source of data and for checking generalisations.

A number of other anthropologists and linguists have also worked on Oenpelli Kunwinjku. In the 1950s anthropologist Catherine Berndt recorded (by dictation) and published a number of texts (Berndt & Berndt 1951b, 1970b), though unfortunately the collection they published as *The speaking land* (1988) only contained the English translations and the Kunwinjku originals are not publicly available; she also wrote an interesting article on idioms and figures of speech in Kunwinjku (Berndt 1951). The brilliant figure Ken Hale, in the course of expeditions that led to his much better-known work on a number of other Australian languages, spent several weeks working with Kunwinjku speaker Frank Francis in Howard Springs, resulting in a substantial body (174 pages) of fieldnotes (lodged at AIATSIS) containing, among other things, important information on gender agreement and special kinship vocabulary, as well as some richly graphic texts. In the 1970s, as part of the Ranger Inquiry on the impact of uranium mining, linguist Sue Kesteven did further fieldwork on the language (Kesteven 1984).

My own work on the Kunwinjku dialect has been limited to around six weeks, mostly in the context of vernacular literacy courses and other language projects which I taught as part of teacher training programs run out of Batchelor College and the (then) School of Australian Linguistics in 1986–88 and 1991; during this time Esther Djayhgurrnga and Faith Mangiru, younger Kunwinjku with excellent English (then in their twenties and thirties) were of great assistance. Subsequently, in the course of work on other dialects (and other languages in the region, such as Ilgar and Iwaidja) I have often recorded and checked further material; Goldie Blyth, who grew up speaking Iwaidja and Kunwinjku but later learned excellent English while living in southern Australia with her missionary engineer husband, was a particularly valuable source for discussing semantic nuances. Most of the Kunwinjku material in this grammar, however, is drawn from the various sources cited above.

The Gun-djeihmi material, on the other hand, is largely based on material I collected myself during some nine months of fieldwork between 1987 and 1991, as part of a consultancy, funded by the Australian National Parks and Wildlife Service (ANPWS) and the Gagudju association, to develop an orthography and initial language documentation for Gun-djeihmi. Many of my ideas about the phonology of the language, as well as numerous minimal pairs, arose while teaching service courses on the new orthography to Gun-djeihmi-speaking Park Rangers. The concerns of the ANPWS meant that a relatively large amount of material on such topics as animal and plant behaviour, oral history of the buffalo-hunting period and material on ecology and land management (e.g. traditional burning practice) was recorded as part of the textual corpus, but the need to work out the grammar of Gun-djeihmi, then virtually undescribed except for some remarks in Harris (1969), meant that I spent a lot of time on more structured elicitation work as well, especially with †Toby Gangele, Eddie Hardy and Violet Alderson. I was fortunate in being able to use vocabulary and ethnographic

notes by Chaloupka and Giuliani (1984), Chaloupka et al. (1985) and Russell-Smith (1985) as the point of departure vocabulary collection and for prompting older speakers to produce short 'oral essays'.

Material on Kuninjku and Kune comes from two sources: documentation by Murray Garde (including a draft dictionary, numerous texts and personal observations) and my own fieldwork (mostly undertaken jointly with Garde) at a number of outstations out of Maningrida between 1989 and 1997, totalling around sixteen weeks. Again, the format of gathering material varied widely, encompassing participant observation (often while undertaking traditional activities such as hunting and visiting sites), structured elicitation, recording of stories (often recounted to the whole outstation round the camp-fire at night) and subsequent transcription with younger speakers, checking of cross-dialectal material, gathering of information on the encoding of spatial relations from picture stimuli and the production of basic literacy materials for the outstation schools as part of week-long language workshops attended by trainee teachers from a number of outstation schools. Garde's own materials are gathered over nine years of more or less continuous residence in Kuninjku-speaking communities. As previously unconsidered questions arose during the final write-up period of the grammar, I was able to send specific questions by email to Garde, who checked them with speakers in Maningrida or nearby outstations.

My most important language teachers for these dialects were †David Karlbuma (Kune Narayek, also Dalabon) and Charlie Brian (Kune Dulerayek) and Mick Kubarkku, James Iyuna, †Big John Dalnga-Dalnga and Big Bill Birriya-Birriya for Kuninjku.

Manyallaluk Mayali material was recorded during two visits to Barunga and Manyallaluk, totalling about three weeks, in 1996 and 1997; these visits concentrated on checking dialect differences, some aspects of grammar and the recording and transcription of traditional myths and autobiographical material. My main teachers of this dialect were Mary-Ann Kalamuka, Mavis Jumbiri and †Hilda Dooley.

Other material was gathered as opportunities arose while working in other locations, including Bulman (while working on Dalabon), Croker Island (while working on Ilgar, Iwaidja and Marrgu), Darwin and Batchelor (where many speakers of Bininj Gun-wok undertake higher education).

2 *Phonology*

The phoneme inventory of Bininj Gun-wok comprises five vowels, with no length distinction, and twenty-two consonants. In its consonant inventory it arrays stops and nasals at five places of articulation — bilabial, velar, apico-alveolar, apico-retroflex and lamino-palatal — with an additional medial contrast between short and long stops and a glottal stop restricted to syllable-final position. There are two laterals (apico-alveolar and apico-retroflex), two glides (labio-velar and palatal) and a contrast between a tapped or trilled rhotic and a retroflex continuant. Although the above list treats retroflex consonants as distinct segments, as is conventional, there are reasons for analysing retroflexion as a syllable prosody; these are discussed in §2.3.2. Syllables are frequently closed, engendering complex clusters. The rules for assigning stress are complex and are discussed in §2.5.

There are few differences between the dialects in phonology. In what follows forms will be cited from the Gun-djeihmi dialect and in that orthography, unless otherwise stated. Dialect differences in orthography, which are confined to diphthongs and consonants, will be discussed in the relevant sections.

2.1 Vowels

Table 2.1: Phonemic vowel system

	Front	Central	Back
High	i		u
Mid	e		o
Low		a	

The system of five phonemic vowels, distinguishing quality but not length, can be grouped as in Table 2.1. The orthographic symbols correspond to the expected phonetic symbols, having their Latin values.

Phonetically, these essentially have their cardinal values except that:

(a) *e* and *o* are rather open (phonetically [ɛ] and [ɔ]) in closed syllables (e.g. *gek!* [gɛːk] 'I say', *mod* [mɔːt] 'children's python'), and the high vowels *i* and *u* are somewhat lax and centralised in the same positions (e.g. *bukbuk* [bʊkbʊk] 'pheasant coucal', *barribimbom* [baribɪmbɔm] 'they painted'). Note that long consonants (§2.3.3) render

the preceding syllable closed for the purposes of vowel allomorphy, thus *bedda* /bed:a/ 'they' is [bɛt:a].

(b)   *e* is rather close [e⊥] word finally (e.g. *gayime* [gajime⊥] '(s)he does').

(c)   All vowels except *i* end with a clear palatal off-glide before tautosyllabic palatal consonants (e.g. *madj* [maᶦt] 'swag', *gun-godj* [gɔngɔᶦt] 'head'). There is also some diphthongisation of all but *i* in front of tautosyllabic retroflexes (see §2.3.2 for more on retroflexion), taking the form of a high front off-glide accompanied by retroflex colouring (e.g. *gun-berd* [gɔnbɛᶦʈ] 'tail'). Some early sources, such as Capell and the Berndts, often fail to transcribe syllable-final palatals and retroflexes, but do transcribe the diphthongisation (except before i) so that the correct phonemicisation can be recovered.

In Kune there is a marginal sixth vowel phoneme: a high central vowel [ɨ], written *v* in the practical orthography, restricted to a few loan words from Dalabon and Rembarrnga, which both have a full-fledged sixth vowel phoneme. Some examples are the Kune (Dulerayek) word for the tree *casuarina cunninghamiana*, which is *ngawvrrh* [ŋawɨrʔ), the Kune Narayek word *mangvlorrbbo* [maɲɨlɔrpːo] 'grass sp. eaten by black wallaroo' and the place name *Bvrba* [bɨɹba], pronounced [biɹba] in the five-vowel dialects.

The phonemic status of the five main vowels is illustrated by the following minimal and near-minimal pairs. The sixth vowel in Kune is so rare that no minimal or near-minimal pairs have yet been found.

middurru	'tick'	*malkno*	'skin, subsection' (E)
yimedda!	'you look around!'	*molkno*	'secretly' (E)
yimadbun	'you wait'		
yimodmen!	'you be quiet!'		
yimudwern	'you are hairy'		

Non-front vowels:		Non-back vowels:	
an-bunj	'bamboo shaft, bamboo pole'	*bayimeng*	'(s)he said'
bonj	'enough!'	*bayemeng*	'(s)he was ashamed'
yigukbanj	'you stink'	*bayameng*	'he speared it'

2.1.1 Vowel groupings suggested by phonological patterns

A number of patterns apply to natural classes of these five vowels:

(a)   In the Mayali dialects, initial *ng* can be dropped before the non-front vowels *a*, *o* and *u* in some environments (§2.4.2).

(b)   The two front vowels *i* and *e* condition a correspondence between morpheme-initial *y*, in Mayali and Kunwinjku and *r* in more easterly dialects: M, W *nayin*, E *narin* 'snake'; M *gun-yerrng*, E *kun-rerrng* 'firewood'; M, W *yi-*, E *re-* 'comitative prefix'. (There is also one case of this correspondence before *a*: M, W *yawoyh-*, E *rawoyh-* 'again'). These two vowels are also grouped together by seemingly free variation in a few environments. The word *(ng)aye* 'I' is sometimes pronounced *(ng)ayi* in Gun-djeihmi and Kuninjku, and in Kune *ngayi(h)* is the only pronunciation. 'Tadpole' alternates in pronunciation between *karlkke* and *karlkki* in Kuninjku.

(c)   Cross-cutting the above groupings are restricted alternations within the verb paradigm between the non-high, non-back vowels *a* and *e* and the non-low back vowels *o* and *u*:

ma-ng	get-NP	*me-i*	get-PP
ra-i	go-IMP	*re-ø*	go-NP
bu-n	hit-NP	*bo-m*	hit-PP
yu-n	lie-IMP	*yo-ø*	lie-NP

The two non-low back vowels also alternate, in Kunwinjku, in the preposition *kore* ~ *kure* (Oates 1964:13) and in Kuninjku in *kordduk* ~ *kurdduk* 'shit'.

2.1.2 *Non-phonemic vowel length*

Although vowel length is not phonemic,[1] there are some environments in which they are phonetically long (shown by [ː] in this section only).[2]

(a)   Monosyllables are commonly (though not invariably) pronounced with their vowel lengthened (e.g. [nɪn ~ niːn] /nin/ 'grass wren', [mak ~ maːk] /mak/ 'message stick'). This is particularly noticeable in monosyllables which, as interjections, carry the intonation for a full sentence (e.g. [bòóɲ] /boɲ/ 'OK then (you needn't persuade me any more)'). The possibility of vowel lengthening disappears when another morpheme is added: *nud* [nuːt] 'stinking, rotten', *nudbanj* [nɔtbaɲ] 'stinking, rotten'.

   The monosyllables in the above category all have the form CVC. In the case of monosyllables of form CVCC, such as *barrk* 'black wallaroo', the vowel is always short.

   Only two open-class CV monosyllables exist and these are restricted to the non-Mayali dialects; both are pronounced with long vowels: *ni* '(s)he/it was sitting' (W, I, E), *di* '(s)he/it was standing'. In Mayali these would take the third person minimal past prefix *ba-* and would therefore no longer be monosyllables, though condition (b) below then applies to them.

   The only other open monosyllables, the conjunctions *ba* and *bu*, are always grouped phonologically with the following (or more rarely the preceding word) and then fail to count as monosyllables for the assignment of non-phonemic length (e.g. *bu ngudda* [buŋɔ́tːa] 'and what about you?').

(b)   There is a small set of monosyllabic nominal roots of form CV which, though they cannot be pronounced in isolation, are pronounced with a long vowel if they precede either (i) the third person possessor suffix *-no* or (ii) another root, whether as a result of incorporation, noun–verb compounding or noun–adjective compounding. The CV root may be word-initial, or preceded by nominal or verbal prefixes and more than one such root may occur in the same root. Examples are:

kaː-no	'(its) quill (of echidna)' (MM)
moː-no	'(its) bone(s)' (I, E, MM)
man-boː-mak	[VE-liquid-good] 'good water' (W)
ga-boː-yoː	[3-liquid-lie] 'there is water' (Dj, W)

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[1]   Oates (1964) left open the possibility that vowel length was phonemic, but subsequent descriptions have all discounted this and the orthography does not distinguish long vowels.

[2]   See Borowsky and Harvey (1997) and B. Baker (1999) for a discussion of similar phenomena in Warray and Ngalakgan respectively.

ko:-no   '(its) flower' (E, MM)
ka-ko:-bun   [3-flower-strike] 'it comes into flower' (E, MM)

In the word for 'drink', structurally 'liquid-eat', the incorporated *bo* is on the way to being lexicalised and speakers vary between short- and long-vowel pronunciations (*bo:ngun ~ bongun*), whereas for all other occurrences of this root the vowel is long.

(c)   A few disyllabic roots have a long open *e* in their second syllable, associated with aberrant stress placement, which only appears before flapped following stops (see §3.1.1). The most important roots in this set are √*mirndé* 'many', √*dilé* 'urine, piss' and √*bulé* 'blackened, burned, dark', as in *arribulerri* [aribulé:ri] 'we Aborigines, we black people' (%*arri-bule-di*% [we-black-stand]).

(d)   Phonetic long vowels may arise from the phoneme sequence *iyi*, as in *gabarriyigan* 'they go for it', phonetically [gabari:gan] and from loss of /g/ between two vowels, as in some speakers' pronunciation of *nagamarrang* 'male skin name' as [na:maraŋ].

(e)   Stressed syllables of form CV? in *X -me* verb stems have a lengthened vowel; mid-vowels are somewhat open in this environment.

awehme	'I vomit'	[awé:?me]
ngadjohme	'I want to cough'	[ŋaɟɔ́:?me]
adjuhme	'I bogy, swim'	[aɟú:?me]
abuhme	'I blow'	[abú:?me]

(f)   There is expressive lengthening of the final syllable of an intonational phrase (most commonly, but not necessarily, a verb) when duration of the activity is stressed; this is usually accompanied by a suspended high intonation contour (e.g. *barriwa:::m* 'they kept going and going'; *bidjaldulubom madjawa::rr* 'she kept spearing her with her quills (*madjawarr*)').

(g)   One word remains that has a lengthened vowel not accounted for by any of the above: Dj *an-di:rnku*, W *man-di:rnku* 'cycad'. The fact that the *d* is phonetically retroflexed in some dialects (e.g. Kune) shows it to be in the same syllable as the retroflex nasal in those dialects (see §2.3.2), ruling out an interpretation as reduced from underlying *man-diyirnku* by (d) above. In this word only, I mark vowel length orthographically.

2.2 Diphthongs

Eight phonetic diphthongs occur in all dialects, though phonemically these are best analysed as sequences of vowel plus semivowel (see below). The eight diphthongs represent all possible combinations of vowel with a following glide except for that of a high vowel with a glide of equivalent frontness. Orthographically, the second element is written with a semivowel symbol in the Kunwinjku and Manyalluluk Mayali orthographies and with a vowel in the Gun-djeihmi orthography; phonetically, the relative prominence of the two vocalic elements varies according to the diphthong, as follows.

Orthography:

Kunwinjku, Manyalluluk Mayali	iw	ew	aw	ow	ey	ay	oy	uy
Gun-djeihmi		iu	eu	au	ou	ei	ai	oi	ui

Phonetic transcription:

showing relative prominence: [i͡u   e͡ŭ   a͡u   o͡ŭ   e͡ĭ   a͡ĭ   o͡ĭ   u͡ĭ]

For convenience, in discussions of diphthong types below I shall refer to 'w-final' and 'y-final' diphthongs even where my examples are Gun-djeihmi and do not employ orthographic *w* or *y*.

Examples of each of these diphthongs are:

iu	*gun-diu*	'liver'	*an-yiuk*	'honey'
			garri-marne-biwkge	'we bend it' (MM)
			man-yiwku	'plant sp.' (E)
eu	*an-djeuk*	'rain, raincloud'	*deu-deu*	'dollarbird'
au	*bayaumei*	'she got a child'	*yaukyauk*	'young girls'
	lauk	'stone-tipped spear'		
ou	*garnbouh*	'whip snake'	*an-bouh*	'seasonal swamp'
	gun-douk	'biceps muscle'	*badjoukgeng*	'(s)he crossed it'
	duwowh	'common koel' (E)	*korrowkkorrow*	'kookaburra' (E)
	gun-djoubdjurd	'occiput'		
ei	*bamei*	'(s)he got it'	*yingeibu!*	'Say its name!'
	al-beiwurd	'our daughter'	*ganweibu!*	'Give it to me!' (k.k.)
ai	*maih*	'animal'	*barai*	'(S)he should go!'
	malaiwi	'tomorrow'		
oi	*al-goigoi*	'promiscuous woman'	*woibuk*	'true'
	gun-boi	'cooking stone'		
ui	*barui*	'it got cooked'	*guluibirr*	'saratoga' (fish sp.)
	gun-dembui	'special kinship vocabulary'	*badjakdui*	'it rained'
			kuluyhkuluy	'tawny frogmouth'

Diphthongs contrast on the one hand with pure vowels and on the other with sequences of two vowels separated by a glide:

Table 2.2: Contrast between diphthongs, pure vowels and V+glide+V

V		V₁V₂		VGlideV	
e *gabame* 'it shines'		ei *bamei*	'(s)he got it'	eyi *badjobkeyi*	'he was chopping it'
o *ganwo* 'give me!'		ou *garnbouh*	'whip snake'		
		au *yaukyauk*	'girls'	awu	*nawu* 'that one'
					yawurrinj 'youth(s)'
		ui *badjakdui*	'it rained'	uyi	*djama badjakduyi* 'it didn't rain'

Turning now to their phonemic status, there are two pieces of evidence for treating them as sequences of vowel plus glide, rather than as unitary diphthong phonemes.

The first piece of evidence comes from reduplication patterns. There are a number of reduplicative and retriplicative processes (see §3.6), most of which involve left-copying some variant of an initial CV- sequence. If the diphthong were a single composite segment, we should expect the entire diphthong to be copied; if it were two segments, only the first should be copied. In each case, it is just the first segment that is copied:

CV- reduplication:

-yau 'child (esp. in derived senses)' → *-ya-yau* 'children' (e.g. Dj *gun-nguk-yayau* 'udder' [IV-guts-children]; W *kun-bid-yayaw* 'three middle fingers' [IV-hand-children]).

-beywurd (W) 'child (of male)' → *-be-beywurd* 'children'

CVhCV- retriplication:

-bouk 'seasonal swamp' → *an-boh-bo-bouk* 'swampy riverine area' (*an-bouh-bou-bouk)

Iterative reduplication; pattern (d) (§9.4.2), from an inflected monosyllabic stem of form CV(C), forms a reduplicative prefix CVNV-:

-mei 'getPP' → *-mene-mei* 'ITER-getPP' (*meinei-mei)

The second piece of evidence comes from phonotactics, in that the semivowel has the same positional possibilities as other sonants in the coda. As we shall see in §2.4 the basic syllable structure is CV(non-nasal sonant)(stop/nasal), with a maximum of one segment able to fill each of the two syllable positions. However, we find that diphthongs are incompatible with the non-nasal sonant position being occupied: within rhymes we get sequences like *owk* (e.g. *djowkke* 'cross') or *uyk* (e.g. *bidkuykmerren* 'make prints by spraying ochre over an outline of one's hand'), comparable to *olk* or *urrk* (e.g. *kunbolk* 'country' or *burrk* 'body'), but sequences like *owlk or *uyrrk are impossible. As with other sonants, the *y* and *w* closing diphthongs are also incompatible with apical stops in the same coda, so that the absence of such combinations as *yd and *wd parallels the impossibility of sequences such as *ld. Again this parallel can be readily explained if the second element is seen simply as a semi-vowel filling the sonant slot of the coda. (Note that this formulation does not rule out the possibility of there being additional constraints on coda sequences where the first element is a semivowel.)

It is possible that some of the *y*-final diphthongs, at least, derive from old sequences of vowel plus palatal stop, or vowel plus palatal nasal plus glottal stop. First note that *y*-final diphthongs are even more constrained phonotactically than the *w*-final ones: except for the root *kuykmerrinj*, given above, they are never followed by a further consonant within the syllable, whereas *w*-final diphthongs, as we have seen, can be followed by any non-coronal stop.[3] The only exception to this generalisation involves syllable-final glottal stops, as in W *weleyhweleyh* 'red-winged parrot' and W *mayhmayh* 'birds' and glottal stops have extra phonotactic possibilities in any case, as will be discussed in §2.4. This phonotactic gap would be explained if we assume *Vy* reflects earlier *Vdj* or *Vnj* by lenition, since both of these segments are syllable-final.

To establish this hypothesis we need cognates in *Vdj* or *Vnj*. So far I have just a few examples: Ngandi *ngij* 'name (n.)' and Ilgar *-ngijbunggu* 'name (v.)', corresponding to W *kun-ngey* 'name' and *ngeybun* 'name'; BGW *mayh* 'animal' to Dalabon *manjh* 'animal'; BGW *malaywi* 'tomorrow' to Maung *malanybi*.

Further language-internal evidence comes from sporadic alternations like *bodjunjhme* 'squirt water' (as recorded by Ken Hale for Kunwinjku) with the form *bodjuyhme*, also attested.

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3 This is restricted to tautosyllabic clusters: *Vy* may be followed by any stop that initiates a new syllable, as in *na-woy$do* 'sugar glider', *a-ngey$bun* 'I name it', *al-bei$wurd* 'our daughter'.

2.3 Consonants

Table 2.3: Consonant phoneme inventory

		Place of Articulation					
		Peripheral		Apico-		Lamino-	Glottal
		Bilabial	Velar	alveolar	retroflex	palatal	
Manner of Articulation	Short stop	p (b)	k (k)	t (d)	ʈ (rd)	c (dj)	ʔ (h)
	Long stop	pː (bb)	kː (kk)	tː (dd)	ʈː (rdd)	cː (djdj)	
	Nasal	m (m)	ŋ (ng)	n (n)	ɳ (rn)	ɲ (nj)	
	Lateral			l (l)	ɭ (rl)		
	Rhotic			r (rr)	ɻ (r)		
	Semi-vowel	w (w)				j (y)	

Table 2.3 sets out the consonant phoneme inventory. The most suitable IPA symbols are given in bold, followed by their representations in Kunwinjku orthography, which is the only one with a one-to-one mapping of graphemes to phonemes. Note that the class name 'rhotic' is used to group the apico-alveolar rhotic **r** (a trill or tap) and the apico-retroflex ɻ (a continuant).

The long-stop series and the glottal stop, are restricted in distribution. Long stops only occur intervocalically or in the environment V(Non-nasal sonant)_V (§2.3.1). Glottal stops only occur syllable-finally. Harvey (1991) presents cogent evidence that in a series of Arnhem Land languages the glottal stop should be treated as an underspecified autosegment linked to the syllable and I will assume this analysis for Bininj Gun-wok as well, though the only language-specific phonological evidence is its anomalous phonotactics: it is the only stop that can follow nasals in the coda position (§2.4). The flap *rr* does not occur word-initially and can be morpheme-initial only when derived from *d* by morphophonemic alternation (§3.1.1).

The three orthographies differ in their treatment of the stops. Since there is no phonemic voicing difference this frees two sets of English graphemes (*b, d, g; p, t, k*) for use and different selections from this set have been made. The two primary considerations shaping orthographic choices here have been (a) the differential distribution of phonetic (as opposed to phonemic) voicing: short stops tend to be voiceless syllable finally and voiced syllable initially and long stops to be always voiceless; and (b) the need to avoid the orthographic confusion that using *g* for the velar stop creates when dealing with the distinct phonemic sequences /nk/, /ŋ/ and /ŋk/.

The Kunwinjku orthography, by using *k* for the velar stop, solves (b), since the three relevant sequences are written *nk*, *ng* and *ngk*. This leaves it with a mixed set of voiced and voiceless symbols (when pronounced with their English values) and the drawback (frequently cited by linguistically naive English-speaking critics of the orthography) that what is phonetically a voiced velar stop, as in the language name Kunwinjku, phonetically [gɔnwiɲgu], gets represented by a voiceless symbol. A further disadvantage of this orthography (though rarely mentioned) is that all long stops bar the velar are phonetically voiceless but written with doubled voiced symbols, e.g. *kaddum* 'peak', phonetically [gatːɔm].

The Gun-djeihmi orthography, as regards its treatment of consonants, departs from Kunwinjku by overdifferentiating the velar stop, writing *g* syllable initially and *k* syllable

finally, e.g. *guk* 'body' (written *kuk* in Kunwinjku), phonetically [gɔk]. This brings the pronunciations of the velar stop symbols closer to English and incidentally solves another problem by making it possible to distinguish long stops from doubled stops (cf. *bukkang* 'I showed you' /pukːaŋ/ and *nakimukgen* 'of the big one' /nakimukken/); the marginal existence of these contrasts is discussed in §2.3.1. On the negative side, the Gun-djeihmi orthography opens up ambiguities in the nasal plus velar stop sequences, since orthographic *ng* can now be /nk/ or /ŋ/; this must then be solved by inserting either a hyphen or a dot between the n and the g when these are separate phonemes (e.g. *an-gang* 'he carried me', *baman.gang* 'he fell').

The Manyallaluk Mayali system, based on an orthography developed earlier for Jawoyn, overdifferentiates short stops, writing them voiced syllable initially and voiceless syllable finally: thus *gunbart* for 'knee' (phonetically [gunbaʈ]), which would be spelled *kunbard* in Kunwinjku and *gun-bard* in Gun-djeihmi. This means that like Gun-djeihmi, but unlike Kunwinjku, sequences of apical nasal plus stop can be confused with the velar nasal. It writes long stops as if they were geminates, e.g. *bukgang* 'I showed you' or *gatdum* 'peak' (see last paragraph); this loses the (marginal) advantage of distinguishing long from doubled stops, but brings the phonetic values of all long stops close to how a naive English speaker would pronounce the letters. In addition, it writes the palatal stop as *j* syllable initially and *tj* syllable finally and the palatal nasal as *ny*.

In short, each orthography has minor imperfections, though in practice one only rarely needs supplementary notations to show the correct phonemic transcription. The following array shows how stops are represented in all three orthographies; x, y means 'x syllable initially, y syllable finally'; for each orthography, the first line gives the short stops and the second the long. Note that some (though not all) doubled digraphs are simplified, e.g. *rdd* instead of *rdrd*.

Kunwinjku	b	k	d	rd	dj	h
	bb	kk	dd	rdd	djdj	
Gun-djeihmi	b	g, k	d	rd	dj	h
	bb	kk	dd	rdd	djdj	
Manyallaluk Mayali	b, p	g, k	d, t	rd, rt	j, tj	'
	pb	kg	td	rtd	tjj	

NOTES ON PHONETIC REALISATION   We have already noted the tendency for stops to be voiced syllable initially and voiceless syllable finally; this applies in all dialects. It is a tendency, rather than an absolute requirement, so that *kuk* 'body' may be pronounced [kɔk] as well as the more usual [gɔk]. Again without being an absolute generalisation, there is a tendency for speakers from more easterly dialects to use the voiceless syllable-initial pronunciation more often.

In Gun-djeihmi only, there is frequent intervocalic lenition of /k/ to [ɣ], so that *agarrme* 'I have it', for example, phonemically /akarme/, is often pronounced [aɣarme] and *ragul* 'red-eyed pigeon' is often pronounced [ɹaɣul]. Particularly in Kuninjku, word-final /ŋ/ often nasalises and diphthongises the preceding vowel and may even be omitted phonetically, leaving the preceding nasalisation as a cue to its underlying presence; *anmarneyimeng* '(s)he told me', for example, is typically realised as [anmaɳeyimẽŋ] or [anmaɳeyimẽ$^{\eta}$ŋ] but also as [anmaɳeyimẽ] or [anmaɳeyimẽ$^{\eta}$]. Stops are usually unreleased syllable finally, thus [ŋat'] for *ngad* 'we, us'. The apico-alveolar rhotic tends to be a voiceless trill when it is the first element of a consonant cluster (e.g. [guɹur̥k] *kururrk* 'in the cave; inside') and be a tap

intervocalically (e.g. [ŋare] for *ngarre* 'let's go'), but in rhetorical or bombastic speech a voiced trill pronunciation is extended to intervocalic environments as well. Apart from these particularities, consonants have the pronunciation corresponding to the phonetic symbols used to represent the phonemes in the consonant chart. Specific problems involving the realisation of retroflex segments will be discussed in §2.3.2.

The following minimal or near-minimal pairs illustrate key contrasts of place and length:

RETROFLEX vs ALVEOLAR

gun-bard	'knee'	*bad*	'stone, rock' (E)
		badbong	'rock wallaby'
ngard	'little short-necked turtle'	*ngad*	'we, us'
an-gord	'shit'	*an-god*	'giant paperbark'
malkno	'skin, subsection' (E, MM)	*marlkno*	'liver' (E, MM)
garnbouh	'common tree snake'	*ganbom*	'you hit me (past)'
gun-burn	'ankle'	*ngunbun*	'(s)he hits you'
kon-no	'spike' (E)	*korn-no*	'crotch' (E)
gu-labbarl	'billabong, swamp'	*gabbal*	'flood plain'
gun-berle	'dew'	*gukbele*	'white-bodied, white person'
gun-borlo	'hollow left by uprooted tree'	*na-bbolo*	'man who is father to one of us and father-in-law to the other'

ALVEOLAR vs PALATAL

dangnud	'foul-mouthed'	*djang*	'dreaming, dreaming place'
arridoukge	'we go bang'	*arridjoukge*	'we cross'
gun-god	'paperbark'	*gun-godj*	'head'
gun-mud	'body hair, fur'	*gun-mudj*	'gall'
an-nameng	'he made me'	*an-njamed*	'what (vegetable class)'
gun-djen	'tongue'	*djenj*	'fish'
gandji	'jabiru' (E)	*ganjdji*	'inside, under'

PALATAL vs VELAR NASAL

gunj	'kangaroo'	*an-gung*	'honey'
gabanj	'it stinks'	*gabang*	'it's cheeky, dangerous'
njamed	'what'	*ngamed*	'whatsisname'

PALATAL vs RETROFLEX

an-dedj	'crotch'	*an-berd*	'penis'
an-benj	'firestick bush'	*an-bernbern*	'ghost gum'

GLOTTAL vs ZERO

berlu	'aunty'	*berluh*	'aunty (vocative)'
gun-worr	'leaf'	*gun-worrh*	'fullness, satiation'
gun-mil	'slice of yam'	*gun-milh*	'forehead'
larr	'sandpaper fig'	*an-larrh*	'callitris pine'
mani	'money'	*manih-mani*	'beads'

GLOTTAL VS OTHER STOPS

yidjuhme	'you swim'	*yidjudme*	'you stick it in'
		yidjukme	'you spit' (E:D)
an-bolh	'track, pad'	*gu-bolk*	'place'
yiyahwurd	'you are small'	*yiyakwo!*	'finish it!'
gabarrhbun	'it is dawning'	*gabarrkbun*	'(s)he wraps it'

2.3.1 The stop contrast

Like most other languages in Arnhem Land, including the Maningrida family, the Yolngu subgroup of Pama-Nyungan and virtually all the Gunwinyguan languages, Bininj Gun-wok has two stop series, whose primary phonetic distinction is in length.[4] The short stops are positionally unrestricted, while the long stops are restricted to intervocalic positions, though with the possible interposition of a non-occlusive consonant (i.e. liquid or glide) between the preceding vowel and the stop. Examples of minimal or near-minimal pairs are:

gabalbun	'he hits away'	*gabbal*	'floodplain'
gun-djabu	'fish trap'	*djabbo*	'orphan; northern quoll'
gadi	'on top'	*gaddum*	'peak'
manjdjurdurrk	'quiet snake'	*gun-durddu*	'heart'
gun-badjorr	'foot' (GG)	*ngunbadjdje*	'(s)he punches you'
garrolgan	'he flies'	*garrolkkan*	'he gets up'
gugun	'on the right'	*gukku*	'water'
ragul	'red-eyed pigeon'	*kun-djakku*	'left hand'
njarlgan	'archer fish'	*njarlkkan*	'tree orchid sp.'

Long stops are unrestricted with respect to their position in the foot. Most commonly they begin the second syllable of disyllabic roots:

dd	*ngudda*	'you'
kk	*gukku*	'water'
rdd	*birddu, birddurrk*	'quartz'

But this is not obligatory. There are examples of fortis consonants in trisyllables, in which they may initiate either the second or the third syllable:

búlubbi	*'eriosema chinense'*
an-bíkkurrudj	*'buchanania arborescens'*

They may also initiate the third syllable of a tetrasyllable:

djálakkiradj	'wire spear'

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4   There has been considerable debate about the best phonological treatment of this contrast in Arnhem Land languages, which has been analysed in terms of voicing (e.g. Glasgow 1981), fortis/lenis (e.g. Heath 1978; Merlan 1983) and geminate/singleton (McKay 1975, 1980, 1984; Baker 1999), in addition to the length analysis given here. An instrumental phonetic study by Butcher (1990) found length to be the only reliable phonetic correlate of the contrast in languages of the Gunwinyguan, Maningrida and Yolngu groups. In a number of languages of the Daly River, by contrast, there is a voicing contrast and in these languages the contrast is not restricted to intervocalic position.

Just a few words show variation between short and long stops. 'Rock', always pronounced *kunwardde* in eastern dialects, varies between *gun-warde* and *gun-wardde* in Gun-djeihmi; conversely 'my, for me' always has a short stop in Gun-djeihmi (*ngarduk*), but varies between short and long stops in Kuninjku: *ngarduk ~ ngardduk*. The interjection 'ow!' is heard both as *warddaw* and *wardaw*, with no clear dialect distribution yet recorded.

The situation is further complicated by the fact that there is a phonetic contrast between long stops and geminated stops,[5] though the latter must straddle a morpheme boundary, whether it result from reduplication, affixation or compounding. Whereas phonemic long stops are realised phonetically as long, voiceless and tense, geminated stops have a clear double articulation, with voice onset appearing roughly halfway through the combined closure period, though there may be voicing throughout the entire closure.[6] Thus in *Daddubbe*, the name of a malignant spirit, the *dd* is a double stop (resulting from the compounding of *dad* 'leg' with *dubbe* 'malfunctioning'), whereas the *bb* is a long stop; phonetically this is realised as [datdupːe ~ daddupːe]. Similarly, in *guk-gurduk* 'Aboriginal person', a compound of *guk* 'body' and *gurduk* 'black', the medial velar sequence is typically pronounced [kg], whereas in *gukku* 'water', which is monomorphemic, there is just a single long velar stop, pronounced without voicing: [gukːu].

In the case of verbs comprising a stop-final theme plus a prepound beginning with the same consonant (see §8.2.1), there is some variation in whether the long or the geminate pronunciation is heard, basically depending on how obvious the morpheme boundary is.[7] In verbs like *bukkan* 'show' or *bekkan* 'hear, listen, understand', in which the theme *kan* 'carry, take' can be isolated by morphological analysis but the first elements *buk* and *bek* are cranberry morphs with no existence outside the compound, only the long stop pronunciation appears. But in a verb like *bakbakke* 'break into bits', in which the morpheme boundary with *ke* is clear both from the presence of other verbs with the same theme (e.g. *bakme* 'break (intr.)'), but also from the reduplication of the prepound to *bakbak*, only the geminate pronuncation is heard.

In the Gun-djeihmi orthography the distinction between geminate and long stops is shown, at least for velars, by the choice between *kg* and *kk*: *bekkan* and *bukkan* but *bakbakge*. In the other orthographies this distinction is not made, but will be shown here where relevant by an interposed dot (e.g. *bakbak.ke* in the Kunwinjku orthography), though this device will not be used when morpheme divisions render it unnecessary.

Despite the existence of a phonetic contrast between long and geminate stops, there are some tantalising similarities between the distribution of long stops and of stop clusters when one examines their phonotactic distribution, which could be taken as evidence that long stops are simply geminates that are not separated by a morpheme boundary.

We have already mentioned that long stops cannot be word-initial; in this they resemble stop clusters.

Turning to the question of what consonants may precede long stops, we find the set is restricted in two ways.

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5   Such a three-way contrast is also found in Warray: see Harvey (1986).

6   The following discussion of the phonetics is based on auditory data only; clearly an instrumental study would be rewarding.

7   And there may be interspeaker variation. The word for 'rock possum' was pronounced *djorrkkun* by Toby Gangele, but *djorrkgun* by Minnie Alderson. This does not have an obvious segmentation, though *djorrk* occurs in some dialects with a meaning 'trunk, body'.

Firstly, only a single consonant may come between the vowel and the long stop and it must be a non-occlusive (i.e. a liquid or a semivowel). Examples illustrating the possible sequences are given in Table 2.4.

The attentive reader will notice a second generalisation evident in the above data. The long stop must be a non-apical. In fact it is mostly a non-coronal; the only examples with a palatal are the four given above (*yakirrdjdja, nawordjdja, Burlarldjdja* and *ganbaldjdja*). Table 2.5, giving the number of examples of each combination counted (roots only counted once) in Garde's Kuninjku dictionary, gives an idea of the relative frequency of the various combinations. The proportions given express the ratio of cluster attestations with a particular stop to total attestations of that stop, thus there are 45 roots with long *bb* in the Garde corpus, of which 16 occur in clusters with a preceding consonant.

Table 2.4: Possible sequences of consonant + long stop

With *rr*	*wurrbbarn* (Dnj)	'emu'	*yarriwurrkkarr*	'matri-phratry name'
	yakirrdjdja (I)	'milkwood tree'	*djorrkkun*	'possum sp.'
With *r*	*djarkkadj*	'freshwater shell sp.'	*birbbarrh*	'water lily' (MM)
	nawordjdja	'flood water' (E)		
With *rl*	*djurlbbun*	'cocky apple'	*njarlkkan*	'paperbark orchid'
	gun-murlbbui	'meat' (k.k.)	*warlkkarra* (I)	'ox-eye herring'
	Bularldjdja	'clan name'		
With *l*	*dolbbe*	'bark of ghost gum'	*ngalkka* (I)	'that (fem)'
	mulbbamh (I)	'crammed together'	*ngarridolkkang*	'we got up'
	ganbaldjdja	'toothless catfish'		
With *w*	*Nakiwkkani* (I)	place name (sole example)		
With *y*	*man-wuybbinj* (Iːk.k) 'honey'		*marraykka* (I)	'female mythological figure'

As Table 2.5 shows, the greatest number of clusters involving long stops have velar stops, followed by bilabial stops, though in terms of percentage the labial stop participates in clusters more often than the velar. Palatals are a long way behind in terms of cluster frequency and there are no clusters at all with a long apical stop.

Table 2.5: Count of stop combinations in clusters

	N (%)		*rr*	*r*	*rl*	*l*	*w*	*y*
bb	16/45 :	36%	3	0	6	6	0	1
dd	0/33 :	0%	0	0	0	0	0	0
rdd	0/35 :	0%	0	0	0	0	0	0
djdj	3/26 :	12%	1	1	1	0	0	0
kk	26/130:	20%	11	0	8	5	1	1

Now this distribution parallels that found with codal clusters; we shall see in §2.4 that *rrk, rlk, rrb, lk, wb* and *yk*, for example, are all possible coda clusters, but *ld, rld* and *rrd* are not,

though each of the latter is a possible sequence across a syllable boundary. The impossibility of nasal plus long-stop clusters likewise parallels that found with codal clusters: the only nasal plus stop clusters in codas have the glottal stop as their second element. A robust generalisation, in other words, is that a given sonant can only occur in a cluster with a long stop if it can also occur as a coda cluster with the corresponding short stop; *rrk* is a possible coda cluster and *rrkk* a possible long-stop cluster, while *ld* is an impossible coda cluster and *ldd* an impossible long-stop cluster, for example. The only exceptions to this correlation are the rare cases of clusters involving long palatal stops, which lack corresponding sonant plus short-stop codal clusters.

The above discussion should make it clear that there are significant parallels between the phonotactics of long stops and the phonotactics of clusters. This suggests that the correct phonological treatment of long stops would be as geminates, thus inheriting the generalisations about cluster phonotactics.[8] This analysis would also account for the likely source of many long stops (such as in *bukkan* and *bekkan*, discussed above) as old geminates whose separating morpheme boundary has been lost.

However, this analysis is not without problems:

(a)   It clashes with speaker syllabifications, which do not split long stops across the syllable boundary. Unlike geminates, which are split when speakers syllabify them (e.g. *dalk...ken* 'dingo'), long stops are confined to the syllable onset, e.g. *gu...kku* 'water'; in this rather artificial pronunciation the long stops are sometimes voiced.

(b)   Stop clusters never begin a morpheme, but in two cases long stops are morpheme-initial. One of the demonstrative series in eastern dialects has the forms *nakka* 'that (masc)', *ngalkka* 'that (fem)' and *makka* 'that (veg)'; this is segmentable into gender prefix plus root *-kka* and significantly the vegetable prefix is *ma-* rather than the expected *man-* (§5.5), thereby avoiding the banned sequence nasal plus long stop. The other exception is a pair of words from the Kun-derbi kinship vocabulary (§1.5.2), used by a husband and wife about the person who is parent of one of them and parent-in-law of the other: *nabbolo* for father(-in-law) and *ngalbbolo* for mother(-in-law); again this can be segmented into gender prefix *na-/ngal-* plus *-bbolo*.

(c)   it fails to account for why there is no set of long nasal stops, since geminate nasals are perfectly permissible (e.g. *ngannang* '(s)he saw me'.

(d)   to the extent one can account for the historical origins of long stops, it explains only part of the data.

It is certainly true that many long stops appear to derive from old clusters, which at some stage of their development would have assimilated to geminates. Examples are *bukkan* 'show' and *bekkan* 'hear, understand, know', discussed above,[9] the female subsection terms *ngarridjdjan* and *kodjdjan*, etymologically made up of roots *ngarridj* and *kodj(ok)-* plus

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[8]   A further argument for this position might come from the distribution of retroflex disagreement (§2.3.2), which is vanishingly rare in the case of two successive short consonants, but possible in the case of a sequence of short consonant then cluster or the reverse (e.g. E *man-kurlunduh, barndol*). This can be accounted for by saying that an apical onset can take its retroflexion value from a preceding syllable coda oly if that coda is also apical. A similar argument could then be made for a disagreeing retroflex sequence in which one is a long stop (e.g. *Burddal, man-burluddak*). In each case the disagreement could be said to result because gemination allows a retroflexion value to pass to an adjoining syllable, as in homo-apical clusters.

[9]   In the case of *bekkan* a possible source is from the unattested *bengh-kan* [mind-carry] by denasalisation; this would leave it as a doublet of *bengkan* 'know'.

feminine marker *-djan*, though in this case the attachment of the feminine suffix probably took place in Dalabon (§1.4.2.2) so the forms were most likely borrowed with the long stops already in place and the long stops in Kuninjku resulting from assimilation of place in such verbs as *kodjdjeyo* 'sleep' (< *kodj.djeyo* < *kodjkeyo*) or *murridjdje* 'break' (< *murridj.dje* < *murridjke*), whose western dialect cognates have the assimilated form.

However, there are at least four other sources of long stops.

Firstly, some long stops occur at reduplication boundaries, where stop-initial stretches or one or two syllables are repeated, for example *mabarrabbarra* 'rock pigeon' (I) and *korlokkorlo* 'shotgun; masturbation' (I). This is not the usual pattern of disyllabic reduplication (§3.6.4), which normally inserts a glottal stop (e.g. *an-gaboh-gabo* 'area with many billabongs'). Rather, reduplication in which the stop is lengthened at the boundary is found with words in which the reduplicand has no morphemic status (there is no morpheme **barra*, **korlo* or **berreb*), including in such Macassan loanwords as *balabbala* 'table' (< *bala?bala?*) and *burrubburru* 'scabies' (< *puru-puru*). In such cases it seems that long stops are a boundary-marking phenomenon rather than a result of cluster simplification.[10]

Secondly, long stops appear in large numbers of loan words in which the stop is a voiceless intervocalic in the donor language. This may be because the donor language has a voicing contrast, as in English (baccy (tobacco) > *bakki*, bullocky > *bulikki* 'cow') or Makassarese (*padomang* > *baddumang* 'glass', *botolo?* > *budjdjulung*,[11] *kappala?* > *kabbala* 'boat', *pacco* > *an-badjdju* 'wild potato'); note that Makassarese has both voicing and gemination and geminate and single voiceless stops both end up as long stops in Bininj Gun-wok. It may be because the donor language has a length contrast, with length conditioning voicelessness, as in Yolngu (Yirridjdja > Yirridjdja). Or it may be because the donor language has just a single stop series, but with voiceless realisations intervocalically, as with Iwaidja /makumpu/ 'wind type' > *makkumbu*).[12]

Thirdly, there are a good number of words in which the long stop appears to be reconstructable to a great time depth, owing to the presence of cognate long stops in relatively distant languages. Harvey (forthcoming) contains a number of examples; here I give just two. The crucial evidence for time depth comes either from languages in other families with a long–short contrast (such as Gorrgone and Burarra in the Maningrida family), or from distantly related languages that once had such a contrast and preserve traces of it historically, such as Nunggubuyu in which short stops lenite and long stops descend as (unpaired) stops. The form *kabbal* 'salt-pan, flood-plain' (and thence a relatively open area) has extremely widespread cognates in Australia (e.g. Kayardild *kabar-a*, Gimbi-yu *ap:al*, Gidabal *gabal* 'scrub, open forest', Girramay *gabal* 'sand'); it appears with a long stop in those languages that have them (e.g. Gorrgone *gapal* '(flood) plain', Ritharrngu *gapala* 'clearing, open plain'; in both these orthographies *p* represents a long bilabial stop) and as a stop rather than a glide (short *b* would lenite to *w*) in Nunggubuyu *abala* 'plain, open area'. The verb *badjdje* 'punch, hit' appears with a long stop in a number of other Gunwinyguan languages (e.g. Ngalakan *bac:i*, suppletive form of *buyji* 'hit each other'; Ngandi *bacca* 'to

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10 One could argue that they result from the assimilation of an underlying glottal stop (e.g. *korlokkorlo* < *%korlohkorlo%*,) but one would then have to set up a rule allowing the assimilation of the glottal stop across nonce boundaries but not across regular morpheme boundaries, as in *an-gaboh-gabo*.

11 On the accretion of final *-ng* in Macassan loans see Evans (1992a).

12 At this stage we know very little about Iwaidjan historical phonology, but it is clear there has been lenition of stops initially and medially (see Evans 1997b, 1998 for some initial observations). This raises the possibility that some of the intervocalic stops in the Iwaidjan languages descend from long stops, so that Iwaidjan *makumpu* may be historically *mak:umpu* and the loan may stem from this period.

hit'), with an unlenited stop in Nunggubuyu (*baja ~ waja*, a compound variant of 'to hit') and with a long stop in some languages of the Maningrida group (e.g. Burarra *bacha* 'fight each other', where *ch* is a long palatal stop). So although we are still far from having a definitive reconstruction, the most plausible interpretation of the evidence is that the common ancestor of Gunwinyguan, Nunggubuyu and the Maningrida languages had a long–short contrast and that a fair number of long stops in Bininj Gun-wok simply preserve ancestral long stops.

These three other sources of long stops (reduplication, borrowing of voiceless or long stops and descent from original long stops) thus make it implausible to treat all synchronic long stop as geminates. Rather, a fuller account sees geminates as one among several sources.

The relevance of (a) to (d) above is that although there are suggestive resemblances, in terms of phonotactics, between the distribution of long stops and sequences of two stops, these parallels are not complete and an ideal formal treatment should capture the phonotactic similarities without having to treat long stops as geminates.

2.3.2 Retroflexion as syllable prosody

Phonological analyses of Australian languages normally treat retroflexion as a segmental feature of apical consonants. However, retroflexion in Bininj Gun-wok is better understood in autosegmental terms, as a prosodic feature whose basic domain is the syllable.

There are four reasons for arguing this, outlined below. For ease of exposition I use phonemic transcriptions in the next few paragraphs, marking retroflexion on every segment it appears on. (All three orthographies are rather inconsistent in their representation of retroflexion, typically marking it only once per syllable but with some vacillation about where it is marked when more than one locus is possible.)

Firstly, although retroflexion can be realised phonetically on a syllable-initial segment (e.g. /gomḍaw/ (I) 'long-necked turtle'), a final segment (e.g. /gunbaḍ/ 'knee'), a vowel (e.g. /be'g/ 'deaf adder'), or various combinations of the above (e.g. /ḍoḍ/ 'louse', /galgːi/ 'salmon-tailed catfish' (E:D)), it only needs to be marked once on any syllable and once a syllable is marked as retroflex the loci of retroflexion will be predictable: any apical segment in the syllable and the vowel. Retroflexion is more clearly audible on the vowel in monosyllables, which are phonetically lengthened, as discussed in §2.1.2.

Within a syllable, all apical stops and nasals agree in retroflexion. Thus there are words like /ṭiṭ/ 'moon', /ṭoṭ/ 'louse' and /ṭaɳkiʔ/ 'near' on the one hand and /nin/ 'small bird', /nan/ 'I saw you' and /tatkujeɲ/ 'long-legged' on the other, but no syllables like */ṭit/, */tiṭ/, */naɳ/ or */ɳan/. The only exceptions to such 'retroflexion agreement' occur when two apical consonants are linked across a morpheme and syllable boundary (see below). Note also that the retroflex continuant /ɹ/ does not participate in these effects and hence we find words like /naɹin/ 'snake'.

Secondly, it follows that syllables may be retroflexed even when there is no apical segment, with the retroflexion manifested on the vowel in rather variable ways. For example, the word for 'deaf adder' is pronounced [bɛˈk], [bˈɛk], [bɛˈɛk] and [bɛ̢k] by different speakers, or even the same speaker. Such variability is not found with other segmental phonemes and it is noteworthy that literate speakers have difficulty placing the *r* when spelling these words; the only other sound with which they have similar difficulties in writing is the other autosegment, /ʔ/.

Thirdly, no other consonantal segments allow their leading phonetic cues to pass through a glottal stop, but retroflex stops can, as in /kaʔʈi/ '(s)he is standing, exists', phonetically [ɡaʔɖi].

Fourthly, when the morphophonemic rule of flapping (§3.1.1) removes one segment that can exhibit the contrast, retroflexion remains on other eligible segments if the original stop was retroflex: /kari-ʈame/ (E:D) 'we flavour it with herbs' (where the initial segment and the vowel are retroflex) /yi-ɽame/ 'you flavour it with herbs', or /kari-ʈaɳʔpun/ 'we hit them close up' vs /yi-ɽaɳʔpun/.

Taken together, these four factors suggest that retroflexion is an autosegment associated with the syllable and manifested clearly on any apical stops that may be present, as well as (more variably) on any vowel. The autosegmental representations these facts suggest are illustrated in 2.1; the retroflexion prosody is represented by ®. In articulatory terms, retroflexion involves a gesture of the tongue-tip, which is independent of the movement of the whole tongue. The timing of this gesture may be synchronised with the occlusion by the tongue, may immediately precede or follow it, or may be slower — in this case, apparently, at syllable pace.

2.1

[ɖiɖ]   [dad]   [ɖaʔ]~[ɖaˈaʔ]~[ɖˈaʔ]
'moon'   'thigh'   'piece of stringybark'
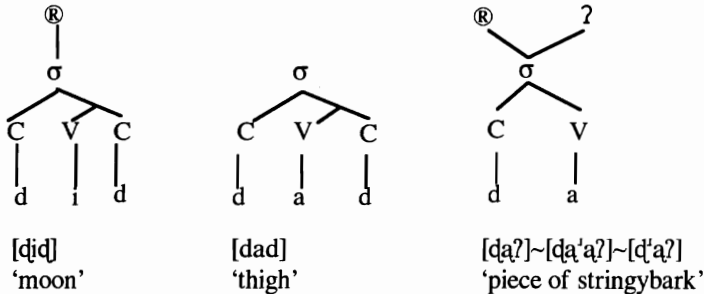
As mentioned above, the only exception to retroflexion agreement occurs in cases where an apical nasal plus stop cluster is involved at one end of the syllable; in this case there can be disagreement in the retroflexion value, resulting from the assimilation in point of articulation between the nasal and stop. Consider what happens when the retroflexed /ʈoʈ/ 'louse' is incorporated into the apico-alveolar /nan/ 'sees' and prefixed by the non-retroflexed /ŋan/ '(s)he/me'. Though there is some variability in the resulting pronunciation, the commonest is /ŋantoʈnan/ '(s)he delouses me', in which each of the two syllable onsets assimilates the retroflexion value of the coda of the preceding syllable in retroflexion. Likewise, when the root /ʈuʈːu/ 'heart' is prefixed by the class IV marker /kun-/, the commonest result is /ɡunduɖːu/, with the first /ʈ/ losing its retroflexion through assimilation to the apico-alveolar coda of the prefix. Most such cases arise across morpheme boundaries, but sometimes they occur inside polysyllabic roots, for example are /man-kuɭuntuʔ/ (E:D) 'melaleuca minutifolia', /weɳɖelweɳɖel/ (E) 'plant sp.', /an-winʈilk/ 'various small shrub sp. used for red dye' (Dj) and /paɳʈol/ (E) 'carpet python'.

There is some variability across dialects in how far this process of retroflex assimilation in clusters occurs. Consider the word for the cycad *cycas armstrongii*, spelt *an-dirn.gu* in Gundjeihmi and *man-dirn.ku* in Kunwinjku. In both these dialects the nasal of the second syllable is clearly retroflexed, but the stop beginning the second syllable is not, assimilating to the alveolar articulation of the *(m)an-* vegetable prefix. In Kune, by contrast, such assimilation does not take place and the initial is clearly retroflexed (giving the pronunciation

[mandɟiːŋgu]). Likewise, the name for the *persoonia falcata* tree is [mandak] in Kunwinjku and [andak] in Gun-djeihmi, with the root-initial apical agreeing with the prefix-final nasal in not being retroflexed, whereas in Kune it is pronounced [mandạk], with disagreement of retroflexion in the cluster and retroflexion clearly audible on the vowel. In such cases of retroflex disagreement in a cluster there is a dissimilatory tendency to emphasise the retroflex onset to the point of having rhotic release: [manɖ'ạk].

Table 2.6: Syllabic retroflexion in three syllable environments,
compared over three dialects

Environment	Dialect			Gloss
	Kune	Kuninjku	Gun-djeihmi	
Velar	*kaburk*	*kabuk*	*gabuk*	'dry'
(retroflex	*ngarkme*	*ngakme*	*ngakke* (v.t.)	'drown'
restricted to	√*bork*	√*bok*	√*bok*	'track'
Kune)	√*warkwan*	√*wakwan*	√*wakwan*	'not know'
	-*barng*	-*bang*	√*bang*	'cheeky'
	djarng	*djang*	*djang*	'Dreaming'
	namurng	*namung*	*namu(ng)*	'tree snake'
	berk	*berk*	*berk*	'deaf adder'
Open	√*barme*	√*barme*	√*bame*	'bright, shine'
(retroflex	—	*yiwirmeng*	*yiwimeng*	'kin term'
restricted to	√*warbun*	√*wabun*	√*wabun*	'sing spell'
Kune, with	*borkung*	*bokung*	—	'black bittern'
variation in	*ngorkkowino*	*ngokkowi*	*ngokko*	
Kuninjku)	'night'	'dusk'	'already'	
Glottal-final	√*werhme*	√*werhme*	√*we(r)hme*	
	√*ngerh*	√*ngerh*	√*ngeh*	'heart, breath'
	√*kirh*-	√*kih*	√*gih*	'mud'

In addition to retroflex agreement within the syllable, there is agreement between apical stops and nasals in successive open syllables, suggesting a tendency to maintain the retroflex gesture over a period longer than the syllable when possible. Thus there are words like /ʈaʈːa/ 'brother (of woman)', /paʈːeʈːe/ 'flagellaria indica', /ʈiɳaʈiɳa/ 'cicada' (I), /ʈiriʈiʈi/ 'sacred kingfisher' and /nenikoʈ/ 'goat' (< 'goat'), but none mixing apico-retroflex and apico-alveolar occlusive onsets in adjacent open syllables (though orthographically this is obscured by the regular Australianist practice of not using retroflex digraphs word-initially, so that /ʈaʈːa/ is written *dardda*, for example). Interestingly this constraint does not apply to laterals and there are many examples mixing retroflex and non-retroflex laterals in adjacent syllables: *wularl* (Dj) 'stringybark canoe', *wularla* (I) 'spectacled hare wallaby', *korlele* (E:D) 'lizard sp.', *balurlu* (E:D) 'fish sp.' and *bolorlo* (E:D) *'terminalia grandiflora'*. A possible articulatory explanation is that the horizontal compression of the tongue necessary to articulate a lateral renders the articulatory gesture of the tongue tip less independent than with stops.

As mentioned above, in cases where no consonant in the syllable is apical, syllabic retroflexion may still be realised as a retroflex colouring on the vowel. The environments in which this may occur, however, become more restricted as one moves from east to west.

Comparing just three syllable environments over three dialects[13] — glottal-final, velar-final and open — we find that while Kune attests syllabic retroflexion in all three, Kuninjku loses it before velars (except for the one word *berk* 'deaf adder') and only keeps it variably in the other two environments, while Gun-djeihmi loses it before velars (*berk* is again the exception) and in open syllables, retaining it only in some glottal-final syllables — see Table 2.6.

The BGW dialect data alone does not establish whether vocalic retroflexion is an innovation or a retention. Comparison with other Gunwinyguan languages, however, shows it to be retention, since most of the above words (as well as others not given on the table) are attested with the retroflex segment in such languages as Jawoyn, Rembarrnga and Ngandi (though the sources do not discuss whether it should be treated as a conventional segmental phoneme or a syllable prosody):

VELAR ENVIRONMENT J *burakminj* 'become dry', Ngandi *barng* 'bitter, sour, bad-tasting', J *barang* 'aching, sore, hurt'; J *berk ~ brek* 'bad, dangerous'; J *ngan-bork(-ngayu)* 'tracks'; J *ngan-jarang*, R *djarng* 'dreaming place'; J *mork* 'fly'. (Note also Dj *gun-ngeng* 'pouch of kangaroo', J *ngan-ngerng*)

OPEN-SYLLABLE ENVIRONMENT J *warwu* 'sing, ensorcel', *mur* 'whipsnake'

GLOTTAL-FINAL ENVIRONMENT J *ngerhme* 'have a spell', J *werhma* 'vomit'

2.4 Syllable structure and phonotactics

The phonotactic template for Bininj Gun-wok is essentially monosyllabic. No special phonotactic characterisation is necessary for words of more than one syllable, with three exceptions: the restriction of fortis stops to words of two or more syllables (§2.3.1), the restriction of vocalic onsets to first syllables in the Mayali dialects (§2.4.2) and the availability of *rr* as onset in non-initial syllables, though only between two vowels. There is also a relatively high proportion of closed syllables; on a sample of 138 syllables drawn from the head words of six randomly chosen pages of the Gun-djeihmi–English dictionary, 75 (= 54%) of syllables were closed and 28 (= 23% of all syllables and 37% of closed syllables) ended in a stop (including the glottal stop).

The basically monosyllabic nature of the phonotactics and the preference for closed syllables, gives the characteristic lego-like phonotactic structure typical of the Gunwinjguan languages and contrasts with the majority of Pama-Nyungan languages, which are canonically disyllabic and prefer open syllables. It also explains the virtual absence of rules assimilating place or manner of articulation (see §3.2 for the few exceptions), since concatenations of morphemes so rarely lead to unacceptable phonotactic structures.

In this section, then, we proceed by first examining the phonotactic structure of the individual syllable (§2.4.1), then pass to additional possibilities available at the word-edge in the Mayali dialects through the tolerance of onsetless syllables word initially (§2.4.2); finally we consider what additional restrictions and possibilities arise when syllables are juxtaposed (§2.4.3).

2.4.1 Phonotactic structure of the syllable

The basic syllable structure is:

2.2   C V (L) $\frac{(S)}{(N)\,(h)}$

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[13] At present we lack the detailed cross-dialect word lists that would allow us to expand both the number of dialects and the range of environments (most importantly to final bilabials, but also getting better data on the influence of vowel quality).

Where C is any consonant except h (*ʔ/*) (*rr* is also disallowed word initially), V is any vowel, L is any liquid (l, rl, rr), N is any nasal (m, n, rn, nj or ng) and S is any oral stop.

Syllables may thus begin with any consonant except *ʔ*; when word-initial, *rr* is also disallowed. Syllable finally, all consonants are allowed. The overall sequence in the coda follows the well-known sonority hierarchy: segments decrease in sonority as one moves outwards from the syllable nucleus.

As in most Australian languages, onsets must be simple, i.e. restricted to a single consonant, but there are a couple of marginal exceptions involving initial bilabials followed by liquids (see Evans 1995b for examples of other Australian languages showing this pattern): Kuninjku has a single occurrence of *bl* in the form *namorlblayini* 'renowned hunter' and Kune allows the pronunciation *bredurrkmey* alongside *biredurrkmey* for 'he snatched it away'; in each case the aberrant syllable is stressed. In some words the vowel *i* is shortened in the environment #b_IV# and the following vowel stressed, e.g. *bilibilih* [b̆ilĭbĭlĭʔ] *'acacia auriculoforma'* (E:D).

Two further constraints are needed to prevent the structure in 2.2 from overgenerating.

Firstly, semivowels may also occur, basically in the same slot as the liquids, but only before stops; in other words, non-occlusive consonants (liquids plus semivowels) can come between vowels and codal stops, suggesting a more disjunctive restatement of 2.2 as follows:

2.3 $C \ V \ \dfrac{(C_{<-\text{occlusive}>}) \ (S)}{(L) \ (N) \ (h)}$

Secondly, the positional possibilities of the outer consonantal segments get limited by those employed for the inner ones, according to what Hamilton (forthcoming) has called the 'articulator hierarchy' (Labial > Dorsal > Laminal > Apical), such that successive segments must move leftwards along this hierarchy. This renders sequences like **ln*, **rrd*, or **ydj* impossible within the coda, since the two segments occupy identical positions on the hierarchy; **yd* is excluded, *a fortiori*, because the second segment is to the right on the hierarchy.

In fact this formulation still does not work perfectly. It predicts that the sequences **wb* and **wk* should be disallowed, when in fact they occur and it predicts that sequences of liquid plus palatal nasal (e.g. **lnj*) or liquid plus non-velar nasal plus glottal stop (e.g. **rrmh*) should be allowed, when in fact they are not. But it will serve as an orienting generalisation to guide the more detailed survey of possibilities which we now embark on; more specific constraints that have yet to be brought under general formulations will be noted as we go.

In what follows I do not mark syllable boundaries following open syllables, since any sequence *XVCV* must be syllabified as *XV.CV*, but I mark them with $ elsewhere. The morpheme boundaries given below (e.g. after the class IV prefix *gun-*), entail syllable boundaries.

OPEN SYLLABLES: *CV*   These may begin with any non-glottal consonant and contain any vowel. Examples, combining each vowel with a representative of each manner of articulation, are *ba* 'in order that', √*bele* 'white', *gak$bi* 'north-east, north', √*bo* 'liquid, water', *bu* 'when'; *nja* 'here you are', *baginjeyi* '(s)he might cook', *Njirrinjirr* (place name), *njolobongh$me* 'sing' (Kunkurrng), *njuridj* 'restless fly catcher'; *la* 'and' (W), *an-lerrelerre* 'shrub sp.', *an-lirridji* 'gravelly soil from ridge', *kun-lorre* (W) 'soil, dirt', *Lumaluma* 'mythological giant'; *walabi* 'scoop net', *naweleng* 'man responsible for killing', *wirriwirriyak* 'black-faced cuckoo shrike', *wolewoleh* (Dj) 'late afternoon, dusk', *wuyuk$me* 'doze off'. Examples of open syllables beginning with initial long consonants were given in §2.3.1.

STOP-FINAL SYLLABLES: *CVS* These may end in any (short) stop.

b	*gun-geb*	'nose'
k	*ga-mak*	'good'
d	*gun-dad*	'leg'
rd	*gun-berd*	'tail'
dj	*gun-godj*	'head'
h	*ma*	'time to act!'

LIQUID-FINAL SYLLABLES: *CVL* These may end in any liquid.[14]

rr	*dju$larr*	'freckled monitor'
l	*gun-yil*	'tendon'
rl	*gun-berl*	'arm, wing'
r	*bar$me* (I, E)	'shine'

SEMIVOWEL-FINAL SYLLABLES: *CVW* These were discussed and exemplified in §2.2 under 'diphthongs'. Note that there are no sequences of form *CVWL*;[15] basically semivowels occupy the same coda position as liquids, but are more restricted with respect to the clusters they can form.

NASAL-FINAL SYLLABLES: *CVN* These may end in any nasal.

m	*bawam*	'(s)he went'
ng	*djang*	'dreaming site'
n	*gabun*	'(s)he hits it'
rn	*nawern*	'many'
nj	√*manj*	'smell (usually good)'

SYLLABLES ENDING IN A LIQUID PLUS NASAL: *CVLN* These end in any liquid plus the velar nasal (again the *r* may be better analysed as syllabic retroflexion; in any case it is restricted to eastern dialects in this position).

lng	*an-galng$gi*	'freshwater mangrove *barringtonia acutangula*'
rlng	*gorlng*	'carpentaria palm'
rrng	*-ngurrng$me*	'puff, suck on'
rng	*namurng*	'green tree snake' (E)

As mentioned above, the restriction on place specifications of the final nasal is consistent with the articulator hierarchy. However, there are further unattested combinations whose absence does not follow from the articulator hierarchy, namely sequences of liquid plus palatal or bilabial nasal: there are no combinations **lm*, **rlm*, **rrm*, **rm*, **lnj*, **rlnj*, or**rrnj*. There is a single example of *rnj* in the Kuninjku dialect: *kernj$kernj* 'pulse'.

Because of the overall patterning of semivowels like liquids in the coda position, it is worth pointing out here that there are essentially no codas of semivowel plus nasal (e.g. **yng*, **wm*). The sole exception is the sequence *wn* in the prohibitive particle *yuwn* 'don't', but note that this is also pronounced *yuwun* and *yun*.

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[14] Though on the prosodic analysis of retroflexion outlined in §2.3.2, the *r* in words like *barme* 'shine' in the eastern dialects is analysed as a syllable prosody rather than a segment.

[15] This may be reason the English loan *boil* becomes *boyla*; addition of a vowel allows resyllabification as *boy$la*, which is phonotactically allowable.

SYLLABLES ENDING IN A LIQUID PLUS STOP: *CVLS* These end in any liquid plus a non-coronal stop (i.e. *b*, *k* or *h*).

lb	*dolb$dolb$me*	'pulsate'
lk	*gun-dulk*	'tree'
lh	*gun-milh*	'forehead'
rlb	*marlb$me*	'flashlight'
rlk	*gun-gurlk*	'dirt'
rlh	*barlh$me*	'sweat' (W)
rb	*ngalarb$me*	'swim' (Iːk.k) (only example)
rk	*wark$wan*	'not know' (E)
rh	*kirh$wo*	'make wet' (E)
rrb	*gurrgurrb$me*	'experience twitching in one's body as a signal that some kinsman will arrive'
rrk	*barrk$bu*	'cover'
rrh	*gorrh$ge*	'burst' (v.t.)

SYLLABLES ENDING IN A SEMIVOWEL PLUS STOP: *CVWS* Like the preceding group of clusters involving nasals, these end in either semivowel plus a non-coronal stop (i.e. *b*, *k* or *h*), except that the sequence **yb* is not found.[16]

wb	*gun-djoub$djurd*	'occiput (attested in Dj only; would be written *kundjowbdjurd* in W orthography)'
wk	*kudjewk*	'rainy season'
wh	*dawh*	'amputated' (I)
yk	*bayk$kuyk$kuyk$me*	'(bee) spray honey' (I)
yh	*mayh*	'bird, animal'

SYLLABLES ENDING IN A NASAL PLUS GLOTTAL STOP: *CVNh* These end in any nasal plus a glottal stop.

mh	*mamamh*	'mother's father'
ngh	*gingh$me*	'squeak out of side of mouth'
nh	*abanh$nan*	'I see them now'
rnh	*arridarnh$yo*	'we sleep close together'
njh	*wanjh*	'well, then'

There are two possible examples of *Cvngk* syllables, though these have also been recorded as *Cvngh* and it is not clear which is the correct transcription: *belengk$me ~ belengh$me* 'lick' and *d(r)angk$me ~ d(r)angh$me* 'be drunk'. The exceptional status of the latter can of course be attributed to it being a partly-assimilated English loan. Apart from these, no final nasal-plus-stop clusters are attested.

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16   Oates (1964:15) contains putative examples of *yb* and *ydj*, namely *djawaybmeng* 'he asked' and *ngabeddaydjmeŋ* 'I was initiated' (transcriptions hers). However, these are both mistranscriptions, the first of the sequence *ayh* (which can sound like *ayb* before a following bilabial owing to anticipatory lip-rounding) in *djawayhmeng* and the second of *adj* in *ngaberddadjmeng*; the *y* off-glide is certainly there phonetically, conditioned by a following palatal stop, but phonemically this is a vowel rather than a diphthong.

SYLLABLES ENDING IN A TRIPLE CLUSTER OF LIQUID, NASAL PLUS GLOTTAL STOP: *CVLNh*
The only attested triconsonantal cluster is *rrngh*, which is well-represented in the corpus.

rrngh	*na-gurrngh*	'son-in-law' (vocative)
	ngarnarrngh	'black cockatoo' (E)
	mim$narrngh$narrng	'droop eyes' (I)

Nine other clusters which are still compatible with the sonority and articulator hierarchies are unattested: **lngh, *lmh, *lnjh, *rlngh, *rlmh, *rlnjh, *rrmh, *rrnjh, *rngh, *rmh* and **rnjh*. There are also no triple clusters ending in a stop other than the glottal stop.

VOWEL-INITIAL SYLLABLES IN NON-INITIAL POSITION   Morphophonemic processes of cluster simplification occasionally create vowel-initial syllables. The most important such process is the loss of *w* after nasals in Kuninjku (§3.2.2), which gives such forms as *Kuninjku* from *Kunwinjku* for the language name and *kan-urrhke* from *kan-wurrhke* for 'you're having me on'. No resyllabification takes place, so this results in vowel-initial syllables (*kuninjku, kan$urrh$ke*) In other dialects more sporadic processes of simplification very occasionally produce similar results. In Gun-djeihmi, for example, *%gunrak%* 'fire' has been simplified to *gunak*, syllabified as *gun$ak*. Although the aberrant syllabification is tolerated, the resultant form no longer has its class IV prefix segmented off and *gunak* as a whole is incorporated (see §5.5.2.3) suggesting that while vowel-initial syllables are tolerated, vowel-initial roots (or at least, prefixable roots) are not.

MORPHEME STRUCTURE CONDITIONS   As the previous paragraph suggests, there is a constraint that all morphemes in Bininj Gun-wok must be consonant initial and indeed that morpheme breaks should align with syllable boundaries. In fact, the overwhelming majority of morphemes are simply a string of one or more appropriate syllables conforming to the general phonotactic conditions on syllable structure.

The only exceptions to this generalisation are the following:

(a)   Two verbal prefixes, each comprising a codal consonant: IMMediate *h-* (§11.4.3) and *m-* (§11.2.1). In most cases these can be syllabified with a preceding prefix; in the case of zero prefixation there are special morphological solutions in the case of *m-* (§10.2.4), but none in the case of *h-*, which can then simply not be used.

(b)   Some TAM allomorphs, such as *-y* and *-m* (allomorphs of the past perfective) and *-n* (allomorph of the non-past). These are all syllabified with the preceding *CV* of the verb root. See §9.2 for the verb paradigm.

(c)   Two morphemes beginning with consonants: the demonstrative root *-kka* and the Kunderbi root *-bbolo* 'old parent(-in-law)', both found in the eastern dialects. These were discussed above.

(d)   The reflexive/reciprocal morpheme *-rr-*, which is the only affix consisting just of a syllable-initial consonant and is always followed by a vowel-initial TAM suffix.

For verbal morphemes filling obligatory slots on the verb (i.e. subject and object and TAM) there are further restrictions: they must end in a vowel, liquid or nasal. Examples are *nga-* 'I', *ban-* 'them (object)', *ngarr-* 'we two inclusive', *-m* 'past perfective' (one allomorph). These tighter restrictions also apply to the argument-changing affixes, the comitative *yi-* and benefactive *marne*. Other more lexical morphemes within the verb, such as incorporated nouns or adverbial prefixes (which are usually related to external roots), are not subject to

this additional constraint and must merely conform to general syllable structure; examples are *kak-* 'at night', *yawoyh-* 'again' and *djarrk-* 'acting together'.

In the domain of nominal morphology similar patterns are found. Inflectional prefixes must end in vowels, liquids or nasals (e.g. *na-* 'masculine', *ngal-* 'feminine', *(m)an-* 'vegetable') and case suffixes must end in vowels or nasals, possibly followed by a glottal stop[17] (e.g. ablative *-be(h)*, comitative *-dorreng*, locative *-ka(h)*). The only exception to this is the privative, *-yak*, with its final velar stop.

The net result of these constraints on morphologically complex words is a sort of phonotactic white bread sandwich: outer inflectional morphology with light phonotactics of open syllables or a single codal sonorant, wrapped around inner morphology of a more derivational or lexical nature exhibiting more complex syllable structures.

2.4.2 *Initial syllables beginning with vowels*

In all dialects there are a few words, almost entirely interjections, that can begin with vowels (usually *a*). Kuninjku, for example, has the following vowel initial interjections: *a* 'what'd you say?', *adjuh* 'I'm not sure, who knows, maybe', *arda* 'OK', *ay* 'hey', *ukay* 'wow!' and *uwa* 'yes!'. The only other vowel-initial words in the eastern dialects are *ungke*, a variant of *ngungke* (< *nguddangke*) 'yours' and English loans such as *odjbel* 'hospital'. Despite the existence of vowel-initial interjections, vowel-initial loanwords from other languages are adapted to the C-initial phonology by adding an appropriate glide or *ng*, as in the three language names *Yerre* (< *Erre*), *Wurningak* (< *Urningangk* and note the simplification of the banned final *ngk* cluster as well) and *Ngamurdak* (< *Amurdak*).

In the Mayali dialects only, vowel-initial words occur more frequently. This is particularly obvious in the Gun-djeihmi dialect, which as the most extreme example of vowel-initial words is the focus of the following discussion.

To begin with, there are a good number of loan-words from languages to the north and west that freely allow vowel-initial phonotactics; unlike the situation in more easterly dialects, such loan words are not assimilated by adding an appropriate initial consonant. Examples are the language names *Amurdak* and *Erre*, pronounced vowel initially in Gun-djeihmi in contradistinction to the Kunwinjku and Kuninjku pronunciations given above, *alabbanjdja* 'plant sp. *grewia xanthopetala*' (a Iwaidja loan) and the place name *Indjawandja* 'Cannon Hill'.

More numerically important, however, are the large numbers of words which freely drop the initial *ng* found in their cognates in other dialects,[18] particularly when coming at the beginning of a breath-group;[19] for example:

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[17]   A significant number of these suffixes exhibit alternations between glottal-final forms and those without the glottal stop, though one of the other form tends to be preferred in a given dialect. Further examples are instrumental *-yi(h)* and genitive *-ken(h)*. Such alternations are not found in verbal suffixes, which never have final glottal stop.

[18]   I have heard Kunwinjku speakers also make this vowel-initiation pronunciation, but then correct my repetitions by restoring the *ng-*. They also standardise towards the *ng*-initial spelling when writing in Kunwinjku. Paradoxically, because most of the Kunwinjku corpus was transcribed by native speakers, this has resulted in a more prescriptively influenced corpus for Kunwinjku, so that it is not clear exactly what the conditions on *ng*-drop are in this dialect.

anabbarru	~	*nganabbarru*	'buffalo'
an-bernbern	~	*ngan-bernbern*	'ghost gum'
aye	~	*ngaye*	'I, me'
adjadj	~	*ngadjadj*	'uncle' (MB)
an-bom	~	*ngan-bom*	'(s)he hit me'
a-wam	~	*nga-wam*	'I went'
okko	~	*ngokko*	'already'
udda	~	*ngudda*	'you'
uniwam	~	*nguniwam*	'you two went'

Some speakers insert an epenthetic *w* in front of the *u* resulting from *ng* -drop, as in *wudda* 'you' (< *udda* < *ngudda*).

Front vowels never license the dropping of word-initial *ng*, so that *nginj* 'hook' is never pronounced **inj* and *ngeigo* 'namesake' is never pronounced **eigo*.[20]

For each of the three eligible vowels, however, there are words which never drop initial *ng*:

ngarradj	(**arradj*)	'white cockatoo'
ngakngak	(**akngak*)	'grey-crowned babbler'
ngorrkbelh	(**orrkbelh*)	'the one who is my brother-in-law and your father'
nguk-badjan	(**ukbadjan*)	'fat-bellied'

I have been unable to discover a principle that will exhaustively predict which words may drop initial *ng* and which may not, though there are some clear regularities. The set of forms which may drop initial *ng* includes:

- all prefixes containing *ng* plus a non-front vowel, such as *nga-* (first person minimal), *ngan-* (vegetable class; third person minimal subject on first person minimal object) and *ngani-* (first person exclusive unit augmented subject)
- all free pronouns (e.g. *ngaye* 'I', *ngad* 'we')
- primary kin terms (e.g. *ngabbard* 'father' and *ngadjadj* 'uncle', though not Gun-dembui terms like *ngorrkbelh*)
- other closed-class items like ignoratives (*ngayed* 'where, how') and preverbal particles (*ngokko* 'already').

On the other hand, reduplicates like *ngakngak* 'grey-crowned babbler' and *ngeredjngeredj* 'pandanus frog' do not allow *ng*-drop.

There is a residue of terms, such as *ngarradj* 'white cockatoo' which never drops *ng* and *nganabbarru ~ anabbarru* which does, that cannot be predicted and must be marked lexically.

Occasionally other initial nasals are dropped in casual speech, in Gun-djeihmi only. The masculine noun-class marker *na-* is sometimes reduced to *a-* (e.g. *ahni* 'this'). Initial *nj* is sometimes dropped in the interjection *(nj)onj-njonj* 'how cute!'. Initial *y* may be dropped before *i* (e.g. *yimrai* / *imrai* come!).

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[19]   It appears that in Manyallaluk Mayali the situation is a little different, with *ng*-initial pronunciations favoured at the beginning of the breath-group and then vowel-initial pronunciation breath-group internally. However, more transcribed data is needed before this impression can be confirmed.

[20]   Note, however, that words with initial *nge* and *ngi* are rare in Mayali. I have only recorded seven distinct roots in initial *nge* and two roots with initial *ngi*. Compare this with several score with initial *nga*, about thirty with initial *ngo* and several score with initial *ngu*. The proportions in Kuninjku are comparable.

Initial-dropping appears to be an areal feature of north-western Arnhem Land. In all the Western Gunwingguan languages (Jawoyn, Warray, Kungarakany) it primarily results historically from loss of initial *ng*, although in Warray it may sometimes result from loss of initial *n* as well. Within the Mayali dialect chain there is a progressive increase in *ng*-dropping as one moves from east to west. Thus the status of *ng*-dropped variants ranges from virtually non-existent in Kune to 'substandard' (and consciously corrected) in Kunwinjku, to relatively free variation in Gun-djeihmi. Proto Gunwinjguan does not appear to have allowed vowel-initial syllables and initial-dropping seems to result from areal influence from the relatively distantly related languages of the floodplains area and the Cobourg Peninsular.

2.4.3 *Clusters across syllable boundaries*

There are very few special 'syllable contact' restrictions blocking certain types of clusters across syllable boundaries. At least across morpheme boundaries, virtually any permissible syllable-final consonant series can precede any permissible syllable-initial consonant except *rr*. As a result, intervocalic clusters of up to four segments can occur, for example *rrnghm* in *ngalgurrnghme* 'to call s.o. mother-in-law', arising from the combination of a triconsonantal codal cluster *rrngh* with a consonant onset *m*. It also means that many clusters which are not permitted in codas (e.g. *ln*, *wm* or *bk*) can occur across syllable boundaries (e.g. W *mandjalnekke* 'just like that', *biyawmey* 'she conceived him' and *bebkeng* '(s)he took him/her/it out').

The lack of syllable-contact constraints generates a very large number of combinations, namely the number of syllable-final consonant series multiplied by the number of syllable-initial consonants. Multiplying the fourteen possible onsets by the 44 possible consonantal codas given in §2.4.1 (six *VS*, four *VL*, five *VN*, five *VNh*, four *VLN*, two *VW*, one *VLNh*, twelve *VLS*, five *VWS*), plus the possible clusters involving long stops (14 — see §2.3.1), gives 631 possible clusters. Our corpus of roots is not large enough yet to test whether all these possible combinations occur intramorphemically, but we can test for the occurrence of virtually every cluster across morpheme boundaries by concatenating the right morphemes. I first briefly discuss the patterning of trans-syllabic clusters within morphemes, then turn to the more generously exemplified domain of clusters that span morpheme boundaries.

INTRAMORPHEMIC CLUSTERS As mentioned above, we do not yet possess a large corpus of polysyllabic roots — certainly well under five hundred if one excludes proper names. Even this number includes many that are etymologically multimorphemic (e.g. *maddjurn* 'black-headed python', apparently an old compound based on *djurn*, which is the Ngalakan word for the same species), or at least include cranberry morphs (e.g. *-kohbanj* 'old person', including *banj* 'stinking'; cranberry 'prepounds' are particularly frequent — §8.2.1), or are loanwords (e.g. *ngadburrung* 'brother (not genealogically close)' and Dj *galdurrk* 'kookaburra', both from Maung or Iwaidja, E *dorrhbakbak* 'plant sp.' from Dalabon, or Dj *galngbui* 'young man's first kill', from one of the Yolngu languages),[21] and clan and place names are likely to have a high proportion of loans from surrounding languages, given the language shift to Bininj Gun-wok that has occurred. Deciding how to delimit the domain of

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[21] Except for *kaldurrk*, in which the *ld* results from the adaptation of a monomorphemic flapped lateral in Iwaidja, the clusters here all appear to span live or frozen morpheme boundaries in the donor languages: in YM *galngbuy* segments into *galng* 'hunting' plus associative *-buy*; in Dalabon *dorrhbakbak dorrh-* means 'stem' and *bakbak* is obviously a reduplication and in Iwaidja and Maung *adburrung* the *ngad-* is the first person plural pronominal prefix (hence: we-brothers).

inquiry and what counts as a morpheme boundary, therefore involves a complex series of arguments that would lead us too far astray here.

If one concentrates on clear cases which are neither likely loans, nor contain cranberry morphs or frozen morpheme boundaries, the majority of transsyllabic clusters would either be allowed as codas anyway (e.g. *rlb* in *kurlba* 'blood' or *rrk* in *wurrkeng* 'cold season'), comprise homorganic nasal–stop clusters (e.g. *lumbuk* 'dove sp.', *kondah* 'here', *borndok* 'woomera', *al-wanjdjuk* 'emu' (Dj), *yingkih-* 'before, first') or have an apical consonant as the last element of the leading syllable (e.g. *an-wunnguk* 'shrub sp.' (Dj), *an-burnbarra* 'herb sp.' (Dnj), *balmarded* 'sorry for the swearing (interjection)', *wardbukkarra* 'onomatopoeic word in song'). However, there are also heavier clusters, for example, of two peripheral occusives in Dj *an-yakngarra* 'pandanus spiralis' and *bangme-* 'not yet'.

As yet I have no examples of four-consonant clusters inside morphemes, nor of stop plus liquid clusters (which would violate the sonority hierarchy), nor of clusters like *djd*, *mng* or *bdj* which move from left to right on Hamilton's articulator hierarchy. As we shall see below, such 'heavy' clusters are permitted across morpheme boundaries, which suggests that the set of permitted transsyllabic clusters within morphemes is a subset of the set of transmorphemic possibilities, but a superset of the intrasyllabic possibilities. However, a fuller evaluation of this claim and a more exact definition of what the gaps are, must await the assembling of a fuller corpus, combined with far-reaching etymological analysis.

TRANSMORPHEMIC CLUSTERS We lack the space to work through all 631 possible clusters here. Rather, we examine particular combinations illustrating the basic productivity of coda x onset combinations, focussing on sequences which we would expect to be highly marked in view of the intrasyllabic patterns discussed in §2.4.1, as well as on the basis of the thorough survey of Australian phonotactics in Hamilton (1995).

First, consider the sonority hierarchy. Unlike intrasyllabic clusters, as well as transsyllabic clusters in many other Australian languages, there is no bar against increasing sonority as one moves rightward through a cluster.[22] Sample clusters illustrating this are *kn* (*bokno* '(its) track'), *kng* (*bikuknguneng* 'it ate the body'), *bl* (*lablab* 'little bronze cuckoo'), *dr* (*kubadrurrk* 'cave'), *dw* (*mudwern* 'hairy'), *mrl* (Dj *gun-gomrlarnduk* 'adam's apple'), *ngr* (*gun-dangrurrk* 'oral cavity'), *nw* (*anwong* '(s)he gave me') *rw* (*Mirwi* 'clan name'), *my* (*gamyo* '(s)he sleeps on the way here'). Of course these all conform to the sonority hierarchy inside each of their syllables, since the last consonant is more sonorous than the vocalic nucleus of its syllable.

Second, consider the articulator hierarchy. We saw with intrasyllabic clusters that in liquid plus stop clusters the stop must be further to the left on Hamilton's articulator hierarchy. Again the articulator hierarchy does not apply to these clusters when they span a syllable boundary, as exemplified by such sequences as *rrd* (*ngarrdokmeng* 'we headed off'), *rrl* (*ngarrlobmeng* 'we ran') and *r.d* as in *kaker.di* 'it has a spike' (k.k.). Similar constraints, applying to liquid plus stop clusters inside syllables (e.g. **rrn*, **ln*) fail to apply to transsyllabic clusters: *ngarrnalkbun* 'we cry', *andjalnekke* 'just like that'. There is also no constraint against such clusters as *djd*, *njn*, *mng* and *bdj* (which move from left to right on the articulator hierarchy), even though as seen above they appear to be absent from

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[22]   In Kayardild, for example, the sequence *rnw* is outlawed, even though *Vrn* is a possible coda and *wV* a possible onset; to avoid this constraint it assimilates to *rnm*, e.g. %*ngarnwulaaja*% > *ngarnmulaaja* 'from the beach' (Evans 1995d).

transsyllabic clusters within morphemes: *bagodjdorrinj* 'she struck her head',[23] *nginjno* 'hook', *bamimnguneng* '(s)he ate the fruit', *gungebdjined* 'snot'.

Third, consider the tight constraints on consonants following semivowels in a cluster, shown in §2.4.1 to apply within syllables (e.g. **wng*, **wr*, **yd* and **ydj*). All these are possible clusters across morpheme boundaries: *biyawnguneng* '(s)he ate the child', *kayawre* 'the child goes', *kangeydi* 'it has a name on it', *boydjobkeng* '(s)he chopped up the antbed'.

Fourth, recall that within syllables nasals could not be followed by any stop except the glottal. No such constraint applies across syllable boundaries, as witnessed by such sequences as *nakomrdudj* 'initiand', *ngadjangkan* 'I hunt', *kanjdorreng* 'with meat' and *kabimdi* 'there is a painting'.

Fifth, note that repeated instances of the same consonant, one as coda and one as onset, are common. Examples are *kun-ney* 'name', *bim-mang* '(s)he recorded a picture' and *nga-ngey-yawan* 'I'm trying to think of the name'.

Finally we note that complex clusters arising from the contact of codal clusters with initial consonants are frequent and unconstrained. Examples are *dulkdjobkeng* '(s)he cut down the tree', *dinjhno* 'protrusion', *malngno* 'clan spirit', *kirhno* 'mud' (I), *ngalkurrnghme* 'call mother-in-law' and *mimnarrnghnarrng* 'droop eyes' (I).

The only partial constraints on syllable contact appear to those involving contact between apicals differing in retroflexion. This topic was partly discussed in §2.3.2, where we saw that there is cross-dialectal variation in how far such clusters assimilate place values. For example, the vegetable class prefix *(m)an-*, with its final apico-alveolar nasal, assimilates retroflex-initial stops to an alveolar position in western dialects (e.g. Dj *an-dak* 'persoonia falcata', W *man-dak*) but in Kune there is independent articulation of the two occlusives, producing *man-rdak* (usually pronounced [manɖ'ak]). Likewise the *l*-final verbal prefixes *djal-* 'just' and *bal-* 'away, along' vary, across dialects, individuals and degrees of attention to speech, in how far they assimilate, or are assimilated to, following retroflexes: followed by retroflex initials, such as *rdurndeng* 'returned' or *rlurlmeng* 'swelled up', they may themselves undergo retroflexion, as in W *benebarlrdurndeng* 'they went back', Dj *adjarlrlurlmeng* 'I just swelled up', or there may be independent articulation, as *benebal.rdurndeng* or *adjal.rlurlmeng*. Interestingly, when the first element of such a pair is retroflex it is never assimilated to an alveolar articulation: *barnname* 'put up high' may be pronounced [baɳname] or [baɳɳame] but never [banname] and *berdno* 'its tail' may be pronounced [beɖno] or [beɖɳo] but never [bɛdno].

2.5 Stress

Stress is the most complex part of the phonology. It is complicated by the alternative stress patterns that emerge in connected discourse, which reweight primary and secondary stress to meet higher-level timing targets. There are also important cross-dialect differences; Manyalluluk Mayali, for instance, does not conform to the rules given below. The following account, then, is simplified only, largely restricted to stress in isolated word forms and says little about some dialects (such as Manyalluluk Mayali) which appear on the basis of initial investigations to differ substantially in their stress patterns. A more comprehensive investigation is planned as part of a full study of prosody and intonation in Bininj Gun-wok.

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[23]   Though in eastern dialects the sequences *djd* and *djk* are assimilated to *djdj* – see §3.2.3.

The stressed syllable is normally signalled both by greater intensity and by serving as the intonational nucleus for the phrase, normally resulting in higher pitch. In the following examples I shall indicate the syllable receiving word stress by an acute accent on the relevant vowel.

2.5.1 *Basic stress pattern*

Most of the variation in stress assignment results from the interaction of a general penultimate stress target with a constraint requiring stress to be placed foot initially, with feet mostly constructed to align with morphemes, but with some additional specific constraints. Light syllables sometimes also optionally reject stress and compounds and certain types of suffixes form new right edges at their boundaries, allowing more than one primary stress to be assigned. Overall, this leads to stress falling anywhere between the last syllable (in monosyllables) and the fifth-last (in the irrealis form of some verbs).

Thus in 2.4a, illustrating the simplest case, word stress can fall on the penultimate syllable because it is foot-initial (which in the unmarked case follows from being morpheme initial), whether or not the last syllable also forms its own foot. Obviously, in monosyllables stress falls on the only syllable available (2.4b).

2.4 a. *Ngá-na-ng*   *gún-dulk*   *gun-dúlk-gen*   *dáluk*   *ø-békka-ng*
        1/3-see-PP   IV-tree   IV-tree-GEN   woman   1/2-hear-PP
        'I saw him/her.'   'tree'   'of the tree'   'woman'   'I heard you.'

        an-dálk-bang   *gun-dúlk-berl*
        III-grass-cheeky   IV-tree-arm
        'cheeky grass'   'branch of tree'

        Bi-ngérh-do-y. (E)   *Yibín-ma-ng.* (E)
        3/3hP-heart-strike-PP   2/3pl-pick-NP
        'He speared him in the heart.'   'You pick them up.'

        Yí-ngu-ø   *á-bo-m.*   *Bí-na-ng.*
        2/3-eatIMP   1/3-hit-PP   3/3h-see-PP
        'Eat it!'   'I hit it.'   '(S)he saw him/her.'

2.4 b. *ø-ná-n*   *bónj*   *nín*   *ø-wá-m* (W, I, E)
        1/2-see-NP   [interjec]   small.bird   3P-go-PP
        'I see you'   'OK, enough'   'small bird'   '(s)he went'

The examples in 2.5 illustrates what happens when the penultimate syllable does not begin a foot, usually (as in all these cases) because it is not morpheme-initial. The stress shifts leftward from the penultimate until an eligible foot-initial syllable is reached. This can lead to stress being placed on the third syllable from the end (2.5a), or the fourth last (2.5b).[24] Note that feet are grouped here by square brackets; I return to the notion of foot below.

2.5 a. [*wóibukki*]   [*bámurru*]   [*barri-*][*dúlubo-m*]
        'true'   'magpie goose'   3a/3P-hit.from.distance-PP
                                                     'they shot it'

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24 Four-syllable feet additionally receive a very light tertiary stress on their third syllable, not shown in these transcriptions.

[*an-*][*márne-*][*bom*]   [*bárri-*][*na-ng*]   [*bíni-*][*na-ng*] (E)
3/1-BEN-hitPP   3a/3-see-PP   3ua/3-see-PP
'he hit my relative'   'they saw him'   'they two saw him'

[*gárri-*][*re*]   [*gun-*][*dénge-*][*bok*] [*an-*][*górle-*][*bard*]
12a-goNP   IV-foot-track   III-bamboo-knee
'let's go'   'footprint'   'node of bamboo'

2.5 b. [*djírrirdirdi*]   [*na-*][*gárrigad-*][*gen*]   [*barri-*][*dúlubu-ni*]
         'sacred kingfisher'   MA-west-GEN   3a/3P-hit.from.distance-PI
                                 'westerner(s)'   'they were shooting (it)'

[*Kámarrang-kah*]
[skin.name]-LOC
'on/to Kamarrang'

The stress patterns discussed so far can be accounted for in terms of three constraints, in an informal optimality-theoretic statement:

2.6   Align right
       Stress should be maximally close to the right edge

2.7   Shun right edge
       Stress shouldn't adjoin the right edge

2.8   Left-align with foot
       Stress should align with the left of a foot

'Align right', as expressed here, is multiple-valued; it is best satisfied by being at the right edge (but then clashes with 2.7), second-best by being at the penultimate and so forth. 'Shun right edge' can only be violated when the word is monosyllabic and there is no other stress placement solution. 'Left-align with foot' (2.8) can never be violated. However, to understand its operation we need to say more about the foot, a subject to which we now turn.

2.5.2 Feet

Feet are the basic timing units within which stress is assigned and are of approximately equal length. In other words, Bininj Gun-wok is stress- rather than syllable-timed.

Normally each morpheme before the root is a foot, even if monosyllabic (except for the two non-syllabic morphemes *m* and *h*, which are integrated with the preceding syllable). From the root rightwards things get more complicated: most importantly, TAM suffixes are merged with the preceding morpheme (the root, or the reflexive-reciprocal suffix) into a single foot. However, monosyllabic roots (possibly with cohering TAM suffix) are feet in their own right.

Let us illustrate with examples from the Kune dialect for which we have multiple measurements from free text (Bishop 1997a; the text analysed appears in Appendix 1 as Text 5). The pronominal verbal prefixes *bini-* 'they two (acting on him/her)' and *bi-* '(s)he acting on him/her' each make up a foot, while the root *na-* 'see' plus past perfective *-ng* become the monosyllabic foot *nang*. Both *bininang* 'they two saw him/her and *binang* '(s)he saw him/her' break into two feet: [*bini*][*nang*] and [*bi*][*nang*] respectively.

When one compares timing measurements of a number of tokens of the two verb forms *bini-na-ng* and *bi-na-ng* in the same text (Text 5), one finds that the prefixes *bini-* 'they

two/him (past)' and *bi-* 'he/him (past)', consistently make up a comparable proportion of the word's duration (in milliseconds) both to each other and to the following *-nang* 'saw' (Bishop 1997); the second figure in each box gives the maximum fundamental frequency (F_0) achieved during the foot (the numbers in the top row refer to paragraphs in the text).

3	dur. F_0		4			4			13			14		
bini	72	169	*bini*	51	161	*bini*	78	153	*bi*	114	173	*bi*	63	167
nang	64	162	*nang*	69	136	*nang*	76	144	*nang*	101	138	*nang*	59	161

Note in passing that the fundamental frequency values illustrate the stress rules given above: in line with the rules in §2.5.1 these words are stressed as *bíni-nang* and *bí-nang*, as shown (among other things) by the higher F_0 values achieved during this foot compared to the inflected root *-nang* (in the case of the disyllabic prefix *bini-*, the first syllable always had a higher F_0 than the second, but this is not shown here).

Each foot, even if monosyllabic, is able to receive secondary stress on its first syllable. Secondary stress is not shown in my transcriptions here, being predictable from the foot boundaries. It is important to bear in mind, though, that feet are not 'degenerate' and unstressed simply because they are monosyllabic.

So far we have been considering cases where feet align with morpheme boundaries. However, there are a number of situations where foot construction is more complex, splitting morphemes and merging parts of morphemes.

The simplest case involves codal morphemes, such as immediate *-h*, hither *-m* and present or past perfective allomorphs taking the form of a syllable-final nasal (such as *-ng* in *nang* 'saw'). These are simply grouped with the rest of their syllable inside the same foot (e.g. [*barri-h-*][*na-ng*] [they-immediate-see-PP] 'they saw him at that moment' or [*bani-m-*][*wa-m*] [they two-towards-go-PP] 'they two came'). Such cases follow from the principle that feet must align with syllable onsets.

Secondly, some further verbal inflections, such as the past imperfective *-ni* (*ngu-ni* 'eat-PI'), irregular past perfective suffixes like *-nginj* (*da-nginj* 'stand-PP') and *-neng* (*ngu-neng* 'eat-PP'), invariably cohere into feet with their roots: [*ngu-ni*], [*da-nginj*] and [*ngu-ni*]. That this is a specific characteristic of these suffixes rather than a general property of monosyllabic affixes is shown by the fact that a range of monosyllabic preverbal prefixes form their own feet (e.g. [*nga-*][*bo-*][*yi-*][*bawo-ng*] [1/3-liquid-COM-leave-PP] 'I left the drink with him', [*ba-*][*nud-*][*górrhgeng*] 'he lanced his sore').

2.5.2.1 Morphemes producing anomalous footing

We turn now to two cases in which morpheme-specific footing behaviour can lead to a non-alignment of feet with morpheme-initial syllables: verbs in the irrealis and prefixes which produce anomalous footings when combined with verbs beginning with *d*.

Verbs in the irrealis add a suffix of one or two syllables, depending on the verb conjugation, as in *garrme-ninj* [hold-IRR], *ni-wirrinj* [sit-IRR]. Even when disyllabic, however, the irrealis suffix does not form a foot able to receive stress; rather, it merges with the root into a single foot, then stressed on its first syllable: [*a-*] [*gárrme-ninj*] [1/3-get-IRR], [*ba-*][*ní-wirrinj*] [3-sit-IRR]. This can lead to stress falling on the fourth- or fifth-last syllable, as part of a tetra- or pentasyllabic foot: [*an-*][*báye-meninj*] [3/1-bite-IRR], [*birri-*] [*wáyini-wirrinj*] [3aP-sing-IRR].

In western dialects however (at least Gun-djeihmi and sometimes Kunwinjku), four or five syllable feet are split so as to form a final trisyllabic foot (2.9), with the preceding part of the root merging with the preceding morpheme. For example, the root *warre* 'bad' is fractured into *wa*, which may either be a foot on its own or merge with the preceding morpheme and *rre*, grouped with the irrealis. Similar fracturings affect the irrealis forms *wokdiwirrinj, dangemeninj* and *bayemeninj*.

2.9   [*bà-wa*][*rré-meninj*] [*ba-wok*][*dí-wirrinj*] [*an-ba*][*yé-meninj*] [*ba-rra*][*ngé-meninj*]
       3P-go.badIRR   3P-speak-IRR   3/1-bite-IRR   3-stand-IRR

Final monosyllabic feet beginning in *d* behave anomalously when they follow a small set of disyllabic morphemes ending in a lexically accentable *e* (e.g. *mirndé* 'many' and *bulé* 'charcoal, black'). Feet of either one or two syllables display the same behaviour after comitative *yi-*. In such circumstances the affected foot merges with the preceding syllable to produce a new disyllabic foot and the *d* changes to *rr* by flapping (§3.1.1). With *mirnde* and *bule* this leaves behind a syllable that can either merge with the preceding foot (in the case of *bule*) or form its own foot (in the case of *mirnde*); a stray syllable is extruded in the other direction when *yi-* merges with a disyllabic verb and this forms its own secondarily-stressed foot also, as in the case of [*yi-rrurn*][*de-ng*]. Note that the potential of these syllables to attract primary stress is only realised in this environment; elsewhere the comitative merely receives secondary stress and the *e*-final morphemes behave as initially-stressed disyllabic feet.

The following examples contrast normal footing and stress behaviour, shown in the left and right columns, with refooting induced by the interaction of *d*-initial roots with the comitative or the lexically accented *e*-final morphemes, shown in the central column.

2.10   [*gabarri-*][*márne-*][*di*]   [*arri-bu*][*lé-rri*]   [*garri-*][*dúrnde-ng*]
        3a-BEN-standNP   1a-charcoal-standNP   12a-return-NP
        'they are praying'   'we Aboriginal people'   'we return'

        [*gabarri-*][*mirn*][*dé-rri*]   [*arri-*][*bule-*][*bárrkbo-m*]   [*garri-*][*yí-rrurn*][*de-ng*]
        3a-many-stand   1a-charcoal-cover-PP   12a/3-COM-return-NP
        'there are many of them'   'we covered the ashes'   'we bring it back'

        [*gabarri-*][*mirnde-*][*dúlubu-n*]   [*garri-*][*yi-*][*báwo-ng*]
        3a/3-many-shoot-NP   12a-COM-leave-PP
        'they shoot many of them.'   'we leave it with him/her'

                            [*gabarri-*][*mirnde-*][*djóbge*]
                            3a/3-many-cutNP
                            'they cut many of them'

2.5.2.2 Morphemes allowing alternate footings

In two further cases morphemes initiate new feet only optionally: certain elements within the pronominal prefix and the reflexive/reciprocal suffix.

Trisyllabic pronominal prefixes always have a morphologically analysable final disyllabic element, though for glossing purposes they will normally be treated as portmanteaux. In Gun-djeihmi, for example, *gabarri-* 'they (non-past)' can be segmented into *ga-* 'non-past' plus third person augmented *barri-*. Such prefixes allow two footings: one in which they are

treated as a single trisyllabic foot and one in which they are broken into a monosyllabic plus a disyllabic.

2.11   [*gabarri-*] ~ [*ga*][*barri*] '3a(/3)'   [*gabani-*] ~ [*ga*][*bani*] '3ua(/3)'

    Note that where the first syllable is closed, as in the case of *banbani-* 'third person minimal acting upon third person unit augmented', which can be segmented into *ban-* 'third person acting upon third person augmented' and *bani-* 'unit augmented object', only the segmented footing is possible: [ban][bani] '3/3du', not *[banbani-].

If these are prefixed directly to a monosyllabic stem and hence eligible to receive word stress, these alternate footings can lead to different placements of the main word stress. If not, it simply leads to different assignment of secondary stress.

2.12   [*gábarri-*][*yo*]   ~ [*ga*][*bárri-*][*yo*]   3a-lie   'they are sleeping'
       [*gabarri-*][*wókdi*] ~ [*ga*][*barri-*][*wókdi*]   3a-speak   'they are speaking'

With the reflexive/reciprocal suffix -*rr*- (§10.3.4) there is variation in whether it initiates a new foot or not. When it plus the following TAM inflection form a monosyllable, as is the case in the non-past and past perfective, it merges in all dialects with the preceding root into a single foot.

2.13   [*arri-*][*wok-*][*békka-rr-en*]   [*a-*][*djawurrk-*][*djóbge-rr-inj*]
       1a-language-hear-RR-NP   1-chin-cut-RR-PP
       'we hear each other talking'   'I shaved'

However, when this suffix plus its following TAM inflections form a disyllable (i.e. in the past imperfective, the imperative and the irrealis), the dialects differ in their footing. In the westerly dialects (Gun-djeihmi and Kunwinjku) it forms a new foot attracting primary stress:

2.14   [*barri-*][*man.ga-*][*rré-ni*]   'they were all falling'
       [*arri-bu-*][*rré-ni*]   'we used to fight'
       [*birri-wo-*][*rré-ni*]   'they used to give each other' (W)[25]
       [*garri-*][*bid-*][*yi-*][*garrme-*][*rr-ímen*]   'let's help one another'

However, the easterly dialects (e.g. Kune) never let the reflexive/reciprocal initiate a new foot, leading to the creation of long feet in such cases, with the root-initial stressed:

2.15   [*ngarr-*][*márnbu-rr-emen*]
       12-make-RR-IMP
       'let's prepare ourselves'/'let's get ready'

2.5.3 Stress retraction with light syllables

In the case of disyllabic nominal roots (nouns and adjectives) whose first syllable is open, the stress that would be expected to fall on the root-initial syllable optionally moves left to a preceding prefixal syllable, provided the word is trisyllabic, as in *ná-gimuk* 'big (masculine)', *ná-mekke* 'that (masculine)', E *kún-djila* 'axe'. This does not happen if the root-initial syllable is closed (e.g. *na-yáhwurd* 'big (masculine)', *ga-rrárrgid* '(it is) alive'), or if the prefix is longer than one syllable (e.g. W *birri-kímuk* 'big (plural); they are big').

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[25] Exceptionally, the reflexive/reciprocal does not initiate a new foot with this verb in Gun-djeihmi: [*barri-*] [*warde-*][*wó-rreni*] 'they used to give him money'.

More rarely this occurs with verbs of comparable structure: [ngá-yawan] ~ [nga-][yáwa-n] 'I am looking for him/her', [yí-yime] ~ [yi-][yíme] 'you say'. Again, this retraction is impossible if the penultimate syllable is heavy, thus [nga-][djóbge-ng] 'I cut it', but not *[ngá-djobge-ng].

2.5.4 Compounding and suffix boundaries as edges

In nominal compounds (§5.4) (whether Noun + Noun, or Noun + Adjective), special stress rules apply in the case where both roots have two or more syllables: each root bears primary stress on its first syllable, as in 2.6. This is consistent with regarding the compounding boundary (shown here with a +) as constituting a new right edge. In other cases normal stress assignment rules apply, as has been exemplified above.

2.16   [gùn-][dénge+][gúrlah]   [rákmo+][wárre]   [bálem+][gímuk]
        IV-foot-skin   hip-bad   fat-big
        'sole of foot'   'lame, bad-hipped'   'having lots of fat'

Some disyllabic suffixes behave like compounds in the sense that two primary stresses can be assigned: one on the first syllable of the prefix and one to the left of the suffix boundary, as if it were a compounding boundary, for example -djahdjam 'place of' (Dj only), -migen 'dyadic' and -dorreng 'with':

2.17   [bámurru+][djáhdjam]   [mámamh+][mígen]   [gún-dulk+][dórreng]
        magpie.goose-CHACLOC   MF-DYAD   IV-tree-with
        'gathering place for   'pair who call each   'with a stick'
          magpie geese'   other mamamh'

For the purposes of glossing in the rest of this grammar I will not show compounding boundaries outside this section.

2.5.5 Stress shift in connected discourse

The rules outlined above account for stress assignment in words spoken in isolation. In connected discourse, however, higher level intonational contours can lead to the location of main stress on other positions. This is too complex a topic to treat properly here, interwoven as it is with timing and intonation at higher levels. However, I shall briefly mention a couple of examples to illustrate the existence of the phenomenon; they are taken from the discussion in Bishop (1997), based on a detailed transcription of Text 5.

First, in narratives stress is often shifted onto a monosyllabic inflected verb root, either because it is phonetically lengthened to suggest drawn-out activity (§9.3.4.1), as in the case of bini-wá:m in Text 5, or because intonation-group final stress in this position can sometimes signal 'then'.

Second, contrastive stress can sometimes fall on bound pronouns within the verb and when this happens they can attract abnormal primary stress. An example from paragraph 10 of the narrative occurs when the protagonist Kodjok outwits one of the two mimih spirits who had been planning to kill and eat him. The early placement of main stress on bi- 'he acting upon him' in the phrase bí-marne-wenjhmeng suggests a contrastive emphasis comparable to English 'he tricked him'. Normally main stress would be assigned here as [bi-][marne]

[*wénjhmeng*], though as a separate foot *bi-* would of course be eligible to receive secondary stress.

Examples like this illustrate the possibility of significant reweightings of primary stress according to the complex demands of discourse context, even though the overall constraint that stress must fall foot-initially appears to be robust.

2.6 Delimiting the word

The word can be delimited by both phonological and morphological criteria; although any given criterion applied alone is restricted and usually indecisive, their combined application gives unambiguous results.

Phonologically, the distinctiveness of the word is somewhat reduced by the virtually identical phonotactic possibilities of syllable and word, so that the phonotactic differences between a word and a string of syllables is slight. In the Mayali dialects, the left edge of the word is the only place allowing vowel-initial syllables, but this distinction does not exist in the eastern dialects. In all dialects *rr* cannot occur word initially. The reduced phonotactic possibilities of the inflectional morphemes which bracket the outside of words mean that there is a correlation between complex codas and word-internal position, but the possibility of using nominal roots without case suffixation or prefixation for noun class means this is not an absolute test. Some morphophonemic processes, such as flapping, palatal assimilation and cluster reduction apply only within the word (see Chapter 3; none are found across all dialects). The stress assignment rules, though complex because of their sensitivity to word-internal morphological structure, define the word boundary, since the rules assigning stress work from the word's right edge. Most important in practice is the location of potential pause: in normal speech, planned pauses only occur at word boundaries.

Morphologically, the word is the primary domain within which ordering restrictions apply, as well as stipulations of elements that cannot be omitted. The non-configurational syntax of Bininj Gun-wok, with its free phrase and word order and the omissibility of subconstituents from syntactic groupings, means that few ordering constraints can be made once one moves beyond the word (though see Chapters 6 and 13 for some exceptions to this). Transitional cases involve cliticised elements, such as oblique pronouns used to make neutralised number and person categories explicit (§10.2.3), or cliticised markers of second person minimal possessor (§7.1.3) or restriction (§13.8), which are positionally fixed but come outside word-final morphology; the oblique pronouns bear their own stress but the other clitics do not.

3 *Morphophonemics*

The morphology of Bininj Gun-wok is mostly straightforwardly agglutinative, with just a few morphophonemic complications, many of which tend to be dialect-specific. Compared to its neighbours to the north and west (Gaagudju, Umbugarla, Iwaidja, Maung), all possessing complex sets of morphophonemic transformations of clusters, long-distance dissimilations and vowel mergers, the morphology is almost lego-like, though there are interesting morphophonemic rules involving the behaviour of the glottal stop (§3.3), long-distance dissimilation of peripheral nasals (§3.4) and complex types of reduplication and retriplication (§3.6).

3.1 Lenitions and flapping alternations

Neither of the following two rules apply across all dialects; the first is more widespread.

3.1.1 d-*flapping*

Morpheme-initial *d* becomes *rr* after vowel-final monosyllabic prefixes, or after open non-monosyllables with final stress. This rule applies in all dialects except Kune (see Carroll 1976:30ff. for further Kunwinjku examples), though for simplicity of exposition I mainly give Gun-djeihmi examples below. The leading hyphen in 3.1 represents either a morpheme boundary or a word boundary.

3.1   d → rr /   -CV-__

            -CV(C)Cé__

Note that this applies regardless of whether syllabic retroflexion turns the *d* into a retroflex consonant: compare the non-retroflexed *d* alternating with *rr* in the pair *barridulkdjobgeng* 'they chopped down a/the tree' vs *arrulkdjobgeng* 'I chopped down a/the tree' and the retroflexed *rd* (spelt *d* for the reasons given in §2.3.2) alternating with *rr* in the pair *barridurndi* [bariduɳɖi] 'they returned' vs *arrurndi* [aruɳɖi] 'I returned'.

Example sets 3.2–3.4 illustrate the application of this rule (after word-initial prefixes) to a verb root, a nominal root (whether functioning as an independent noun or incorporated) and a directional prefix respectively.

3.2 a. *Ngani-danginj.*
1ua-standPP
'We two (EXC) stood.'
'We two (EXC) are siblings.'

b. *Ngarri-danginj.*
1a-standPP
'We (EXC) stood.'
'We (EXC) are siblings.'

c. *Nga-rranginj.*
1-standPP
'I stood.'

d. *Ba-rranginj.*
3-standPP
'(S)he/it stood.'

e. *Yi-rranginj.*
2-standPP
'You stood.'

3.3 a. *gun-dulk*
IV-tree
'tree'

b. *Gabani-dulk-di.*
3ua-tree-standNP
'There are two trees there.'

c. *Ga-rrulk-di.*
3-tree-standNP
'There is a tree there.'

d. *gu-rrulk*
LOC-tree
'in the tree'

3.4 a. *Barri-darnh-nang.*
3a/3P-close-seePP
'They saw him close up.'

b. *Ba-rrarnh-gaihmeng.*
3P-close-call.outPP
'(S)he called out from close up.'

The insertion of a glottal stop, closing the conditioning syllable, prevents flapping (3.5d), as does the addition of a disyllabic prefix (3.5e):

3.5 a. *Garri-dowen.*
12a-dieNP
'We (INCL) die.'

b. *Nga-rrowen.*
1-dieNP
'I die.'

c. *Yi-rrowen.*
2-dieNP
'You die.'

d. *Nga-h-dowen.*
1-IMM-dieNP
'I am dying right now.'

e. *Nga-marne-dowen.*
1/3-BEN-dieNP
'I die for him/her.'

Example set 3.6 illustrates the application of the rule after a non-initial monosyllabic prefix; note that the comitative prefix here attracts the word stress.

3.6 a. *Nga-m-durndeng.*
1-hither-returnNP
'I come back.'

b. *Garri-durndeng.*
12a-returnNP
'We come back.'

c. *Nga-rrurndeng.*
1-returnNP
'I go back.'

d. *Garri-yí-rrurndeng.*
12a-COM-returnNP
'We take it back.'

Finally, example sets 3.7 and 3.8 illustrate flapping after disyllabic prefixes that, exceptionally, bear stress on a final open syllable (§2.5.1):

3.7 a. *Bani-di.*
3uaP-standNP
'They two stood.'

b. *Ba-rri.*
3P-standNP
'(S)he stood.'

3.8 a. *Gabarri-mirndé-rri.*
3a-many-standNP
'They are many (of them)'

b. *arri-bulé-rri*
1a-black-standNP
'we Aboriginal people'

Unusual stress conditions can lead to the blocking of the above rule.

Firstly, polysyllabic verb roots whose second syllable begins in a liquid attract stress to that syllable, rather than their first syllable as expected and this blocks flapping should such roots begin with an apical stop (shown here in bold):

3.9 a.   *Gabarri-bo-deléngga-n.*   b.   *Yi-derréhme!*
         3a-liquid-carry-NP   2-moveIMP
         'They carry water in their crops.'   'Move over!'

Secondly, prefixes to the verb resulting from single-syllable reduplication attract main stress and do not flap even where they otherwise meet the conditions in 3.1:

3.10   *Ba-yi-dúrh-durndi.*
       3P-COM-INCEP-returnPP
       '(S)he started back.'

Finally, there are examples that cannot be accounted for by the above examples, where flapping either applies where it shouldn't (3.11a, b) or fails to apply where it should (3.11c). It is likely that a fuller understanding of stress and prosody will be needed before such examples can be accounted for.

3.11 a.   *Ga-bili-rrowen.*   b.   *bi-rrudu-rranjbom*
Dj   3-flame-dieNP   W   3/3h-heart-spearPP
          'The flames are dying.'   'he speared him in the heart'
                                         [Oates 1964:17][1]

     c.   *nga-dédj-madurrkme*
W   1-root-pull.outNP
          'I will pull out roots' [Carroll 1976:31,
          who attributes the irregularity here to the 'unusual stress pattern'
          but does not specify further]

Examples illustrating the non-application of this rule in Kune are 3.12 and 3.13, the first with a non-retroflex syllable and the second with a retroflex syllable. Manyallaluk Mayali similarly lacks the flapping rule (e.g. *bidulubom* 'he speared/shot it' rather than *birrulubom*, the form found in Gun-djeihmi and Kunwinjku; likewise MM *badelkgang* 'it is stuck' vs Dj *barrelkgang*).

3.12   *Kun-kurlk ka-dudje-ng.*
E:N   IV-dirt   3/3-bury-NP
       'Dirt is covering it.'

3.13   [yiɖeɻbuigan]
       Yi-derbuyka-n
       2-speak.kun.derbuy-IMP
       'Speak *kun-derbuy*!' [§13.4]

The flapping rule also applies, in a post-root environment, to the inchoative verbalising suffix *-da ~ -rra* when following a root-final vowel (cf. *kelkdanj* 'it became soft', *djokkorranj* 'it became tight') and to the thematic *di*, again following a prepound-final vowel (cf. *di* 'stand', *bengyirri* 'pay attention', *durrkmirri* 'work' (W, I)).

It is also possible that the initial consonant of the reflexive/reciprocal morpheme *rre* results from an earlier application of flapping to an earlier form *de*, ultimately from an interdental. See §10.3.4.

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[1]   The first flapping is regular but the second is not; this may be a mistranscription.

3.1.2 d/rr *alternations in the pronoun paradigm*

Within the pronoun paradigm, a number of non-minimal roots have *rr* before vowels and *d* before consonants. This alternation is found in all dialects (see §7.1 for full data); exemplifying from Kunwinjku:

Table 3.1: *rr/d* alternation in the pronoun paradigm

			Unit augmented oblique form *-ewoneng*	Augmented oblique form *-berre*	Direct form *-da*	Emphatic form *-man*
1	nm	ngaRR-	*ngarrewoneng*	*ngadberre*	*(ngad)*	*ngadman*
12	nm	kaRR-	*karrewoneng*	*kadberre*	*(ngad)*	*(ngadman)*
2	nm	nguRR-	*ngurrewoneng*	*ngudberre*	*ngudda*	*ngudman*
3	nm	beRR-	*berrewoneng*	*bedberre*	*bedda*	*bedman*

On the evidence contained here, this alternation could be accounted for either by taking the flap as underlying, with it hardening to a stop before further consonants, or by taking the stop as underlying, with it flapping to *rr* before a vowel; each account has equal predictive power over the data. Taking the *d* as underlying would relate this change better to the *d*-flapping discussed in §3.1.1, but taking the *rr* as underlying would relate it to the historical sound change that has turned final *rr* into *d* in Bininj Gun-wok (Harvey, forthcoming). In any case, this particular version of the alternation is restricted to the pronoun paradigm; sequences like *ngarr-dokme* 'you and me go on ahead' or *ngarr-bawong* 'you and me left it' do not change to **ngaddokme* or **ngadbawong* in any dialect.

3.1.3 *Lenition of initial* g *after the locative prefix*

For some Mayali speakers, initial *g* of some nominals lenites to *w* after the locative prefix *gu-* (§5.2.2.1), for example:

3.14	*gukku*	'water'	*gu-wukku*	'in/into the water'
	gun-gak	'night-time'	*gu-wak*	'yesterday'

But many nominals do not lenite in this environment:

3.15	*gun-gun*	'right hand'	*gu-gun*	'on the right'

Morphophonemic lenition, from *g* to *w*, must be distinguished from the regular phonetic lenition of [g] to [g ~ ɣ] in intervocalic position. Thus *gugun*, though lacking morphophonemic lenition, is phonetically [gugun ~ guɣun].

3.2 Cluster assimilations and simplifications

There are a few rules simplifying clusters arising from the prefixation of closed syllables; many only apply in rapid speech. For given dialects it is not always evident whether these should be treated simply as fast-speech phenomena and therefore not shown in phonemic representations, or whether they should be shown at the phonemic level, with the pre-simplified versions represented at a more abstract level of structure (shown below by

enclosing the underlying versions in %%). In Kunwinjku, with its longer tradition of literacy, these changes are not usually written or represented in dictionary materials. In general, the more easterly dialects have a larger set of such simplifications.

3.2.1 Loss of **r** after apical consonants

Within the verb, morpheme-initial *r* may be dropped following apical consonants at the end of a preceding morpheme:

3.16   r → ø   /   [rr-, l-, n- __]ᵥ

Some examples are:

3.17   %   *barri-djal-rey* %   →   *barridjaley*
Dj   3aP-only-goPI
             'they just kept going along'

3.18   %   *a-bal-re* %   →   *a-bal-e*
Dj   1-away-goNP
             'I'll come on out'

3.19   %   *ngarr-re* %   →   *ngarr-e*
Dj   1a-goNP
             'we'll go'

In careful speech this rule is not obligatory. In Gun-djeihmi I have recorded the careful pronunciation (by DK) *ga-worr-rung* for 'the leaves burn' and a line from the Kunwinjku Bible translation (Karrarrkid 11) contains the word *bene-bal-rey* 'they two kept going along' (cf. 3.17).

In Gun-djeihmi, but not in other dialects, this rule also applies to the citation forms of some nouns:

3.20 a. *gun-rak*   *gunak*
         IV-fire (W, E)   fire (Dj)

     b. *gun-red*   *guned*
         IV-country (W, E) nest (Dj)

3.2.2 Post-nasal **w**-drop

This is restricted to eastern dialects and is responsible for the pronunciation of the language name *Kuninjku* instead of *Kunwinjku* by those speakers.

3.21   w → ø /   XN-__V

Examples are:

3.22   %   *kun-winjku* %   →   *kun-injku*   (language name)
        %   *kan-wo* %   →   *kan-o*   'Give it to me!'
        %   *ka-m-wurrme* %   →   *kam-urrme*   'It comes rumbling along.'
        %   *kan-wurrhke* %   →   *kan-urrhke*   'You're having me on.'

A related change in Kuninjku is the pronunciation of the cluster *kw* as a long *kk* (e.g. *yakwong* as *yakkong*).

3.2.3 Palatal assimilation

Various morpheme-initial consonants sporadically assimilate to the palatal articulation of preceding segments in fast speech, merging with them to give a long stop. Again, this is more widespread in eastern dialects and in Manyallaluk Mayali, so that Kunwinjku *dadjkeng* 'he cut it' is almost always *dadjdjeng* in Kuninjku, while 'sleeps' is usually pronounced *godjgeyo/kodjkeyo* in Gun-djeihmi and Kunwinjku, but *kodjdjeyo* in Kuninjku.

The underlying sequence *djd* always triggers assimilation, though the exact realisation varies from dialect to dialect. The crudest word for 'copulate with', underlyingly *dedjdong* (compounded from *dedj* 'butt' and *dong* 'strike'), sees assimilation to a palatal geminate in Gun-djeihmi and Kunwinjku *dedjdjong*, while in Kuninjku it receives the phonetic pronunciation [deˈtːoŋ], in which the palatal stop conditions the diphthongisation of the preceding vowel but assimilates to the following alveolar.

The analogous nasal sequence *njn*, on the other hand, only sporadically triggers assimilation, which occurs in 3.23 but not 3.24, even though both are from the Gun-djeihmi dialect. It is not clear at this stage what the conditioning factor is.

3.23   %   *ga-ganj-nudmen* %   → *ga-ganj-njudmen*
         3-meat-stinkNP
         'the meat stinks'

3.24 a. *nginj-no*   b. *A-djawinj-nomeng.*
         hook-its   1/3-cooking.fumes-smellPP
         'fishhook'   'I smelled the cooking fumes.'

In Gun-djeihmi, *rd-y* sporadically palatalises to *dj* in the lexeme *wurdyau* 'child', which becomes *wudjau* in fast speech.

3.2.4 Nasal assimilation

Within the pronominal prefix paradigm only, Gun-djeihmi and Kunwinjku speakers regularly assimilate the unit-augmented object marker *bani* (Dj) or *bene* (W) to *mani* and *mene* respectively (Dj *abanbaninang ~ abanmaninang* 'I saw the two of them' or W *ngabenbenenang ~ ngabenmenenang*; see §10.2.2 for further examples). Eastern Kunwinjku dialects, which lack unit augmented object forms, are not eligible for this change, while Manyallaluk Mayali appears to only use unassimilated forms like *ngabanbani-*.

3.2.5 Tautosyllabic rr deletion

Where a syllable with a codal *rr* has its initial also converted to *rr* by flapping (§3.1.1), the codal *rr* is deleted. An example is the pair *durrkmang* 'jerk, tug, pull' and its comitative counterpart *yirrukmang* (rather than *yirrurrkmang*) 'snatch off someone, grab off someone'; the comitative *yi-* triggers flapping of the initial.

3.3 Morphophonemic rules involving glottal stops

3.3.1 *Glottal insertions*

Glottal stops are inserted by a number of processes: as the immediate prefix in most dialects (§11.4.3), sporadically on pronouns (§7.1) and accompanying reduplication and the incorporation of certain adverbs.

3.3.1.1 *In reduplications*

In many types of reduplication prefixes are created whose last coda is closed with a glottal stop. In *ba-djanggani* 'followed a track' > *ba-djah-djanggani* '(s)he started to follow a track' and *bininj* 'person' > *binih-bininj* 'people', the glottal stop replaces other codal material (*ng* and *nj* respectively) in monosyllabic and disyllabic reduplications respectively, while in *nagimuk* 'big (one)' > *nagihgimuk* 'many big (ones)' and *an-gabo* 'creek' > *an-gaboh-gabo* 'area with lots of creeks', the glottal stop is added to an originally open syllable, again in monosyllabic and disyllabic reduplications respectively. Fuller details of each of these types are discussed and further exemplified in §3.6.

3.3.1.2 *Incorporation of certain adverbs*

The incorporation of certain adverbs into the verb involves the addition of a glottal stop in addition to the removal of affixal *-kih*. Thus *wernkih* 'properly' has the incorporating form *wernh-* and *darnkih* 'nearby' has the incorporating form *darnh-*, while *ney-ken*, the genitive of 'elbow', has the incorporating form *neykenh-* 'propped up'.

3.3.2 *Glottal dissimilation*

Except for such lexicalised cases as *man-dihdih* '*canarium australianum*', it is not acceptable for successive syllables to end in a glottal stop and these are eliminated by various means across dialects.[2] Thus glottal-closed disyllable reduplication of the root *gohbanj* 'old person' should give the form *gohbahgohbanj*, but this illegally has three successive syllables closed with a glottal stop. One hears various forms of this word that bring it into line; in Gundjeihmi both *gohbagohbanj* and *gobagohbanj* are heard, with elimination of the glottal stop that reduplication should have inserted and optionally one of the lexical ones as well, while in Dulerayek the usual form is *kobohkobanj*, with the reduplicatively-inserted glottal stop surviving and the lexical ones dropping out (vowel assimilation has also applied to the second vowel here).

| 3.25 | *-yahwurd* | 'small' | → *yahwu-yahwurd* | 'many small ones', not **yahwuh-yahwurd* |
| Dj | *-buhme* | 'blow' | → *bu-buhme* | 'keep blowing', rather than **buh-buhme* |

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2   This is a striking phonological difference between Bininj Gunwok and its closest relative Dalabon, which freely tolerates series of glottal-closed syllables (e.g. *mahkih* 'that one', *kahnjerrhdadbuninj* 'its body was dangling' and *kahkahkaninj* 'you have brought me').

3.26 *Gun-mayorrk   ga-warnam-bu-buhme.*
Dj   IV-wind   3-across-ITER-blowNP
      'The wind keeps blowing across through the car.'

3.3.3 *Adglottal retroflexion*

In all dialects the presence of a morphemic glottal stop before a morpheme-initial apical leads to the apical and the preceding vowel having a retroflex quality. Phonologically I interpret this as prosodic retroflexion spanning the two syllables adjacent to the glottal stop, but orthographically this is represented as a retroflex segment on the preceding vowel. I know of no explanation for this process in either articulatory or acoustic terms; it may suggest that the glottal stop, at least in these constructions, derives from an original retroflex stop.[3]

$$ \% \text{ XV-h-S} \begin{bmatrix} +\text{apical} \\ +\text{obstruent} \end{bmatrix} Z\ \% \quad \rightarrow \quad \% \text{ XVr-h-S} \begin{bmatrix} +\text{apical} \\ +\text{obstruent} \\ +\text{retroflex} \end{bmatrix} Z\ \% $$

Examples are:

3.28 *% ka-h-di %*   → *kar-h-di*   (phonetically [gɐˀɖi]) 'here it stands'

3.29 a. *% woh-nan %* → *worh-nan* [wɔˀɳan] '(s)he looks after, keeps an eye on'

   b. *% djengeh-no %* → *djengerh-no* [ɖeŋgɛˀɳo] 'nest'

3.4 Peripheral dissimilation

There are sporadic instances of *peripheral dissimilation*, a term which I will use broadly to refer to cases where successive syllables which would begin with consonants at the same peripheral articulation (i.e. successive bilabials, or successive velars, or merely successive peripherals, according to the case) dissimilate the point of articulation of one of them.

A once-off case of this may be seen in the Dulerayek pair of terms for 'fingernail' and 'toenail': *bid-ngalanjno* 'fingernail, lit. fingernail-its' but *dengemalanjno* 'toenail' (cf. Dj *gun-denge-ngalanj*). Here the original velar nasal dissimilates (just in this lexeme and just in this dialect) to *m* following an *ng*-initial syllable.

A more widespread example affects the pronominal prefix *gabi-* (M) / *kabi-* (W), which in all dialects marks third minimal subjects acting on third minimal higher animate objects (§10.2.7). This dissimilates to *gayi-/kayi-* before all occurrences of the benefactive prefix *marne-* and in the Kunwinjku dialect also sporadically before other morphemes beginning in *m*, *b* or *w* (*kayibalnanganan* 'he has a good look', *kayimokkinje* 'he burns the cut', *kayibadnan* 'he looks at him now' and *kayiwokmang* 'he answers him' — all examples from Hale 1959:160).

The clearest example, however, is with the pattern of nasal-inserted disyllabic reduplication that encodes iteration with monosyllabic verbs. This normally takes the initial CV of the tense-inflected verb, adds a velar nasal, then copies the vowel. For example, from the non-past root *dong* 'strikes' we derive the iterative form *dongodong* and in this case we

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3   In such Cape York languages as Wik Mungkan, ancestral retroflex glides descend as the glottal stop. It is also worth noting that comparable processes are found in at least one other Gunwinjguan languages; Heath (1978:16–18) discusses somewhat similar processes in Ngandi.

cannot be sure that the *ng* is not copied. In the case of its past perfective form *dongodoi* it is clearer that the *ng* is not copied (though one could arguably attribute it to some sort of conjugation marker), while in the case of the non-past *rengere*, from *re* 'goes', there is no plausible source for the velar nasal outside the reduplicative template itself.

This *CVngV*- pattern is found for all candidate verbs that do not begin with a peripheral consonant (examples from Gundjeihmi and Kunwinjku dialects):

3.30   Non-past form   Corresponding iterative form

du-ng	'swear at-NP'	*dungu-du-ng*
do-ng	'strike-NP'	*dongo-do-ng*
do-y	'strike-PP'	*dongo-do-y*
ru-ng	'burn, cook-NP'	*rungu-ru-ng*
ru-y	'burn, cook-PP'	*rungu-ru-y*
na-n	'see-NP'	*nanga-na-n*
ni-ø	'sit, be-NP'	*ningi-ni-ø*
di-ø	'stand-NP'	*dingih-di-ø*
yo-ø	'lie-NP'	*yongo(h)-yo-ø*[4]
re-ø	'go-NP'	*rengeh-re-ø*
re-y	'go-PI'	*rengeh-re-y*
danj	'stand-PI'	*danga-da-nj*

However, whenever the input form begins with a peripheral consonant — *b*, *k*, *m*, *ng*, or *w* — *n* rather *ng* appears in the reduplicative prefix:

3.31   Non-past form   Corresponding iterative form

bu-n	'hit, kill-NP'	*bunu-bu-n*
ka-n	'take, carry-NP'	*kana-ka-n*
ma-ng	'take, pick up-NP'	*mana-ma-ng*
ngu-n	'eat-NP'	*ngunu-ngu-n*
wo-n	'give-NP'	*wono-wo-n*
wo-ng	'give-PP'	*wono-wo-ng*
wa-m	'go-PP'	*wana-wa-m*
we-ø	'throw-NP'	*wene-we-ø*

Note that peripheral dissimilation is restricted to the output of this particular reduplication pattern and that it does not apply to superficially similar outputs from other reduplicative processes. Consider the verb *ma-* 'take, pick up'; its non-past form is monosyllabic so it chooses this reduplicative process, leading to the form *manamang* as given in 3.31 above. However, its past imperfective form is disyllabic (*mangi*), selecting a different reduplicative pattern — disyllable reduplication — giving the form *mangihmangi*, in which a sequence of peripherals is quite acceptable.

3.5 Vowel-drop

Loss of second-syllable vowels between *rr* and following velar segment occurs in some compounds and derivations and has operated historically on some loan words.

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[4]   The form with inserted glottal stop is found in Kune.

The most common form of vowel-drop can be formulated as follows:

3.32 $CV_\alpha rrV_\alpha ng \rightarrow CV_\alpha rrng$ / __-CVC

In the following examples, 3.33 shows the process applying to a Gun-djeihmi word when it is the first, but not the last, element in a compound; other dialects (for example, Kunwinjku) have the vowel-dropped form in all environments; 3.34 illustrates it applying to the normal form for 'mother' when compounded in a triangular term, while 3.35 illustrates it applying to a verbalised noun.

3.33 a. *gun-murrung*   b. *gun-bikbik-murrung*   c. *murrng-wern*
Dj   IV-bone   IV-rib-bone   bone-many
          'bone'   'rib bone'   'bony'

3.34 a. *garrang*   b. *na-garrng-burrk-warre*
Dj   'mother'   I-mother-body-bad
                                      'the one who is my father and your
                                      uncle (we are spouses)' (semantic
                                      motivation for this in unclear)

3.35 a. *gurrung*   b. *ga-gurrng-men*
Dj   'hot season,   3-hot.season-INCH.NP
          "first summer"'   'become hot season'

There are some examples of this rule applying sporadically in environments not specified by 3.32. In the Gun-dembui term *al-garrng* 'the one who is my daughter and your mother', the rule applies despite the lack of a following syllable. There are also examples of it failing to apply in the specified environment (e.g. *gúrrung-búrrk* 'middle of the hot season', *gúrrung-báng* 'hot sun'). Note that in these two cases both elements of the compound receive stress; it may be possible to give a restatement of 3.32 that relates this sort of case to stress patterns when a larger set of examples is available.

A likely example of this rule applying historically to a loan word is the root *-gurrng* which occurs in the words *na-gurrng* 'son-in-law', *al-gurrng* 'mother-in-law' and *gun-gurrng* 'respect language' as well as in such derivatives as *ngalgurrnghme* 'call someone mother-in-law'. This word is historically a loan from Yolngu-Matha to the east, where it has the form *gurrung* (Zorc 1986:147). Note that the similar word *gurrung* 'hot season' is not a loan, since it has the clear etymology *gu-rrung* (% *gu-dung* %) 'in the sun'.

3.6 Reduplication and retriplication

There are a large number of reduplication types in Bininj Gun-wok and one type of retriplication, many specific to particular derivational categories. All copy leftward, resulting in the prefixation of reduplicated material to a root. In this section I briefly summarise the main formal types; the specific details are discussed in the relevant morphology sections. For simplicity of exposition I mainly use Gun-djeihmi examples below, but unless otherwise noted the other dialects are comparable.

3.6.1 Full single-syllable reduplication

Here a whole syllable is copied, as in *dolbdolbme* 'pulsate' and *wurlhwurlhge* 'light fires all over the place', or *maih-maih* 'birds'. If the syllable ends in a nasal, a final glottal stop is added (e.g. *manjh-manjbom* 'thanked many', *barnh-barndi* 'be up high all around'). This process is the exponent of iterative reduplication for some verbs (§9.3.2) and for plural formation for some nouns, or simply lexical stem-formation in the case of nouns like *yaukyauk* 'young girls' and *gikgik* 'small birds' which lack an unreduplicated singular form (§5.3).

3.6.2 Glottal-closed first-syllable reduplication

This copies the first syllable and inserts a glottal stop as its coda, replacing any consonantal material. In other words, from a target $C_\alpha V_\beta(C)CV(X)$ this forms a reduplicative prefix $C_\alpha V_\beta h$-. The 3.37 examples show [original closed syllables, etc.] in which the original syllable is open and (3.37) examples with original closed syllables whose codal material is displaced by the glottal stop; note that the displacement of codal material does not interfere with syllabic retroflexion in *durh-durndeng* ([ɖuʔɖuˈɳɖeŋ]).

3.36	*na-gimuk*	'big'	→ *na-gih-gimuk*	'many big'
Dj	*a-nani*	'I looked at'	→ *a-nah-nani*	'I looked after'
	ba-yameng	'he speared'	→ *ba-yah-yameng*	'he tried to spear it'
3.37	*-durndeng*	'return'	→ *-durh-durndeng*	'start back'
Dj	*-djang-gani*	'follow track'	→ *-djah-djang-gani*	'start to follow a track'

This type of reduplication, applied to nouns and adjectives, expresses plurality (§5.3). Applied to verbs, it expresses inception (§9.4.1).

3.6.3 Open disyllable reduplication

From a target of form σCV(C)- this forms a prefix σCV; in other words it copies the entire first syllable and the first CV of the second, as in *ginje-ginjeng* kept cooking' from *ginjeng* 'cooked' and *dange-dangen* 'slows to a halt' from *-dangen* 'stops, stands' — this type is one formal exponent of iterative aspect (§9.4.2). The Kunwinjku plural forms of skin terms also follow this pattern:

3.38	*ngarri-ngarridj*	*waka-wakadj*
	kama-kamarrang	*banga-bangardi*
	bula-bulanj	(but *kang-kangila*, not **kangikangila*)
	wamu-wamud	*kodjo-kodjok*

3.6.4 Glottal-closed disyllable reduplication

This pattern reduplicates two syllables, placing a glottal stop after the second vowel. In other words, from a target $\sigma C_\alpha V_\beta(C)X$ this forms a reduplicative prefix $\sigma C_\alpha V_\beta h$-. Examples in which two open syllables are copied and a final glottal inserted are in 3.39, while 3.40

illustrates the replacement of codal consonants by a glottal stop. Replacement applies vacuously (3.41) if the source form already ends in a glottal stop.

3.39	*gun-wardde*	'rock'	→ *gun-warddeh-wardde*	'rock plateau'
	mungui	'continuously'	→ *munguih-mungui*	'always, often'
	an-gabo	'creek'	→ *an-gaboh-gabo*	'area with many creeks'
3.40	*-walem-gen*	'-south-GEN'	→ *waleh-walem-gen*	'southerners'
3.41	*mawah*	'FF'	→ *mawah-mawah*	'FFs'

Where the source form is trisyllabic, only the first two syllables furnish material for the reduplication, which then proceeds normally; 3.42 gives examples of trisyllabic source forms with open second syllables. Trisyllabic source forms with closed second syllables are vanishingly rare, but 3.43 gives the hypothetical unreduplicated source for an attested reduplicated form.

3.42	*an-yakngarra*	'pandanus'	→ *an-yakngah-yakngarra*	'pandanus scrub'
	gayawal	'long yam'	→ *gayah-gayawal*	'lots of long yams'
	djekmiwo	'laugh at'	→ *djekmih-djekmiwo*	'laugh and laugh at' (W)
3.43	**ganbalbal*		→ *ganbah-ganbalbal*	'black soil plain'

This pattern is used for a number of purposes: to form some plurals and names for ecological zones from nouns of more than one syllable (§6.2.7.4), to derive adjectives or adverbs and to form the iterative aspect of certain classes of verb (§9.4.2).

3.6.5 *Epenthetic disyllable reduplication*

For a couple of verbs, special reduplicated forms exist that take a closed syllable and expand it into a disyllable by copying across the first vowel, forming a prefix (3.44) from a root of form (3.45).

3.44
$$\sigma \quad \sigma$$
$$\wedge \quad \wedge$$
$$C_\alpha V_\beta \; C_\gamma V_\beta$$

3.45
$$\sigma \quad \sigma$$
$$\wedge \quad \wedge$$
$$C_\alpha \; V_\beta \; C_\gamma \; X$$

Examples are *wurlu-wurlhme* 'burn off' and *dogo-rrokme* 'lead off'. The alternation between *d* and *rr* in this latter example is due to regular flapping; see 3.1 above. This type expresses a combination of spatial and temporal distributedness — §9.4.3.

3.6.6 *Nasal-inserted disyllabic reduplication*

This forms the iterative aspect (§9.4.2) of monosyllabic inflected verbs, taking the inflected form as input. It is found in all dialects except Dulerayek. From a source of form $CV_\alpha(C)$ it derives a prefix $CV_\alpha NV_\alpha$, where N is realised as *n* if C is a peripheral consonant (*g*, *b*, *w*, *m* or *ng*) and *ng* elsewhere: see §3.4 on peripheral dissimilation for examples.

3.6.7 Retriplication

This is a derivational process, most productive in the Gun-djeihmi dialect, by which names for geographical or ecological zones can be formed from noun roots referring to a characteristic entity in that zone (§5.3.3.1). It is limited to monosyllabic roots; from a target of form $CV_\alpha(C)$, a new stem $CV_\alpha hCV_\alpha CV_\alpha(C)$ is formed, for example *gu-behbeberl* 'area with many tributary creeks', *an-bohbobouk* 'alluvial plains', *mi-djohdjodjo* 'mixed scrub zone with wattle predominant' and *an-gohgogod* 'paperbark grove'.

4 *Word classes*

There are three open word classes — verb, noun and adjective — and about a dozen closed classes. After discussing certain problems in applying distinguishing criteria (§4.1), I shall deal first with the open classes (§4.2), then the closed (§4.3).

4.1 Criteria for distinguishing word classes

In straightforward cases there are clear morphological differences (discussed in detail in §4.2) between nouns and adjectives on the one hand and verbs on the other. Nouns and adjectives are morphologically relatively simple, taking at most noun class prefixes and/or a limited set of case and derivational affixes, although both nouns and adjectives, when used predicatively, can take intransitive pronominal prefixes. Verbs are highly complex morphologically, with up to two sets of pronominal prefixes, adverbial, quantifying and directional prefixes, incorporated nouns, applicative prefixes and a complex conjugationally determined set of tense/aspect/mood suffixes.

Determining, on purely morphological grounds, whether a word is a verb, a noun or an adjective is therefore usually a simple matter. *Ngakinjeng* 'I cooked it' has to be a verb because it has the first person subject prefix *nga-* and the past perfective suffix *-ng; kun-dulk* 'tree' has to be a noun because it takes the class IV prefix *kun-* (which it can replace with the locative prefix *ku-* to give *ku-rrulk* 'in the tree', governs vegetable gender agreement (thus *kun-dulk manekke* 'that (VE) tree'), can incorporate into verbs (e.g. *birri-dulk-djobkeng* [they-tree-chop-PP] 'they chopped the tree') and can be the first element of nominal compounds (e.g. *man-dulk-kimuk* [VE-tree-big] 'big tree'). The root *nakimuk* 'big' is an adjective because its prefix must vary (in all dialects except E) to show agreement with its head (thus *bininj nakimuk* 'big man', *daluk ngalkimuk* 'big woman', *kabbala mankimuk* 'big boat' etc.).

There are, however, three interrelated problems: the looseness of syntactic structure and virtual absence of inflectional categories, the widespread use of non-verbs as predicates and the widespread lexicalisation of verbs into nominals with no overt marker of conversion.

The very loose syntactic structure, with clause boundaries difficult to determine, no morphosyntactic dependencies, optionality of much of the semantic case marking and only limited syntactic rules of ordering and constituency, makes syntactic tests for word class hard to apply. The great precision and complexity with which argument structure (Chapter 10), adverbial scope (Chapter 11) and coreference relations between distinct verb stems (Chapter

12) are encoded within the verbal word contrasts with an almost total lack of conventionalised coding mechanisms for relationships contracted between separate words. The only morphosyntactic dependency is the mechanism of gender agreement within the nominal group, but even this has been lost in some dialects and blurred or partly neutralised in others (§5.5). Except for gender agreement, the system of obligatory TAM choices on the verb and the matching of person/number values between pronominal prefixes to the verb and external nominals, it is fair to say that there is no inflectional morphology encoding syntactic dependencies between distinct words.

Consider the status of the word *kangurdulmekeno* in 4.1: is it an adverbial phrase, filled by a temporal adverbial, or a subordinate clause, filled by a verb? Correspondingly, should the word be glossed in terms of its constituent morphemes, as 'when it thunders', or as a temporal nominal, 'during the build-up season'?

4.1   *Ka-kobu-n   (bu)   ka-ngurdulme-keno.*
E   3-flower-NP SUB   3-thunderNP-when
                              build.up.season
        'It flowers during the build-up season/when it thunders.'

Such indeterminacies arise from the interaction of a number of factors: the suffix *-keno* can be used on both verbs and nouns (as a time complementiser (§14.4) or temporal suffix (§5.2.1.12) respectively) and similarly the 'subordinating' conjunction *bu* (which might be thought to favour an analysis as a subordinate clause) can also occur as a focussing device before nominal groups (6.4.1.3). There is no process of forming non-finite verbs (see §14.1), so that there is no clear-cut morphosyntactic indication of whether *kangurdulmekeno* is a phrase, a clause, or a phrase realised by a clause through rank shift. Intimately linked to this is the problem of lexicalisation;we shall see in §4.1.2 and §5.6 below that fully inflected verbs frequently become lexicalised with meanings denoting entities, times or places. Only rarely is there any formal index of category change.

4.1.1 Use of non-verbs as predicates

Non-verbs can be used as predicates. This results in some overlap in morphological possibilities, though without affecting the certainty with which we can assign roots to the verb or nominal class.

The norm is to use verbs as predicates, nouns as arguments and adjectives either as attributive modifiers of arguments (4.2) or as predicates (4.3).

4.2   *Na-mege   bininj na-warre   ga-m-lobm-e.*
Dj   MA-DEM   man   MA-bad   3-HITHER-run-NP
        'That bad man is running this way.'

4.3   *Na-mege bininj ga-warre.*
Dj   MA-DEM man   3-bad
        'That man is (in a) bad (way).'

But it is equally possible to use a noun as a predicate (4.4–4.6). Normally, nouns used as predicates occur unprefixed for their pronominal subject, this being shown by a free pronoun (4.4). But it is also possible to use pronominal subject prefixes (4.5, 4.6).

4.4   *Ngaye   bininj.*
Dj   I   man
      'I am an (Aboriginal) man.'

4.5   *Gun-dulk   an-dehne   ga-wurdurd.*
Dj   IV-tree   VE-DEM   3-child
      'That tree is a sapling.'

4.6   *Nga-ngordo.*   *Bene-ngordo.*
W   1m-leper   3ua-leper
      'I am a leper.'   'They two are lepers.'

Any word capable of being used as a predicate can take limited TAM marking in the form of the past imperfective suffix *-ni*, which can occur on nouns (4.7), pronouns (4.8), the counterfactual particle (4.8), adjectives (4.9) and adverbs (4.10, 4.11); see §8.3 for further examples. The irrealis suffix can also occur (8.96), but the past perfective cannot, which is why I use the simple gloss P for 'past' rather than PI for the suffix *ni* in these examples.

4.7   *Gorrogo   al-wanjdjuk   bininj-ni.*
Dj   before   II-emu   person-P
      'Long ago emu was a person.'

4.8   *Dja   ngokko   ∅-bal-h-ka-ni   na-wu   mayh   berrewoneng-ni*
W   and   already   3P-away-IMM-carry-PI   MA-DEM   animal   them.twoOBL-P

      yimankek-ni.
      CTRFAC-P
      'But already Echidna was bringing back food which she thought was for both of them.' [OP 426]

4.9   *Kodowele   na-kimuk-ni   yiman   Namorrodo   na-kimuk-ni-duninjh.*
W   [name]   MA-big-P   like   [name]   MA-big-P-really
      'Godowele was big like Namorrodo, who was very big.' [OP 439]

4.10 *Arri-yoh-yonginj   gu-wardde   gun-gare-ni   gorrogo.*
Dj   1a-ITER-sleepPP   LOC-rock   IV-before-P   before
      'We lived for a while in the rock country.'

4.11 *Crash   birri-yime-ng, ku-kak-ni.*
W   3aP-do-PP   LOC-night-P
      'They had a crash, it was at night.'

Nouns marked in this way may also function as second predicates, as in the following example, where *ngawurdurdni* function as the secondary predicate '(me) as a boy' — were it a primary predicate in a subordinate clause it would normally be preceded by the subordinating conjuction *bu*.

4.12 *Tom Cole   ngan-ga-ng   nga-wurdurd-ni   an-gurrme-ng   gonhdah.*
Dj   3/1-take-PP   1-child-P   3/1-put-PP   here
      'Tom Cole took me as a child and put me down here.'

The ability to use non-verbs as predicates results in certain aspects of 'verbal morphology' appearing on nouns, adjectives and so on in these constructions, raising the issue of what is

specifically 'verbal' and what is more generally 'predicate' morphology. Other extensions of what is typically verbal morphology into the realm of predicates more generally are discussed in §8.3 and include noun incorporation, the benefactive applicative, some adverbial-type prefixes and aspectual reduplication.

Despite this considerable overlap, there is never any doubt, once the behaviour of a given lexical root is examined in a wide enough range of contexts, about whether it is a verb or not. This is because there are still many other verbal affixes that only occur on verbs — the past perfective suffix and comitative applicative are clear examples — and also because the third person pronominal forms have different variants when they combine with verbs from when they combine with other word classes used as predicates (§10.2.1); most importantly, the non-past, non-minimal prefixal forms in *ka-* can only be used with verbs (cf. *kabirri-lobme* 'they run' (v.i.) but *birri-kimuk* 'they are big').

The only borderline cases are a couple of predicate adjectives like *babang* 'hurt, be in pain' and *rohrok* 'same, similar', which take the *ka-* forms of the pronominal prefixes even though in other respects their morphological possibilities are like adjectives used as predicates. Thus one says *kabenekukrohrok* 'they two are alike' rather than **benekukrohrok*, even though *rohrok* resembles an adjective root in not having a past perfective form, having no suffix when used as a non-past predicate, and feeding the formation of an inchoative verb (*karohrokmen* 'he tries', lit. 'becomes alike'). For further discussion of such cases see §13.3.

4.1.2 *Verbs as referring expressions: the lexicalisation problem*

It is also possible to use a fully inflected verb as an argument or adjunct. Here the verb functions as a sort of headless relative — 4.1 was one example of this; another is:

4.13	∅-yakbo-m	an-gurladj,	everything, ba-wam	bene-wam	bene-danginj.
Dj/W	3P-pour-PP	III-goose.nut	3-goP	3uaP-goP	3uaP-standPP

'She poured out goose nuts, everything, she went, they went, the two siblings. (lit. they two went they two stood).' ('They two stood' can be used as an argument meaning 'two siblings'.)

In contrast to the situation with nominals used as predicates, verbs used as arguments rarely take distinctive nominal morphology, although they may take 'versatile' affixes, such as *-keno* 'time' which combines equally well with nouns and verbs (4.1); 4.14 is a rare example of the locative prefix preceding the regular verbal prefixes:

4.14	Gu-mege	ngaye	nga-ni	gu-ba-rrowe-ng.
Dj	LOC-DEM	I	1-sitP	LOC-3P-die-PP

'I was at the funeral (lit. at he-(had)died.')

There are a number of examples where the semantics of such uses is completely compositional; this is particularly clear in the case of time expressions like *kangurdulme* 'it thunders' in 4.1, W, I *karrungbidbun* [3-sun-ascend] or MM *kadungbebme* [3-sun-emerge] 'sunrise', or the use of *kawurluwurlhme* 'it burns around the place' for 'burning-off season, season for lighting hunting fires'.

In most cases, however, there is some phraseologisation of the semantics, so that the resultant word is better treated as a lexicalisation, morphologically verbal but syntactically on a par with nouns. An example is the use of *bene-danginj*, literally 'they stood (up)', to mean 'the two siblings' in 4.13. The use of the 'assume stance' (§9.3.7) form of 'stand' to refer to siblings is motivated by its extension to the meaning 'be born, come into existence'

(metaphorically motivated by the notion of the children being born, feet first, onto the ground, as it were) and occasionally it is used as a predicate with this meaning:

4.15   *Minj karri-na-n   na-wu   wurdyaw bu   ka-rrangen.*
W   not   12a-see-NP MA-DEM child   SUB   3-stand.upNP
       'We (men) can't see a baby when it's being born.' [KS 262]

Most of the time, however, *birridanginj* simply means 'siblings', 'sisters' etc. Variation of the pronominal prefixes is permitted: one can say *birri-danginj* 'they (pl) siblings', *ngarri-danginj* 'we (pl) siblings' and so forth as appropriate. Unlike cases of verbs used as relative clauses, which are almost always marked by a relative demonstrative and set off by a separate intonation contour (§14.3), lexicalised deverbal nouns do not require a relative demonstrative (e.g. 4.13, 4.14) and lie inside the same intonation contour as the verb supplying the main predicate (such as *benewam* in 4.13). Occasionally they take appropriate class I or II suffixes to indicate the sex of their referent, as with *alngunihyo* 'my wife' vs *nangunihyo* 'my husband'. These tests are discussed more comprehensively in §5.6.2.

Table 4.1: Deverbal lexicalisations

Expression	Verbal meaning	Nominal meaning
(Dj) *arri-djuhme* [1a-swimNP]	'we swim ("bogey"); we are in the water'	'our bogey ceremony, involving purification by swimming'
(Dj) *garri-mikme* [12a-avoidNP]	'we practice avoidance'	'our (inclusive) mother-in-law language, avoidance language'
(W) *ka-lobme-n*[1] [3-run-NP]	'(s)he runs'	'good runner'
(Dj) *ga-bo-man.ga-n* [3-liquid-fall-NP]	'water falls'	'waterfall'
(Dj) *ba-yo-i* [3P-lie-PP]	'it lay'	'leftovers'
(Dj) *al-nguni-h-yo* [II-2ua-IMM-lieNP]	'she that you lie'	'your wife'

Table 4.1 gives an idea of the semantic range of such deverbal lexicalisations. Note that the pronominal prefixes can still encode personal deixis (cf. *al-nguni-h-yo* 'your wife', *al-nganihyo* [II-1ua-lieNP] 'my wife', or *ngabornang* 'my son/daughter' (of male) and *yibornang* 'your son/daughter' (of male), lit. 'you begot him/her'). Because of the productivity of this part of the morphology, such words are not simply frozen sequences; part of the sequence is conventionalised and part is open.

This is not to deny, however, that there are more frozen cases where former verbs lose their inflectional possibilities and become members of another class. Examples of the latter, cited in their Gun-djeihmi form, are seen in 4.16.

4.16   *garrumboledmi*   etymologically analyseable as   *ga-rrung-boledm-e*
       'afternoon'   3-sun-turn-NP
       [time nominal]   'the sun turns around'

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1   See discussion in §5.6.2 on the anomalous form of the non-past suffix here.

gare	etymologically analyseable as	*ga-re*
'maybe'		3-goNP
[modal particle]		'it goes'
-gadi	etymologically analyseable as	*ga-di*
'above'		3-standNP
[postposition]		'it stands'

There are also intermediate cases in terms of how fixed the various morpheme slots are. For example *ga-rrung-yibme* [3-sun-sinkNP] 'dusk, lit. it-sun-sets' has not been recorded with other tenses, but allows the aspectual prefix *bal-* 'towards', as in *gabaldungyibme* 'just as the sun is setting; right on dusk'.

4.2 The major word classes: diagnostics

4.2.1 Verbs

Verbs are easily distinguished by their complex morphology, with at least twelve prefix and three suffix positions (§8.1). Most important among these are the one (if intransitive) or two (elsewhere) pronominal prefixes, the two applicative prefixes (benefactive and comitative), the reflexive/reciprocal derivational suffix, the set of five conjugationally determined tense/aspect/mood (TAM) suffixes, the ability to incorporate nominals, and the many adverbial, aspectual and quantifying prefixes. Although nouns and adjectives used as predicates may employ a subset of the intransitive prefix set and a subset of the TAM set (§4.1) and some sorts of noun–adjective compounding resemble noun incorporation, they cannot take other verbal affixes such as applicatives, reflexive/reciprocal or most of the adverbial or aspectual prefixes.

Verb roots may be classified by valence into intransitives, transitives and ditransitives (there are no semitransitive verbs), and cross-classified into a large number of conjugations (§8.2.3). With a few exceptions transitivity values are fixed (§13.4.2), although valency can be increased or decreased by applicative prefixes and the reflexive/reciprocal suffix (§10.3).

4.2.2 Nominals

Nouns and adjectives share a number of morphological properties: prefixes for gender/noun class and case suffixes. Though gender and noun-class prefixes are formally identical, gender signals an inflectional category (governed by the head noun and marked on modifying nominals) while noun classes have no syntagmatic significance, being merely part of the lexeme-forming morphology and confined to (some) nouns; see §5.5 for discussion.

The superordinate term 'nominal' will be used to subsume the two classes of noun and adjective, along with other minor classes (free pronouns, ignoratives, demonstratives, numerals, locationals, manner adverbials and temporals) sharing some of their morphological possibilities.

4.2.2.1 Nouns

Over half of the noun lexemes include a noun-class prefix as well as a root; such prefixes are particularly common with inanimates. Some roots are attested with only one prefix,

while others occur in lexeme sets differing only in their prefixes; such alternations exhibit a number of semantic relationships ranging across male/female pairs like *na-kohbanj* 'old man' and *ngal-kohbanj* 'old woman', abstracts like *kun-ngordo* 'leprosy' alongside *na-ngordo* 'male leper', and metaphorical relationships like *kun-mim* 'eye' vs *man-mim* 'seed, fruit'.

Some nouns with class III or IV prefixes can replace them, when referring to locations, by the locative prefix *ku-* (cf. *kun-karlang* 'shoulder', *ku-karlang* 'on the shoulder'). The locative preposition *kure/kore*, on the other hand, may be used with nouns of all classes and all nouns can take case suffixes.

4.17	*kun-dulk*	*ku-rrulk*	*ku-rrulk-be*	*kun-dulk-dorreng*	
	IV-tree	LOC-tree	LOC-tree-ABL	IV-tree-with	
	'tree'	'in the tree'	'from the tree'	'with a/the tree'	
	daluk	*kore*	*daluk*	*daluk-be*	*daluk-yak*
	woman	LOC	woman	woman-ABL	woman-PRIV
	'woman'	'to the woman'	'from the woman'	'without a woman'	

A subset of nouns can be compounding bases; essentially the same subset can be incorporated into verbs. Most of these are generic nouns.

4.18	*kun-bolk*	*ku-bolk-mak*	*ku-bolk-yirridjdja*	*ngarri-bolk-nahna-n*
	IV-place	LOC-place-good	LOC-place-Yirridjdja	1a-place-look.after-NP
	'place'	'good place'	'Yirridjdja place/country'	'we look after (our) country'

One noun has a suppletive alternation between its free and compounding forms: *kukku* (W), *gukku* (Dj), *kun-ronj* (I, E) 'water' is the free form, but *bo-* (W, Dj, I) or *kolk-* (E, MM) is used when compounded, suffixed or incorporated; in this case the incorporated form has the more general meaning 'liquid':

4.19	*gukku*	*an-bo-bang*	*bo-yak*	*ngarri-bo-yi-na-ng*
Dj	water	VE-liquid-dangerous	liquid-PRIV	1a/3-liquid-COM-see-PP
	'water'	'brackish water'	'lacking water'	'we saw him with the water/liquid/grog'

4.20	*kukku*		*man-kuken*	*man-bo-kuken*
I	water		VE-well.known	VE-liquid-well.known
	'well-known water site'		'well-known water site'	

Another subset of nouns, dealing with body parts or manifestations, can also be incorporated into verbs (§8.3.2, §10.4.2) and form specific body-part compounds (§5.4.2). Unlike with other nouns, there is no restriction on which body-part nouns can compound or incorporate.

Other subclasses of nouns that it is useful to recognise are:

KINSHIP NOUNS These have extra morphological possibilities (though usually not totally productive) involving various derivational affixes specific to kin relationships, such as second person possessive *ke-* and property dyad *-miken* (§5.3.1.3).

PLACE NAMES These are morphologically invariant, although they may include a fixed noun-class prefix (e.g. *Namiminja*). Some have aberrant phonotactics or stress patterns, suggestive of origins in a different language.

PROPER NAMES (e.g. clan names, 'bush names', moiety, phratry and subsection names.) 'Bush names' often include noun-class prefixes (e.g. *Namiyilk*), but do not oppose masculine to feminine forms. Clan and subsection names display a contrast between masculine and feminine and, in the case of clans, neuter noun classes. In the western system of subsection terms this is achieved through the use of the regular noun-class prefixes, whereas in the eastern system the special feminine suffix *-djan*, likely a Dalabon loan, is employed (§1.4.2.2). The phratry names *yarriburrik, yarrikarnkurrk, yarriwurrkan* and *yarriyarninj* include the prefix *yarri-*, not found elsewhere.

4.2.2.2 Adjectives

When used attributively, these take a gender prefix governed by the head noun (which may or may not have a formally similar noun-class prefix); being governed for gender is normally a reliable test for adjectival status. Unlike nouns (at least those in Classes III and IV) adjectives may not take the locative prefix *ku-*. Certain nouns resemble adjectives in indicating sex by prefix, notably paired human terms like *nangordo/ngalngordo* 'male/female leper', or *nakoykoy/ngalkoykoy* 'promiscuous man/woman'. These are best treated as de-adjectival nouns, since the form of the prefix is determined directly by the referent, rather than by agreement with a governing noun, as in the case of adjectives. However, the (limited) possibility of using adjectives without governing heads (§6.3) — in which case their gender is determined directly by the referent — makes this at best a slender difference.

4.21   *bininj na-mak*   *daluk   ngal-mak*   *man-me   man-mak*
       man   MA-good   woman FE-good   III-food   VE-good
       'handsome man'   'pretty woman'   'good food'

The rules of agreement vary considerably from dialect to dialect and are discussed in §5.4. Most importantly for the definition of the adjective class, in Kune the agreement system has been abandoned, resulting in the generalisation of the masculine form: the form *namak*, for example, would be used to modify all three nouns in 4.21. Since the *na* prefix is then dropped in compounds (e.g. *kolh-mak* [water-good] 'good water'), this leaves the Kune dialect with the following criterion for adjectives: they are words with *na-* prefixes that get dropped in predicative compounds.

When used predicatively, adjectives can take intransitive pronominal prefixes and can incorporate nouns and take the imperfective verbal suffix in non-present.

4.22   *Nga-mok.*
Dj   1-sore
      'I'm sore.'

4.23   *Nga-rrenge-mok.*
Dj   1-foot-sore
      'My foot is sore.'

4.24 *Wirriwirriyak*   *ba-rrenge-mok-ni.*
Dj   black.faced.cuckoo.shrike   3P-foot-sore-PI
      'Shrike's foot was sore.'

In compounds, adjectives are always the second element:

4.25 *Yi-geb-gimuk.*
Dj   2-nose-big
      'You have a big nose' or 'Your nose is big.'

In fact, the ability to occur as the second element in compounds give a good criterion for identifying adjectives. Although two of the four main types of nominal compound (body-part compounds and mishap nicknames) allow the second elements to be nouns, the other two (*bahuvrihi* compounds and predicate compounds) require the second element to be an adjective, or a property expression formed from a noun plus case or quantity expression (§5.4). As seen above, this can be used to identify adjectives in the eastern dialects that have lost gender agreement.

Adjectives regularly participate in the formation of de-adjectival inchoative verbs like *kimukmen* 'become big' and *kimukwon* 'make big', though occasional nouns also turn up in inchoatives and causatives, such as *dalehmen* 'become dry' from *kun-daleh* or *dalehno* 'dry wood'.

Comparative constructions also pick out members of the adjective class, although they are so little used (see §13.3.7 for the various methods) that they do not furnish good tests and they have no special comparative form.

A number of non-prototypical members of the adjective class do not share all the above critera, failing to show gender agreement and/or predicative compounding behaviour.

First, a number of adjectives, particularly those referring to colour, rarely if ever occur in direct combination with the gender prefixes, instead forming predicative compounds with a body-part noun describing the location of the colour (or with the noun *kuk* 'body' if the whole entity has that colour). The resultant compound may then optionally take a gender prefix reflecting the referent.

4.26 *kuk-ngerrmeng*   *kodj-ngerrmeng*
E   body-red   head-red
      'red; red-bodied'   'red of head'

4.27 *ko-ngerrmey*   *ko-wirrwirrmeng*
M   flower-red   flower-pink
      'red flower'   'pink flower'

4.28 *al-guk-gurduk*
Dj   FE-body-black
      1.   'Aboriginal woman, black woman'
      2.   'black animal of feminine gender, e.g. black python'

Many adjectives with this limitation appear to be deverbal, sometimes including a frozen past perfective suffix *-ng* (§5.6.1.3): Dj, E *ngurlmeng* 'black', as in Dj *nagukngurlmeng* 'black-bodied, of man or masculine' (Kuninjku *ngurlme* 'appear in darkness, appear as a dark shape'), MM *bame*, E:D *barme* 'white' (Dj *bame* 'shine, glisten'). The relation of *ngerrmeng* 'red' to the verb *ngerrme* 'growl, bark (of dog)' is not currently clear. Other

adjectives with comparable verb-like morphology are *barlme* (Dj, MM) and *barlmeng* (I, E) 'full',[2] related to the verb *barlme* 'overflow', as in Dj *babobarlmeng* 'the water overflowed'.

There is not, however, a perfect correlation between this combinatoric profile and being verbally derived. The Gun-djeihmi and Kunwinjku adjective *bele* 'white', for example, eschews direct gender-prefixed forms like masculine *nabele* or feminine *ngalbele* in favour of compounded forms like *nagukbele* and *ngalkukbele*, even though it has adjectival cognates in quite distant languages (e.g. Kayardild *balarr* 'white'). On the other hand the Kune adjective *barme* 'white' can take direct *n a*-prefixation: *nabarme* 'white' and the deverbal adjective *bu(r)lerri* '(be) black', (which incorporates *bule* 'charcoal' into *di* 'stand') may occur in modifier position, as in *nawu burlerri kunj Nabarlek* 'that black wallaby Nabarlek' [KS 26].

Other properties, such as 'yellow' and 'round', are expressed by words that are basically nouns (*karlba* 'yellow ochre', but sometimes also used to mean just 'yellow' and *djurdudjurdu* 'round grinding stone', sometimes used to mean just 'round'), whose combinatorics have been extended to allow predicative-type compounding (e.g. Dj *an-godj-djurdudjurdu* [VE-head-round] 'round-headed tuber or yam').

As with the deverbal adjectives discussed above, extension to the predicative compound construction appears to be the first combinatorial property of adjectives to appear. It is interesting in this regard that noun roots can occur in any of the combinations N-N (e.g. in body-part compounds), N-Adj (e.g. in predicative compounds) and N-V (as incorporated nominals), so that this morphosyntactic context is a natural place for categorial reanalysis to occur to adjective status, whether from change of state predicates (e.g. from 'head loomed dark' to 'black head') or by coercion of properties from typical possessors of those properties (e.g. from 'head-(round like a) grinding.stone' to 'head-round').

A second set of adjectives with more limited combinatorial properties are those normally attested with the 'possessed noun' suffix *-no*, such as *lorrkno* 'hollow' (lit. 'its hollow') and *kukno* 'raw' (lit. 'its body'). These also never take agreeing gender prefixes, but can occur (without the *-no* suffix) in compounds, such as Dj *gu-rrulk-lorrk* [LOC-tree-hollow] 'in hollow trees'. As the possibility of rephrasing this last example as 'in tree-hollows' illustrates, the boundary between property and part is not always clear with such words.

A third set of adjectives with more limited combinatorics are predicate adjectives such as Dj *darrgid* 'alive' which are always either used as predicates (in which case they take the relevant intransitive prefixes) or incorporated as secondary predicates (§10.4.4). Accordingly, they never appear with noun-class prefixes. See §13.3.2 for further discussion.

A great deal more study is needed on the lexeme-specific variations in adjectival properties; it seems likely that closer scrutiny will reveal them to be even more heterogeneous than the above description indicates.

4.3 Closed classes

The first eight of the closed classes below exhibit, in a non-productive way, elements found in the broad nominal class, such as restricted uses of case suffixes or gender prefixes; this applies to free pronouns, most ignoratives, demonstratives, numerals, locationals, manner adverbials and temporals.

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2   MM appears to form more of these deverbal adjectives with *mey* than with *meng*, as compared with other dialects. Both *mey* and *meng* are attested past perfective endings, albeit in different conjugations.

4.3.1 Free pronouns

Free pronouns show a three-way number distinction and person, with first inclusive and exclusive, second and third persons. As compared to the more elaborated system of bound pronominals on the verb, some person/number combinations are missing and are usually filled by prefixing bound pronominals to numbers (e.g. *nguni-bogen* [2ua-two] 'you two').

There are three major pronoun series: direct (e.g. Dj *ngaye* 'I, me'), oblique (e.g. Dj *ngarduk* 'my') and emphatic (e.g. Dj *ngayeman* 'myself, I in turn'). Further categories can be formed by adding nominal suffixes or syntactic clitics.

4.3.2 Ignoratives

Ignoratives exhibit regular polysemy between interrogative and indefinite meanings, depending partly on whether they occur clause-initially (§7.2). Wh-interrogatives may also be used as ignoratives (something, someone etc.), and with negatives they mean 'nothing', 'noone' etc. Most ignoratives are subtypes of nominal and these take noun-class prefixes (e.g. W *na-ngale* 'who (male)', *ngal-ngale* 'who (female)', *man-ngale* 'which (e.g. tree)'), as well as some nominal case suffixes (e.g. Dj *njanjuk-gen* [what-GEN] 'why, because of what'). There is also a set of phrasal ignoratives based around the verb *yime* 'do'.

4.3.3 Demonstratives

Demonstratives always take gender prefixes, except in Kune, which has lost its gender system and generalised the masculine demonstrative forms. They form a large set organised around a complex range of deictic distinctions, encoding such precise meanings as 'this here with us', 'that one there that you were wanting to know about', etc. (§7.3). One of the demonstrative sets doubles as relative pronouns. Further spatial demonstratives, with meanings like 'over there', substitute the locative prefix *ku-* for the gender prefixes in the above sets. Unlike adjectives (the other class showing fully-fledged gender agreement), demonstratives cannot enter into compounds with their head; thus *man-bo-mak* [VE-liquid-good] 'this good water' is acceptable but not **man-bo-mekbe* 'that water'.

There is also a set of locational deictics, such as *gonhdah* (Dj)/ *kondanj* (I) 'here' and Dj *ngahdjarre* 'this side, this way', which give deictic specification but function as locationals syntactically.

4.3.4 Numerals

The small class of numerals includes *na-kudji* 'one', *boken* 'two' (*djarrkno* in eastern dialects), *danjbik* or *boken na-kudji* 'three', *kun-karrng-bakmeng* [IV-fist-broken] 'four', *kun-bid-gudji* [IV-hand-one] 'five', *kun-bid-bogen* [IV-hand-two] 'ten'. Only the first three regularly function as nominal modifiers. Another important member of this series is *na-wern-(ken)* 'many'. Of the forms listed above with the masculine prefix *na-*, *na-kudji* exhibits gender agreement with its head, whereas *na-wern* is almost always invariable (§5.5.4.2).

4.3.5 Locationals

This class includes around a dozen words such as *kanjdji* 'inside, underneath, under', *kaddum* 'on top (of), *djarre* 'a long way off' and *koyek* '(in the) east'. Some, such as *kuberrk* 'outside' and *kururrk* 'inside (a three-dimensionally enclosed space)' have an absorbed locative prefix *ku-*. Many locationals can be used either with or without an explicit 'ground' (cf. 'under the table', 'underneath'); in the former case they are postposed to a nominal group and in the latter they are used as independent adverbials. Apart from the occasional use of spatial suffixes such as the ablative *-beh,* these words do not vary their form with the syntactic context. In eastern dialects there is a directional prefix *berre-*, which may only combine with locationals (e.g. *berre-koyek* 'eastwards', *berre-kaddum* 'upwards').

4.3.6 Prepositions

There are two main prepositions (§6.4.1): resemblance is expressed by *yiman* 'like' and general location ('at, in, on, towards' also sometimes 'for') is expressed by the form *gure* in the Mayali dialects and *kore/kure* in the remaining dialects. Morphologically they are invariable; syntactically, they are always NP-initial. *Yiman* can also be used as a conjunction meaning 'like, for example'.

4.3.7 Manner adverbials

These occur in the same clause as a main verb or nominal predicate and cannot be used non-elliptically as a main predicate, nor as an argument. Examples are Dj *gorregorre* 'quickly', Dj *an-wern* and W *man-wern* 'too much', *yid-yak* 'peacefully, without fighting' (all dialects), I, E *molkno* 'secretly', Dj *gorrkgen* 'wrapped in a blanket' (cf. *an-gorrk* 'blanket, material'), Kuninjku *monambad* 'in single file'.

As this list shows, some are morphologically simple, others allow reduplication (for emphasis — W, Dj *werrk* 'quickly', *werrkwerrk* 'really quickly') or take the noun-class prefix *an-/man-*, the part suffix *-no* (in Kuninjku and Kune) or role suffixes such as *-yak* 'without' and genitive *-ken/-gen*.

The Class III prefix — *(ng)an-* (Dj), (MM) — *man-* elsewhere is commonly used to derive manner adverbials from adjectives (cf. W *kun-bele* 'white' (adj.) and *man-bele* 'running clear' (manner adv.), or E *na-mungu* 'person who is ignorant or innocent' and *man-mungu* 'accidentally'). There are also many manner adverbials with this prefix but without corresponding adjectives, for example Dj *ngan-barlok* and W *man-barlok* 'suddenly, unexpectedly'.

A number of adverbs have a suffix *-ki(h)* — *wernkih* 'properly', *darnkih* 'near', *woybukkih* 'true, fair dinkum', Kuninjku *rayekki* 'staying in one place, stationary' — which does not occur in other word classes. The first two of these may be incorporated into verbs, in which case they drop the *-kih* suffix.

4.3.8 Temporals

This class includes deictic temporals (like *bolkgime* 'now', *malaiwi* 'tomorrow'), time-of-day terms (like *barnangarra* '(in the) daytime', *gu-gak* 'at night', *ngokkowi* 'in the

afternoon') and terms for more distant times (such as *an-gare* 'before', '(in the) olden days', *gorrogo* '(in the) olden days'). The above are the Gun-djeihmi forms; there is great cross-dialectal variation here and a disproportionate number of forms exhibit semantic differences across dialects: Dj *ngokkowi* '(in the) afternoon', Kuninjku *ngokkowi* 'dusk, evening', E *ngorkkowino* 'night'.

Many temporals exhibit dribs and drabs of nominal morphology. The part suffix *-no* appears in easterly dialects (e.g. E *ngorkkowino* or *kakno* 'night', lit. 'its night' (also MM *gakno* 'night'), Kuninjku *wolewolehno* 'afternoon', lit. 'its afternoon'); presumably this identifies the relevant time as part of the diurnal cycle, but it does not extend to all comparable nouns. The neuter prefix *kun-* is found on *kun-kak* 'night' in Gun-djeihmi and Kunwinjku; Kuninjku has lexicalised the locative prefix *ku* giving *kukak* 'night' (which means 'at night' or 'during the night' in Gun-djeihmi and Kunwinjku). Used as a clitic elsewhere in the grammar to mean 'only' (§13.6.3), *-wi* occurs as a suffix with temporals only, in the Dj pairs *ngokko* 'already', *ngokkowi* 'afternoon' and *bolkgime* 'now', *bolkgimewi* 'just about'.[3] The genitive suffix *-ken* also appears in pairs like Dj *an-gare* 'before, in the olden days' and *an-gareh-gen* 'a while back, last week or so'. Compounding with certain adjective roots, such as *buyiga* 'other', is also possible (e.g. Dj *malayi* 'tomorrow', *malayibuyiga* 'the day after tomorrow').

There are also quite a few deverbal temporals exhibiting various degrees of lexicalisations, such as Dj *garrumboledmi* 'mid afternoon' lexicalised from *ga-rrung-boledme* 'it-sun-turns' but with assimilation of *ng* to *m* before *b* that would not affect an incorporated nominal in a normal verb and E *kangurdulmekeno* for 'build-up season', literally 'when it thunders', which is formally a normal verb: *ka-ngurdulme-keno* [3-thunder-TIME]. Such deverbal time terms run along a continuum of decategorialisation depending on how productive their verbal morphology is; in neither of the above cases, for example, can the TAM values of the verbal suffix be varied, but *karrumboledmi* is less clearly verbal to the extent that it has undergone the additional phonological changes just described.

4.3.9 Modal particles

These modify the modality, mood, polarity and tense of the clause. All are morphologically invariable. Their syntactic position is typically either preverbal (e.g. *wardi* 'maybe', *marrek* 'not, never', *kaluk* 'bye-and-bye, then, future') or clause-initial, in the case of *yiddok* 'perhaps; interrogative particle' (§13.10). Preverbal particles are discussed along with TAM inflections in §9.3.

4.3.10 Conjunctions

There is a handful of clausal conjunctions: *ba* 'so that, in order that', *wanjh* 'well then; all right', *kaluk* 'after, then'. *Bu* is a general subordinating conjunction; often it translates as 'when' or 'as' (see Chapter 14 for a full discussion).

Conjunction of elements can be rendered by *dja* in Dj and *la* in W and I, though it is equally common to simply list conjuncts with no overt conjunction. The particles *yika* 'some,

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3   See also §5.2.1.9 on whether *-wi* can sometimes function as an instrumental suffix.

a subset, or' and *kare* 'maybe, perhaps', though basically particles, can precede each of a number of conjoined nominals or clauses in lists of alternatives.

4.3.11 Interjections

The rich set of interjections is discussed in detail in §13.12. I define the prototypical interjection as a word that is (a) monomorphemic, (b) capable of making up an independent, non-elliptical utterance and (c) not used to represent a non-speech sound.

Condition (a) is to exclude 'interjectional phrases' that are conventionalised sequences serving as discourse markers; an example of a would-be interjection excluded by this condition is the morphologically complex *kebnguneng* 'thankyou', whose morphological structure is *ø-keb-nguneng* [I/you-nose-ate], literally 'I ate your nose'.

Condition (b) is to exclude the various monomorphemic words (e.g. modal particles like *wardi* 'might', conjunctions like *la* or *dja* 'and' and so forth, as well as many nouns) which are syntactically integrated with other words in a clause and either cannot occur alone (as with *wardi* and *dja*), or only do so in very specialised contexts, such as when an isolated noun is used for nomination, as in the utterance *daluk!* 'a woman!'.

Condition (c) is to exclude ideophones (see §4.3.13).

Interjections can be further subcategorised by basic function (see §13.12).

4.3.12 Particles

Particles are also morphologically invariable, but unlike interjections are syntactically integrated, occurring as part of a full clause. They are distinguished from other morphologically invariable words on semantic grounds; they express the speaker's attitude to the clause, evaluate its truthfulness, or suggest the range of situations to which it applies, for example *djaying* 'supposedly', *kare* 'maybe', *wardibu* 'hopefully', *barna* 'looks like it's time', and *yarrkka* 'anything, etc.' (see §13.11).

4.3.13 Ideophones

There is a small set of ideophones used onomatopoeically to represent the sound of particular events. Among them are *wurr* (Dj) 'sound of a tree falling, crash!', *birndulh* (Dj) and *djiluh* (I) 'sound of hands clapping on water to scare away crocodiles', *ngam* 'gulp!', *lerrngbak* 'bull's eye!; sound of beating someone up', *lerre* 'rattling of snail-shell collars placed around dogs', *njok* 'bark of dog', *dawird* (I) 'sound that Namorrorddo makes as he moves across the sky', *gurlulk* (Dj) 'sound of an emu', *djek-djek* 'call of the *bodjekdjek* bird'. These are often repeated a number of times, if the sound represented is a repetitive one. Many bird names, such as *djirndi* 'quail', double as ideophones representing the sound of that bird. The integration of ideophones into clausal syntax is discussed in §13.13.

5 *Nominals*

Nominals and their morphology play a relatively minor role in Bininj Gun-wok. Many clauses only contain an inflected verb, with no overt nominal word, and where the latter do occur they often lack any inflection showing their syntactic role in the clause; an unmarked noun or adjective may be subject, object, indirect object or various adjunct roles such as location or goal. The most complexity in the nominal word lies in its derivational morphology and compounding possibilities. Because nouns and adjectives have largely similar morphological possibilities they are discussed together here under the rubric 'nominals'; many of these possibilities extend to demonstrative, personal and ignorative pronouns as well. Statements in this chapter, however, should be taken to refer just to nouns and adjectives unless otherwise indicated.

5.1 Structure of the nominal word

Nominal words have the structure in (5.1). Nominalisations of locative expressions exceptionally allow two prefixes in the first slot (§5.6.2.3).

5.1   (Pref) (Quant) (Redup) Stem (Der) (Possessed marker) (Adn) (Role) (Tense)

Examples showing the expansion of some of these slots are:

5.2 a.   *gu-wardde-borledmigenh-be*
Dj   LOC-rock-other.side-ABL
          'from on the other side of the rock (plateau)'

    b.   *yiwk-no-beh*
MM   honey-3POSSD-ABL
          'from its honey'

    c.   *kon-no-yih*
E:N   spike-3POSSD-INSTR
          'by its spike'

    d.   *na-bal-kih-kimuk*
W   MA-away-REDUP-big
          'very very big'

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e.   *bakki-yak-ga*
Dj   tobacco-PRIV-LOC
      'for want of tobacco, because of having no tobacco' (see 5.69)

f.   *bigibigi-yak-ni*
Dj   pig-PRIV-P
      'there were no pigs'

With regard to the optional suffixal slots, the order in 5.1 remains tentative, since the rarity of morphologically expanded suffix sequences means that not all combinations are attested in the corpus. For example, the order Possessed.marker-Adnominal, which occurs frequently in Dalabon constructions like *rolu-no bi-no-kvn* [dog-3POSSD man-3POSSD-GEN] 'her husband's dog' (lit. 'dog-his, husband-her-of'), will normally be expressed more periphrastically in Bininj Gun-wok as *duruk nuye, nabinjkobeng nuye* 'dog his, (her) husband his-one'. The extent to which adnominal and other role suffixes can co-occur is also unclear. There are some examples of adnominal plus role sequences, such as in 5.2, but compared to the frequency of multiple case marking in other Australian languages (see Dench & Evans 1988 and the Australianist papers in Plank 1995) these are rare in the corpus.

We now examine each of the above slots in more detail.

THE PREFIX SLOT (pref) may be filled by:

(a)   one of the four noun-class/gender prefixes (§5.5)

na-	(masculine/I)
(ng)al-	(feminine/II)
(ng)an- (M)/*~man-* (W, I, E)	(vegetable/III)
kun-	(neuter/IV)

Many nouns, such as *na-rangem* 'boy', *ngal-beywurd* 'daughter (of male ego)', *man-larrh* 'callitris pine', and *kun-wardde* 'rock', have a lexical noun-class prefix which cannot be omitted in free nominals, although it can be replaced by a locative or pronominal prefix. In other words, one can never say just **rangem* or **warde*, although one can have words like *ngarri-rangem* 'we boys' or *ku-wardde* 'at/in the rock (country)'. The only time noun-class prefixes are dropped is in manner predicates with the privative suffix, as in e.g. *wok-yak* 'without talking', *yid-yak* 'without fighting' (cf. *gun-wok* 'language, talk', *gun-yid* 'trouble, fight') — see §5.2.1.6 — or when the nouns are incorporated (§8.1.3).

There are other nouns, such as *wurdurd* 'child', *bininj* 'man, person, Aborigine', *daluk* 'woman', *mim* 'breathing hole for animal that buries itself in mud or sand' (Dj) and *gukku* 'water', which do not take a non-zero noun-class prefix and occur as bare roots in a 'zero class', which I shall refer to as Class V. Some of these nouns, such as *mim*, combine with noun-class prefixes when they have a different sense (*man-mim* 'fruit', *kun-mim* 'eye'); others, such as *bininj*, *daluk* and *gukku*, never combine with noun-class prefixes.

Adjectives and some other modifiers (some numerals, demonstratives) lack fixed class prefixes, but in agreement with the noun they modify they can be assigned gender prefixes formally identical to the noun-class prefixes (e.g. *bininj na-warre* 'bad/ugly man', *daluk ngal-warre* 'bad/ugly woman', Dj *an-larrh an-warre* 'bad callitris.pine').

The noun-class and gender systems, and the interactions between them, are dealt with in detail in §5.5.

(b)   the locative prefix *gu-/ku-* (§5.2.2.1), which can replace the Class III or IV prefixes in locative constructions for some lexemes (Dj *an-labbarl* 'billabong', *gu-labbarl* 'at the billabong'; W *kun-wardde* 'stone', *ku-wardde* 'in the stone (country), stone country'). It may also occur on some unprefixed nouns (e.g. Dj *gu-wukku* 'in the water' < *gu-gukku*). Although it sometimes marks a case-like locational relationship within the clause, this prefix is also used simply to designate locations without regard to their grammatical function in the clause, and with some noun roots the locative prefix occurs so often that it approaches the status of a further noun class, marking locations. A special 'vegetable locative' prefix *mi-* (§5.2.2.3) is formally similar but restricted to a few collocations, as in *an-djoh* 'wattle, *acacia difficilis, acacia platycarpa*' and *mi-djohdjodjo* 'mixed scrub, with wattle predominant' (§5.3.3.1).

(c)   a pronominal prefix, drawn from the intransitive subject set found with verbs (§8.3.1). Pronominal prefixes are used for nominal predicates such as Dj *bani-wokbuyiga* 'they two are (of) a different language' and *nga-wurdurd* 'I, (as) a child', and for apposed noun phrases like Dj *arri-gukbulerri* 'we Aborigines'. The use of pronominal prefixes in nominal predicates is complex, participating in semantic opposition to the use of the noun-class prefixes, and is discussed in §13.3.1.

The QUANTIFIER prefix slot contains the prefixes *djal-* 'only', *bal-* 'away' and *wernh-* 'properly', all of which also function as verbal prefixes (see Chapter 11). Of these, *djal-* can combine with both nouns and adjectives, while *bal-* and *wernh-* combine only with adjectives, e.g. *na-wernh-kimuk* 'really big (masc.)', *man-bal-kerrnge* 'a newer (camp site), along the way' (KS72), *na-djal-kudji* [MA-just-one] 'just one; all alone'.

The REDUPLICATIVE prefix slot allows partial reduplication of nouns or adjectives when they have plural meaning (see §5.3).

STEMS may comprise:

(a)   a simple root, as in *gun-√warde* [IV-rock] or *√malindji* 'praying mantis',

(b)   a reduplicated root, as in *gu-warddeh-wardde* [LOC-rock] 'rocky plateau', *kilwirrkilwirr* 'plant sp.: *crinum asiaticum*' and *moduyhmoduyh* 'type of lizard' (E:N),

(c)   two or more roots, as in Dj *an-warde-geb* [III-rock-nose] 'rock outcrop, out-jutting rock', E:N *dedjmildungh* 'plant sp. eaten by rock possums' (cf. *man-dedj* 'root, tuber') or

(d)   combinations of the above, e.g. *djadberlhberlh* 'bird sp.'

Many internally complex stems contain one or more cranberry morphs not found elsewhere. In the above examples, for example, the elements *kilwirr, moduyh* and *mildungh* do not occur outside these formations.

The DERIVATIONAL SUFFIX slot contains such derivational affixes as *-migen* 'property, kinship dyad' (e.g. *gakkak-migen* 'pair who call each other *gakkak*, 'mother's mother with her daughter's child') or *-yi* 'characteristically possessing, PROPrietive', as in *na-gole-yi*

[I-bamboo.shaft-PROP] 'those (whose country) characteristically possesses good bamboo shafts'.

The POSSESSED NOUN slot essentially contains just the third person singular possessed suffix *-no* 'his, her, its' (e.g. *wurdurdno* 'his/her children'). In eastern dialects this suffix has become a general marker of part status, ranging from body parts (e.g. *mimno* 'his/her/its eye (I), eye (E)') to more abstract notions of part such as part of landscape (*labbarlno* '(its) billabong', i.e. the landscape's billabong) or the diurnal cycle (e.g. *kakno* '(its) night', i.e. that part of the diurnal cycle which is the night); this topic is examined in §5.5.4. The trirelational kinship vocabulary contains frozen forms of other possessor suffixes which were once more productive (§1.5.2), such as *-ngu* 'your'.

The ADNOMINAL SUFFIX slot optionally contains suffixes whose function is to relate one referring expression to another adnominally, in attribution or copredication, such as *-yak* 'without, PRIVative' and *-dorreng* 'with, having'. Many of these frequently function as derivational affixes as well.

The ROLE slot contains such suffixes as *-gah/-kah* 'LOCative' or *-be* 'ABLative'.

The QUANTIFIER slot contains such suffixes as *-duninj* 'really' and *-buyiga* 'another'. Since these suffixes are typically found in nominal predicates, which lack role marking, they do not co-occur with role suffixes.

The TENSE slot can optionally contain either the past marker *-ni* or the irrealis marker *-niwirrinj*; these are the most general allomorphs of the past imperfective and irrealis in the verb paradigm. Tense marking is found on nominals when they are past nominal predicates, as in *na-mak-ni* [I-good-P] 'he was a good man', or referring expressions valid only at some past time, such as *nga-wurdurd-ni* [1-child-P] 'I as a child, the child me' (§8.3).

5.2 Role affixes

Bininj Gun-wok does not use nominal morphology to encode information about core grammatical relations, with the exception of the optional use of the instrumental or ablative to mark transitive subjects in some dialects. Determination of grammatical relations is done by the pronominal verb prefixes, supplemented by context. Applicative prefixes to the verb supply thematic-role information about benefactives and comitatives (§10.3). Some adjunct roles, such as purpose, are not usually marked overtly, and are inferred from lexical, sentential and pragmatic context (§13.5.3). However, there are a number of case-like nominal suffixes, as well as various prefixes and prepositions, that are used to encode various types of adjunct roles. In no case is there agreement; suffixes attach to the head or last noun only, and prepositions precede the whole phrase.

Because these suffixes are not obligatory, they are not true case inflections, and accordingly I prefer the term 'role suffixes' to capture their more optional nature. In addition, it is less clear than with case affixes proper that they form a closed class. Consider the Gun-djeihmi suffix *-djahdjam* 'characteristic location' (§5.2.1.11), which in some ways is distributionally similar to the locative suffix *-gah/-kah* (§5.2.1.4): both can be used on nouns indicating the location at which the clause takes place, but the second is much more general and will not normally be used outside a clausal construction, while the second is much more specific (it could be glossed '(the/a) place where one characteristically finds X')

and will often be used for nomination, for example in place names. Neither is obligatory as a way of marking locations — which could also be shown through the use of a locative prefix (§5.2.2), a locative preposition (§6.4.1.1) or nothing (§13.5.3) — and neither manifests agreement over a phrasal unit, or has any further syntactic consequences. Because of the difficulties of drawing boundaries to this set in a principled way, I include in this section any suffix that attaches to nouns and thereby specifies their relation to the main predicator or to another noun.

5.2.1 Role suffixes

We begin this section with the three suffixes — the ablative, proprietive and genitive — that at least in some dialects can express the core grammatical relation of transitive subject, albeit optionally in each case. We then pass to the remaining suffixes, which are invariably used for adjunct or adnominal relations.

5.2.1.1 ABLative -be(h)

The final glottal is optional in Kunwinjku and absent in other dialects. This suffix is not found in other Gunwinyguan languages and it may have grammaticalised recently from the free form *beh* (only found in Kune), which means 'away', as in *yiwemen beh* [you-throw-IMP away] 'throw it away!'

This suffix primarily denotes source of movement:

5.3   *Daluk   bogen bani-m-wam   Ayers Rock -be.*
Dj   woman two   3uaP-hither-goPP   -ABL
      'The two women came back from Ayers Rock.'

5.4   *Birri-bebme-ng   wolewoleh   Madjinbardi-be.*
E:N   3aP-arrive-PP   yesterday   Mudginberry-ABL
      'They arrived yesterday from Mudginberry.'

5.5   *Ba-bebme-rr-inj   maih   gu-wukku-be.*
Dj   3P-appear-RR-PP   animal LOC-water-ABL
      'The animals are coming up away from the water.'

5.6   *Wurdyaw ø-durnd-i   ku-red   koyek-beh.*
W   child   3P-return-PP LOC-camp east-ABL
      'The child returned to the camp from the east.' [PC 101]

The ablative may also mark source of material or knowledge:

5.7   *Birri-marnbu-yi kubbunj kun-dulk-be kordow.*
E:N   3a/3P-make-IRR   canoe   IV-tree-ABL bombax.ceiba
      'They used to make canoes out of bombax trees.'

5.8   *Ngarridjdjan, nga-djare kun-wok   nga-ma-ng   nguddah-be.*
E:N   [subsection]   1-wantNP IV-language 1/3-get-NP   you-ABL
      'Ngarridjdjan, I want to record language from you.'

The ablative appears as a fixed part of a number of locationals expressing relative location; *borledmibe* 'behind' (5.9) is found in all dialects, while some others are restricted to Manyallaluk Mayali: *garrigatbe* 'on top of, on', *gatdumbe* 'above', *ganyjiganyjibe* 'inside'. Although these describe static spatial relationships rather than movement, the ablative appears to be motivated by the virtual trajectory as one's regard moves from one location to the other:

5.9   *Yi-bekka-n   na-mege   ga-wokdi   borledmi-be.*
Dj   2-listen-IMP   MA-DEM   3-talkNP   behind-ABL
        'Listen to that man talking behind the house.'

5.10   *Gunak   ga-bili-walayhme   ga-waydi   table   gatdum-be.*
MM   light   3-flame-hangNP   3-shineNP   high-ABL
        'The light is hanging over the table.'

The ablative is also used, in Manyallaluk Mayali, for situations in which there is partial applicability of a spatial relation, for example in applying the term 'inside' to an animal that is half-projecting from a hole:

5.11   *Ga-wo-gom-bepme,   djorrkgun   ga-wo-gom-darrh,*
MM   3-PART-neck-come.outNP   rock.possum   3-PART-neck-stick.out

        ba-gom-bepme-ng   an-gururrk-be   gururrk-ga
        3P-neck-come.out-PP   III-inside-ABL   inside-LOC
        'The rock possum's neck is sticking out of the hole (in the tree), it's inside
        sticking half out.'

A less common use of the ablative is to mark the body part of transitive subjects, when used as an instrument:

5.12   *Gun-bid-be   nga-garrme-ng daluk.*
Dj   IV-hand-ABL   1/3-grasp-PP   woman
        'I touched the woman with my hand.'

5.13   *Nga-gorn-melme-ng   gun-denge-be.*
Dj   1-crotch-touch.with.foot-PP   IV-foot-ABL
        'I touched her crotch with my foot.'

In western dialects (Gun-djeihmi, Kunwinjku and Kuninjku) the ablative occasionally functions as an ergative marker on inanimate subjects:

5.14   *Gubunj-be   ba-gubunj-djirrkka-ng.*
Dj   canoe-ABL   3/3P-canoe-push-PP
        'One canoe pushed another.'

But this is not obligatory, and an unmarked nominal may be used instead:

5.15   *Gun-mayorrk   ba-djirrkka-ng gubunj.*
Dj   IV-wind   3/3P-push-PP   canoe
        'The wind pushed the canoe.'

In Kune and Manyallaluk Mayali the instrumental *-yih*, and in Kuninjku the genitive *-ken*, are commonly used instead of the ablative for transitive subjects.

Finally, the ablative may be used in eastern dialects (Kune and Manyallaluk Mayali) to indicate a language being talked in (e.g. *kunwokbeh* 'in language' i.e. in Bininj Gun-wok). This parallels the use of the ablative *-walvng* in Dalabon (e.g. *Dalabon-walvng* 'in Dalabon').

5.2.1.2 *INSTRumental* -yi(h)

The final glottal stop is optional in Kune and Manyallaluk Mayali, and absent in other dialects.

This suffix has three main senses: instrumental, ergative and proprietive (that is, furnished or equipped with). The instrumental and proprietive uses are found in all dialects; the ergative is restricted to Kune and Manyallaluk Mayali. Comparative evidence suggests the Kune and Manyallaluk Mayali ergative use, though maintained under areal influence is conservative rather than innovative. In Kune a fourth, causal sense has developed as an extension of the ergative, apparently under Dalabon influence.

Syncretisms of proprietive, instrumental and ergative are common in Australian languages (see e.g. Blake 1977; Saulwick 1996), and it is tempting to see the instrumental and ergative as extensions from an original comitative meaning, by extending 'having, being equipped with' to 'using as an instrument' to 'affecting'. However, the comparative evidence from other Gunwinyguan languages does not give unqualified support to this: in every Gunwinyguan language with a cognate form, instrumental and ergative functions are available (Dalabon *-yih*, Warray *-yi*, Ngalakan *-yih*, Rembarrnga *-yih*), while none of these have a straightforward comitative use, though Ngalakan and Rembarrnga include it in comitative circumfixes (*bardda- -yi(h)*) and Warray and Rembarrnga use it as a base for a disyllabic proprietive (*-yiwu* and *-yinda* respectively). This evidence means that while instrumental and ergative uses are inherited, the comitative use need not be.

INSTRUMENTAL USE In all dialects *-yi(h)* can be used to indicate an instrument (see also Text 4.18, 24).

5.16   *Barri-larrhke-ng   kun-wardde-yih.*
MM   3a/3P-pound-PP   IV-stone-INSTR
       'They pounded it with a stone.'

5.17   *Balloon barri-dukga-ng   gun-yarl-yi   gu-dulk-gah.*
MM   3a/3P-tie-PP   IV-string-INSTR LOC-stick-LOC
       'They tied the balloon onto the stick with string.'

5.18   *Birlmu   nga-me-y   wakkidj-yih   ngarri-nguneng.*
E:N   barramundi 1/3-catch-PP line-INSTR   1a/3-eatPP
       'I caught barramundi with a line and we ate it.'

5.19   *Kun-buddji-yi   ngun-baro-ng*
E:N   IV-armpit.sweat-INSTR 3/2-rub-NP
       'He rubs you with sweat from under his arm.'

ERGATIVE USE In both subdialects of Kune, and in Manyallaluk Mayali, this suffix can mark transitive subjects. This optional use is particularly common in the case of inanimate (5.20) or lower animate subjects (5.21; see also Text 7.3) or where the pronominal prefix system leaves it unresolved which argument is the subject (5.22, 5.23). In situations where the prefix system disambiguates reference, the instrumental is less likely to be used as an ergative: when Kodjok reports the events of 5.26 later in the same text, he says *Kamarrang ngan-karrmeng* [K. 3/1-grabbed] 'Kamarrang grabbed me', with no instrumental suffix.

5.20   *Barri-juhge-wi gukgu-ga', bang-no   ba-we-yi   gukgu-yi.*
MM   3a/3P-soak-PI   water-LOC   poison-3POSSD 3/3-throw-PI water-INSTR
       'They used to soak (cycads) in water, and the water would leach out the poison.'

5.21   NE: *Wurruyung bi-dulubo-m?*   HD: *Wurruyung-yih bi-dulubo-m.*
MM   turtle   3/3hP-spear-PP   turtle-ERG   3/3hP-spear-PP
            'Did turtle spear her (echidna)?'   'Turtle speared her.'

5.22   *Yoh deddeh-yih   ∅-bolkbom,   kaluk kaddum. Namek   konda   kanjdji*
E:D   yes lorikeet-INSTR 3/3P-createPP then up   MA:DEM here   down

       Malnjangarnak laik kun-ronj and kaddum yi-na-n   njamed-me-ng.
       [place]   like IV-water   up   2/3-see-NP   what-VBSR-PP

       Ku-mekke   ka-re   kinga kaluk ken   kabi-kinje njamed-yih
       LOC-DEM   3-goNP croc then oops 3/3h-burnNP whatsit-INSTR

       djang-yih,   Mardayin yoh.
       dreaming-INSTR [name]   yes
       'Yes, the rainbow lorikeet created the place there, but upstream (on uplands).
       Malnjangarnak is lower down like the water, and further up is where the saltwater
       crocodile goes but the Mardayin power cooks/burns him, yeah.'

5.23   *Kodjok   bi-karrme-ng Kamarrang-yih.*
E:D   [skin]   3/3hP-grab-PP [skin]-INSTR
       'Kamarrang grabbed Kodjok.'

CAUSAL USE In Kune the instrumental suffix can be used to indicate inanimate causes of
states described by an intransitive verb; this appears to be calqued on a Dalabon use of the
same suffix (5.25).

5.24   *Nga-kodj-ru-ng   kun-dung-yih*
E:N   1-head-burn(INTR.)-NP IV-sun-INSTR
       'My head's hurting from the sun.'

5.25   *Ngah-kodj-ru-ru-ng   mudda-yih*
D   1-head-REDUP-burn(INTR.)-PR sun-INSTR
       'My head's hurting from the sun.'

5.26   *Nga-denge-ru-ng kun-kurlk-yih*
E:N   1-foot-burn-NP IV-dirt-INSTR
       'My feet are burning from the hot sand.'

PROPRIETIVE USE This use, meaning 'having/equipped with X', ranges syntactically from
adnominal use (5.27), through the formation of non-standardised phrases of characterisation
(5.28, 5.29), to lexicalised forms, a selection of which are given in 5.30–5.33. It therefore
exhibits a functional range, typical for such suffixes in Australian languages (see Dench &
Evans 1988), from relational (i.e. clause-level) through adnominal to derivational.

5.27   *Ngarri-na-ng ∅-bebme-ng   kornobolo yaw   mud-yi.*
I   1a-see-PP   3P-come.out-PP wallaby   child fur-INSTR
       'We saw a young wallaby with fur.'

5.28   *na-wu*   *mayh*   *ngalng-yi*
W   MA-REL   creature   shell-INSTR
       'that shell-having creature (i.e. long-necked tortoise)' [Berndt 1951]

5.29   *na-wu*   *mayh*   *bid-ngalng-yi*
W   MA-REL   creature   hand-shell-INSTR
       'that creature with nails on its claws (i.e. goanna)' [Berndt 1951]

5.30   *na-kole-yi*
W   MA-spear-INSTR
       'spear-maker; person from country where bamboo (used for spears) grows'

5.31   *kubunj-yi*   *ngal-djikka-yi*
       canoe-INSTR   FE-breast-INSTR
       'canoe-maker' [Oates 1964:34]   'adult woman'

5.32   *na-/ngal-kali-yi*   *man-karre-mud-yi*
       I-/II-marital.relations-INSTR   III-leg-hair-INSTR
       'married man/woman'   'hairy yam'

5.33   *na-kordang-yi*   *na-koyh-yi* (I)
       I-magic-INSTR   I-?-INSTR
       'sorcerer, "clever man"'   'rock country person'

Once such forms are lexicalised there is no need for a head noun to appear, and there may be conventionalisation of the meaning; many things have knees or nodes, but *bardyi* refers to a specific type of string bag; similarly with the extension of *nakorleyi* from its literal meaning of 'person having bamboo spear' to 'person from the stone country'. In some words the form suggests an etymology as a proprietive structure, but speakers no longer volunteer explanations for the terms; an example is the central dialect word for 'green plum', *man-moyi*, which looks like a proprietive of *mo* 'bone'.

Proprietive uses of this suffix are often found in neologisms (5.34) and in Kun-kurrng terms (5.35). Some of the latter calque proprietive structures found in the everyday language (5.35b), but in others (5.35c,d) the root is obscure.

5.34 a. *na-wel-yi* (W) / *man-wel-yi* (I)   b.   *man-denge-yi*
         I-wing-INSTR   III-wing-INSTR   III-foot-INSTR
         'aeoplane'   'motor vehicle' (old term) (*kun-denge*
                                                    'foot' also means 'wheel')

5.35 a. *na-ker-yi*   b.   *ngal-ngarel-yi*
         I-spike-INSTR   II-hair-INSTR
         'eel-tailed catfish   'long-necked turtle'
         (k.k. = o.l. *marrngunj*)   (k.k. = W o.l. *ngalmangeyi*)

     c. *ngal-marndamarnda-yi*   d.   *ngal-wirn-yi*
         II-?-INSTR   II-?-INSTR
         'female red kangaroo' (= o.l. *karndayh*) 'olive python' (= *manjdjurdurrk*)

Occasionally it is used in complements of having, for example, 'went along with her digging stick' (see Text 2.52).

5.2.1.3 GENitive -gen/-ken(h)

The final glottal stop is confined to Kunwinjku.

POSSESSIVE USE belonging to X   The basic meaning is 'of, belonging to'. It is mostly used in nominal predicates, but see §6.3.2 for some rare examples of attributive adnominal use.

5.36   *Djirrirdirdi   na-djamun-gen.*
Dj   sacred.kingfisher   MA-sacred-GEN
          'The sacred kingfisher is sacred (belongs to the realm of the sacred).'

Such adnominal genitives, like the oblique pronouns (§7.1.3), are often ambiguous between a possessive and a benefactive meaning (see Carroll 1976:102–103):

5.37   *kun-rurrk   kun-winjku-kenh*
W   IV-house   IV-freshwater-GEN
          'the Kunwinjku house or the house for the Kunwinjku' [PC 103]

5.38   *Man-ih   man-me   wurd-kenh.*
W   VE-DEM   III-food   child-GEN
          'This food is for the children.' or 'This food is the children's.' [PC 103]

Where the possessor is a pronoun, the special oblique pronouns are used (§7.1.3). However, just when talking about possession by actual close kin (especially one's father), the genitive suffix is added to the direct pronoun: *ngarduk duruk* 'my dog' and *ngarduk ngadjadj* 'my uncle' but *ngaye-ken ngabbard* 'my father'.

GENTILIC USE OF X (country), from X (country)   This is the commonest way of giving people's territorial affiliation:

5.39   *na-walem-gen*   *na-goyek-gen*
Dj   I-south-GEN   I-east-GEN
          'southerner'   'easterner'

          na-garrigad-gen   *na-warde-gen*
          I-west-GEN   I-stone-GEN
          'westerner'   'stone country person; person from the escarpment area'

In giving the territorial affiliations of animals it is more common in the western dialects to use the suffixes *-waken* (§5.2.1.7) or *-djahdjam* (§5.2.1.11). The term *dalk-gen* [grass-GEN] for 'dingo' is an exception; it builds on the common opposition between dingos and domestic dogs as 'bush' vs 'camp' animals. In Eastern dialects, however, the genitive is preferred to the gentilic suffix for animals and plants as well as people, so that a tree can be described as *bad-ken* [rock-GEN] 'of the rock country' in Kune, for example.

'OVER, CONCERNING, ABOUT, WITH THE PURPOSE OF, BECAUSE OF'   There is a wide range of semantic nuances in this general field:

5.40   *Yawkyawk   marrek   gabarri-ngu-n,   an-jamun   gun-jikga-gen,   wardi*
MM   young.girls   NEG   3a/3-eat-NP   VE-taboo   IV-breast-GEN   might

          ga-jikga-warreme-n
          3-breast-go.bad-NP
          'Young girls can't eat bush bananas, they're taboo on account of their breasts, their breasts might dry up.'

5.41   *Nartdo*   *jeny-gen,*   *ngarri-golh-bu-n.*
MM   myrystica.insipida   fish-GEN   1a/3-water-hit-NP
        '*Myrystica insipida* is used for fish, we poison water (with it).'

5.42   *Barri-du-rr-inj*   *mani-gen.*
Dj   3aP-growl-RR-PP   money-GEN
        'They argued about money' (can mean 'over what happened to the money').
        (This can be paraphrased by using the comitative applicative and treating the
        cause NP as an object; see §10.3.2.11)

5.43   *Barri-wurlh-wurlhge-yi,*   *dja*   *njamed-gen.*
Dj   3aP-ITER-light.fire-PI   and   anything-GEN
        'They would go around lighting fires, for whatever reason.'

The genitive is a common means of forming neologisms (5.44), as well as for circumlocutory formations in Kun-kurrng (5.45):

5.44 a. *ku-djorr-ken*   b.   *ku-bodme-ken*
W   LOC-torso-GEN   LOC-back-GEN
        'shirt' [Oates 1964:34]   'saddle'

5.45   *man-mile-ken*
I:k.k. III-woven.mat-GEN
        'cheeky yam (*man-yawok*)' (normally leached by putting it in
        a woven mat in a creek to filter out the poisons before eating)

'HAVING' So far this use is only attested in Gun-djeihmi; note the parallels with English 'a woman of many moods' or 'coat of many colours'.

5.46   *gorrk-gen*
Dj   material/blanket-GEN
        'having a blanket; wrapped in a blanket'

5.47   *manjdjurdurrk al-dabbu-gen*
Dj   olive.python   II-egg-GEN
        'the olive python has eggs in its belly'

It is not yet clear what is the basis for using GEN rather than COM in these constructions.

'SINCE, FROM' This nominates a given time or state taken as starting point.

5.48   *Nga-bid-warrem-inj*   *wurdurd-gen.*
Dj   1-hand-be.bad-PP   child-GEN
        'My hand's been withered since I was a child.'

5.49   *Wolewoleh-ken*   *nga-wa-m*   *kondanj.*
E:N   yesterday-GEN   1-go-PP   here
        'I came here yesterday.' (i.e. 'I've been here since yesterday.')

QUANTITY EXPRESSIONS The genitive appears on various quantity expressions dealing with number or dimension. Though Etherington and Etherington (1994:97) give the translation 'pretty big' for W *na-kimuk-kenh* [MA-big-GEN], other examples such as those given below suggest there is no restriction on degree.

Expressions of this type may be ascriptive (5.50–5.52) or predicative (5.53–5.54):

5.50   *Duruk   ginga   ba-bayeng   ba-ngu-neng   na-wern-gen.*
Dj   dog   crocodile 3/3P-bitePP 3/3P-eat-PP   MA-many-GEN
        'The/a crocodile ate all the dogs/the many dogs.'

5.51   *Na-wern-gen   gowarrang   gorrogo   arri-na-ni.*
Dj   MA-many-GEN   echidna   before   1a/3-see-PI
        'In the old days we used to see lots of echidnas around here.'

5.52   *Na-gimuk-gen!*
Dj   MA-big-GEN
        'Big ones!' (said on seeing a batch of file snakes)

5.53   *An-gareh-gen   goba-gohbanj   barri-nam-i   gun-djurle-gimuk-gen.*
Dj   III-old-GEN   REDUP-old.person 3a/3P-make-PI IV-shelter-big-GEN
        'In the old days, the old men would build a big shelter.'

5.54   *Gukku   an-bo-gimuk-gen.*
Dj   water   VE-water-big-GEN
        'The water is really up.'

As the last two examples show, the genitive-suffixed quantity root may compound with the nominal root it modifies provided that this is a compoundable root:

5.55   *Bani-yidme-guyeng-gen   yiman   dalkgen.*
Dj   3ua-tooth-long-GEN   like   dingo
        'The two teeth are long like a dingo's.'

5.56   *Na-mege   balagarde   berd-guyeng-gen.*
Dj   MA-DEM   rock.lizard tail-long-GEN
        'That rock lizard has a long tail.'

5.57   *ga-bolk-warlah-gen*
Dj   3-place-wide-GEN
        'the whole wide world'

The genitive expression is prefixed by the class III form *an-* (Dj, MM) or *man-* (other dialects) when it functions as an adverbial (see §5.2.2.4 on the use of this prefix for manner adverbs) for example *an-gare-gen* [III-old-GEN] 'formerly, before' (5.53), 'once' (5.58) and 'for a short time' (5.59).

5.58   *An-gudji-gen   a-bunjhmei.*
Dj   III-one-GEN   1/3-kissPP
        'I kissed her once.'

5.59   *an-garre-djumbungh-gen*
Dj   III-way-short-GEN
        'for a short time'

In some cases, it is unclear whether this prefix is present because of the expression's adverbial status, or because it modifies a noun governing vegetable agreement, which would require a suffix of the same form:

5.60	*Ga-bo-lutme*	*an-gimuk-gen.*
MM	3-liquid-runNP	VE-big-GEN

'The water's running high.' ('water' governs vegetable agreement)

5.61	*Wanjh*	*karri-re*	*karri-rerrng-ma-ng*	*karri-worrhme*	*man-kimuk-ken.*
W	then	12a-goNP	12a-wood-get-NP	12a-lightNP	VE-big-GEN

'Then we go and get wood and light up a big (fire).'

ERGATIVE USE Rarely, the genitive is used to disambiguate transitive clauses by marking the subject. A dialectal Kune/Kuninjku speaker, for example, explained that *Kamarrangyih* in 5.26 would be phrased as *Kamarrangken* in Kuninjku. However, this use is much rarer than its Kune equivalent.

5.2.1.4 LOCATIVE -ga/-ka(h)

The final glottal stop is optionally dropped in Gun-djeihmi, but is always present in other dialects. In eastern dialects this suffix sometimes has the form *-hkah* when following a root that does not end in a stop, as in E:D *ku-ronj-hkah* [LOC-water-LOC] 'in the water'; this is a feature of this suffix in Dalabon and Rembarrnga as well.

The semantic range of this suffix varies widely across the dialects. The original centrality of the locative meaning is suggested both by the cross-dialectal evidence and by comparative evidence from Dalabon and Rembarrnga, which have a cognate suffix *-(h)kah* (the first glottal found after vowels) centred on locational meanings. In Gun-djeihmi, Kunwinjku and Kuninjku, however, there has been a retreat of the locative sense, this being taken over by the locative prefix *ku-*, the preposition *kure ~ kore*, and (in Gun-djeihmi only) the suffix *-djahdjam*. In Kuninjku locative uses of the suffix are confined to a number of locationals, as in *konda-kah* [here-~] 'on this side', *karrikad-kah* [west-~] 'on the west side' and k.k. *kadwoh-kah* 'up, high, above' (= o.l. *kaddum*).

Other senses of this suffix, such as reason and purpose, are current in all dialects. For the older Gun-djeihmi speakers I worked with the locative use was still present in ignoratives and on locational words, but not found on regular nouns, but some younger speakers have begun to extend this suffix back into locatives, perhaps under increasing influence from other Mayali dialects.

LOCATION AND DIRECTION In Kune, Manyallaluk Mayali and Gun-dedjnjenghmi this suffix is the normal way of expressing location (5.62, 5.63) and destination (5.64, 5.65). When it combines with a Class IV noun, the prefix *kun-* is normally replaced by the locative prefix *ku-* (§5.2.2.1), as in 5.62 (cf. *kun-ronj* 'water'); in other cases just the suffix is used. On part nouns it follows the part suffix *-no* (5.62–5.64). In Kune the suffix can follow pronouns (5.65).

5.62	*Ku-ronj-kah*	*kanjdji*	*birri-yo-y.*
E:D	LOC-water-LOC	under	3aP-lie-PP

'They were lying under the water.'

5.63	*Ngarri-gurrme*	*gun-marlaworr-no*	*gerre-no-gah.*
MM	1a-putNP	IV-leaf-3POSSD	oven-PRT-LOC

'We used to put its leaves (i.e. of the ironwood tree) in ground ovens (instead of salt).'

5.64   *Nungkah   ø-wam   kabo-no-kah.*
E:N   he   3P-goPP river-PRT-LOC
        'He went to the river.'

5.65   *Ngudda-kah nga-re   kun-red   ngungke-kah.*
E:N   you-LOC   1-goNP   IV-place   your-LOC
        'I'll come out to your place.'

The exact nature of the locational relation is usually left to inference, but more precise specification using postposed locationals like *kanjdji* 'under' (5.61; §6.4.2) is possible. The verb, which often has precise locational semantics of its own, plays an important part in implying the nature of the locational relation. Thus a verb like *wendi* 'be high' (as in 5.63) will normally imply a relation 'on (top of)', while a verb like *birdikge* 'enter' will normally imply 'through' or 'into':

5.66   *Ngan-jewk   ga-nyilk-birdikge   do-gah.*
MM   III-rain   3-rain-enterNP   door-LOC
        'The rain is coming in through the door.'

In Gun-djeihmi this suffix is sometimes used for pure location by younger speakers, for example Yvonne Margarula (e.g. *gah-garrgad-gah* [REDUP-high.country-LOC] for 'up in the high country' and *man-dulum-gah* [III-hill-LOC] 'on the hill'). But most locative uses of -*ga(h)* in this dialect are restricted to directional uses, either with ignoratives like *ayega* 'where (to)' (§7.2.4) or to locationals (5.67, 5.68). These uses on locationals are, of course, also found in the eastern dialects (e.g. E *konda-kah* 'on this side, around here', and *karrikad-kah* 'on the western side, in the west').

5.67   *A-milmilme   ganjdji-ga   gu-bo-burrk.*
Dj   1-diveNP   inside-LOC   LOC-liquid-middle
        'I dive into the middle of the water.'

5.68   *Ganjdji ga-guk-gurrme, ga-h-yo,   galuk ganjdji, gure   gu-wukku*
Dj   under   3-body-putNP   3-IMM-lieNP   later inside   LOC   LOC-water

        galuk gaddum-ga ga-gurrme gure ga-h-yo,   gu-bolk-buk,   ga-h-yo.
        later up-LOC   3-putNP   LOC   3-IMM-lieNP   LOC-place-dry   3-IMM-lieNP
        'He puts the body underneath to lie, then inside, where it's in the water, 'then
        he puts it higher up in the tunnel to lie in a dry place.'

In Kun-kurrng this suffix has been absorbed in the word for 'up, high', *kadwohka*, corresponding to *kaddum* in the ordinary register.

GOAL Particularly in the western dialects where the locative sense has been restricted or lost, this suffix is used with a broad 'goal' sense that includes 'with the purpose of X, wanting X' (5.69–5.72) and 'on behalf of' (5.73). The first sense may alternatively be expressed by one use of the comitative applicative (§10.3.1.4). The Kunwinjku interrogative *njale-kah* (§7.2.3.2) 'because of what' reflects the goal sense.

5.69   *Ngarri-re-i Pine Creek   ngarri-bebm-i, bakki-yak-ga   barri-yiga-ni,*
Dj   1a-go-PI   1a-appear-PI   tobacco-PRIV-LOC   3aP-fetch-PI

> *bakki*   *barri-dowe-rr-inj.*
> tobacco   3aP-die-RR-PP
> 'We used to turn up at Pine Creek, because we had no tobacco we used to fetch it, we were dying for tobacco.'

5.70   *Bininj   bene-bu-rr-inj   daluk-kah.*
W   man   3uaP-hit-RR-PP   woman-LOC
        'The men were fighting about (because of) the woman.' [PC 102]

5.71   *An-h-djawa-djawa-n   munguih   an-me-ga /   an-bang-ga.*
Dj   3/1-IMM-ITER-ask-NP   always   III-food-GOAL   III-grog-LOC
        'He's forever asking me for food/for grog.'

5.72   *Kabi-bu-n   daluk-kah.*
W   3/3h-hit-NP   woman-LOC
        'He will hit him because of the woman.'

5.73   *Birri-wo-ni   wangbol   ngan-ege,   wanjh   buyiga   na-mege   na   bininj*
Dj/W   3a/3P-give-PI   voodoo   VE-that   well   other   MA-DEM   now   man

        na-gunweleng   gorrogo   bi-marne-bom,   na-wu   ibin   bininj,
        I-'right.man'   before   3/3hP-BEN-killPP   MA-REL   he.was   man

        na-mud-djarrk-ga.
        I-hair-together-LOC
        (idiom for 'kith and kin')
        'They'd give that *wangbol* (a sort of voodoo image) to another man now (who was to follow) the murderer, who'd killed (a man) before, to that man (to carry out revenge) on behalf of their tribe.'

This sense is sometimes found in adnominal constructions, with the meaning 'thing used for X, for using with X':

5.74   *gukku   gu-mim-ga*
Dj   water   LOC-eye-LOC
        'eye medicine; water (used) because of something in the eyes'

Finally, it occurs (in I) in the expression *boken-kah* [two-~] 'twice'.

5.2.1.5 COMITative -dorreng(h)

This suffix is found in all dialects; the glottal-stop final form is restricted to Kune Dalabon has a cognate comitative suffix *dorrvngh*, as well as a formally related noun *dorrung* meaning 'body'.

This suffix basically means 'with, in company of, in presence of' (5.75), 'equipped with' (Text 4.8).

5.75   *Ngaye   nga-na-ng   nungka   djarrang-dorreng.*
W   I   1/3-see-PP   him   horse-COMIT
        'I saw him with a horse.' [PC 102]

It is more usual to express accompaniment with the COMitative applicative and a free or incorporated nominal unmarked for role. See §10.3.2.

It is commonly used to mark instruments, in which case it is paraphrasable with the instrumental suffix, but this time not with the comitative applicative:

5.76	*An-gudji-gen a-bom*	*guba-dorreng,*	*a-berd-bakke-ng.*
Dj	III-one-GEN 1/3-hitPP	iron.bar-COMIT	1/3-tail-break-PP

'Once I hit him with an iron bar, and broke his tail'.

5.77	*Nga-yame-ng*	*barrawu-dorreng.*
Dj	1/3-spear-PP	[spear]-COMIT

'I speared it with a *barrawu* spear.'

5.78	*Njaleh-dorreng yi-yame-ng?*	*Nga-yame-ng*	*lama-dorreng.*
W	what-COM 2-spear-PP	1-spear-PP	shovel.spear-COMIT

'What did you spear him with?'   'I speared him with a shovel spear.'

5.79	*Ngarri-djuhme kun-ronj-dorrengh.*
E:N	1a-batheNP IV-water-COMIT

'We bathe (our eyes) with (spinifex resin dissolved in) water.'

In Gun-djeihmi, this suffix is used for '(talking) in a language', where eastern dialects use the ablative (q.v.):

5.80	*Gun-wok-dorreng*	*nguni-wokdi!*
Dj	IV-language-COMIT	2ua-talkIMP

'You two talk in (Aboriginal) language!'

The structure PRONOUN-*dorreng-h-ni* is often used as a main predicate with the meaning 'be present at'. It is unclear at this stage whether the glottal stop is the immediate aspect marker, or is a protected full form of the suffix.

5.81	"*Barna*	*ngudda-dorreng-h-ni*	*yi-ban-na-ng.*"
Dj	looks.like	you-COMIT-?-P	2/3pl-see-PP

"'Looks like you were present there, and saw them.'"

	"*Wou,*	*ngaye-dorreng-h-ni.*"
	yes	I-COMIT-?-P

"'Yes, I was present there.'"

In Manyallaluk Mayali the form *X-dorrengh* ('having X') can also feed the verbaliser *-men* (§8.2.2.1) to form a verb '(come to) have X', which may further incorporate a body part:

5.82	*Ja*	*ngalengman*	*Christine*	*ba-bit-wurdurt-dorrengh-m-iny,*
MM	and	sheEMPH		3P-hand-child.of.female-with-VBSR-PP

	Charlie	*nungan,*	*barri-beiwurt-dorrengh-miny.*
		heEMPH	3aP-child.of.male-with-VBSR-PP

'And Christine now has children herself, and Charlie; they both have children.'

5.2.1.6 PRIVative *-yak*

This forms predicates (§5.83) or predicative adjuncts of lack (5.84, 5.85):

5.83   *Anabbarru   yerre   ba-m-bebme-ng.*   *Nomo bigibigi, before,   bigibigi-yak-ni.*
Dj   buffalo   behind 3-hither-appear-PP   no   pig   pig-PRIV-PI
      'Buffaloes came later. There were no pigs either, in the old days there were no pigs.'

5.84   *Darh-yak, gun-dalk   ngarri-rurrk-nam-i. An-ngulubu   arri-rurrk-nam-i,*
Dj   bark-PRIV IV-grass   1a-shelter-make-PI III-spear.grass 1a-shelter-make-PI

      arri-yo-i.
      1a-lie-PI
      'If we had no stringybark, we used to make shelters out of grass. We'd build them
      out of spear grass, and sleep in them.'

5.85   *Dabbarrabbolk   birri-nguneng   man-munmun   na-wu   kun-ronj-yak*
I   old.people   3a/3P-eatPP   III-[grass]   MA-REL   IV-water-PRIV

      birri-h-ni,   wanjh   birri-nunj-wukme-ng   yiman   kun-ronj.
      3aP-IMM-sitPI   then   3aP-spit-produce-PP   like   IV-water
      'The old people used to eat *man-munmun* grass when there was no water and
      chewing the grass would produce spittle that they could swallow.' [GID]

Noun-class prefixes are sometimes dropped before roots bearing this suffix. Such prefix
dropping is obligatory when using privatives as manner adverbs (5.86; see also 13.259,
13.260).

5.86   *Wurdurd,   baw,   wok-yak!*
I   children   ssh   talk-PRIV
      'Kids, quiet, don't talk!' [GID]

5.87   *Ngad kabbal, konhda   warde-yak.*
I   we   plains   here   rock-PRIV
      'We're plains-country people, there's no rock country here.' [GID]

In the avoidance register -*yak* is replaced by -*yaku:ra*, as in *kun-mulbuy-yaku:ra* 'without
meat', whose ordinary language equivalent is *kun-kanj-yak*. This is the only suffix to have a
distinct form from the everyday register. It is likely the following *u* vowel is original: the
privative suffix in Dalabon is -*yakkv*, and there are negative free words in other languages
with final *u* (e.g. Marrgu *yagu* 'no'). However, the reason for the long vowel remains
unclear.

The negative interjections (§13.9.1) *gayakki* (Dj) / *kayakki* (E, I) and *burrkyak* (W) 'no,
nothing' both contain this suffix. The former can be analysed as the third person prefix *ga-
/ka-*, the privative and the suffix -*ki(h)* which is occasionally found on pronouns (§7.1.4) as
well as on some adverbs (§4.3.7). The latter is the privative form of *burrk* 'body' (i.e.
'without body, without physical presence'). For some Gun-djeihmi speakers *yakki* is a
productive negative predicate, which can incorporate nominals and take the full range of
pronominal prefixes:

5.88   *Ngudda   yi-mani-yakki.*
Dj   you   2-money-nothing
      'You've got no money.'

5.89   *Ga-djal-yakki.*
Dj   3-only-nothing
        'There's just nothing here.'

There are a number of lexicalised expressions containing the privative (e.g. *kom-yak* [neck-PRIV] 'uninitiated person' (thus *ngakomyak* 'I'm uninitiated'), but also W *na-/ngal-kom-yak* [I/II-neck-PRIV] 'widower/widow'; *namomoyak* 'spirits of first person' (cf. *mo-* 'bone'), Dj *ngabbard-yak* [father-PRIV] 'person recently bereaved of their father'. In some cases the root to which it attaches is not attested in other combinations, for example *warnyak* 'not want, not feel like', whose root *warn* is not found elsewhere; its antonym is *djare* 'want'.

5.2.1.7 GENTilic -waken

This suffix is used most extensively in the central dialects, Kunwinjku and Kuninjku, with the gentilic meaning '-dweller', when applied to non-humans:

5.90   *djenj   kurrula-waken*
W   fish   saltwater-GENTIL
        'saltwater fish' [PC 203]

5.91   *djenj   ku-bo-waken*
W   fish   LOC-water-GENTIL
        'freshwater fish'

5.92   *na-yin   ku-warde-waken*
W   I-snake   LOC-rock-GENTIL
        'a rock snake'

5.93   *ku-ngol-waken*
W, I   LOC-cloud-GENTIL
        'aeroplane'

This is sometimes expressed by the suffix *-wagen* in Gun-djeihmi as well (5.94), but it is more usual to use the suffix *-djahdjam* (§5.2.1.11). In eastern dialects this relation is expressed by the genitive (§5.2.1.3).

5.94   *Gaworlk   gu-wardde-wagen.*
Dj   friar.bird   LOC-rock-GENTIL
        'The friar bird lives in the rock country.'

It is possible this suffix derives from the verb *wake* 'crawl, move around'.

5.2.1.8 -kadi/-gadi/-karri *'on top of, above'*

This suffix most probably derives from the third person minimal verb form *ka-di/ka-rri* [3-stand] 'it stands' by deserialisation. Indeed, on occasion speakers paraphrase the suffixal form by substituting the locative suffix and using a following independent verb:

5.95   *Ku-bad-karri,   same like kun-bad-kah   ka-di.*
E:D   LOC-rock-on.top   same like IV-rock-LOC   3-standNP
        '*Kubadkarri* (up on the rock) is like *kunbadkah kadi* (it's (standing/vertical) on the rock).'

A vestige of its verbal origin is shown by the fact that, unlike other locational expressions, those with *-gadi* may appear directly as predicates, without requiring a stance verb, as in 5.96 (see also 5.99):

5.96	*Wilpbarra-gadi*	*gun-yerrng.*
MM	wheelbarrow-on.top	IV-wood
	'The wood is on the wheelbarrow.'	

It usually combines with the locative prefix *gu-/ku-*, and it may follow other locational suffixes such as *-djam* or *-djahdjam:*

5.97	*Gu-yed-djam-gadi*	*ga-ni.*
Dj	LOC-nest-PLACE-above	3-sitNP
	'It's sitting on top of the nest.'	

5.98	*Gu-yed-djahdjam-gadi*	*ga-ni.*
Dj	LOC-nest-PLACE-above	3-sitNP
	'It's sitting on top of the nest.'	

5.99	*Malamalayi*	*yi-ma-ng*	*yi-gurrm-e,*	*gun-dung*	*gu-godj-gadi,*
Dj	next.morning	2/3-get-NP	2/3-put.down-NP	IV-sun	LOC-head-above

an-ginjdjek *yi-ma* *yi-manjbekka-n.*
III-cheeky.yam 2/3-getIMP 2/3-taste-IMP
'Next morning you get it and put it down (in the ground oven), and when the sun is overhead, get the cheeky yam out and taste it.'

Occasionally the noun-class prefix is dropped when this suffix is added (e.g. *wardde-gadi* [rock-above] 'up on the rock country', from *gun-wardde* 'rock').

The suffix *kadi/karri* is common in Kuninjku place names, as in *Danngarrkadi* (*danngarr* 'frilled lizard'), *Karlangkarri* (cf. *kunkarlang* 'shoulder'). This is likely to derive from an existential construction of the type 'there is an X (there)' [lit. it-stands X]; this locution is frequently used in talking about sites.

The remaining suffixes are all dialectally restricted.

5.2.1.9 INSTRumental -bewi, -wi

The form *-bewi* is only found in one Kunwinjku lect. It 'has an optional use amongst one clan group, who are from the north-western part of the Kunwinjku area. It is known and not used by some speakers and not known by other speakers' (Carroll 1976:101). Carroll gives the following examples:

5.100	*Bininj*	*ø-danjbo-m*	*na-marnkol*	*djalakkirradj-bewi.*
W	man	3/3P-spear-PP	I-barramundi	wire.spear-INSTR
	'A man speared a barramundi with a wire spear.' [PC 101]			

5.101	*Bininj*	*ø-dulubom*	*manimunak*	*mako-bewi.*
W	man	3/3P-shootPP	magpie.goose	rifle-INSTR
	'A man shot a goose with a rifle.' [PC 101]			

5.102   *Bininj ka-rruka-n   djalakkirradj kun-yal-bewi.*
W   man   3/3-tie-NP   wire.spear   IV-string-INSTR
          'A man will tie the wire spears with string.'

Use of just *-wi* on instruments also occurs in some dialects (MM, W). Formally this is identical to the 'only' clitic *=wi*, and contexts in which it marks instruments are often framed as 'not (using) X, only Y', as in the following example. Here a parsing as the 'only' clitic is defensible, given that the instrumental part of the reading is available to nominal groups not marked with any role suffix (see §13.8.3).

5.103   *Goj   gun-dolng-yih   guny   bi-gok-warrewo-ni, well barri-yam-i*
MM   because IV-smoke-INSTR kangaroo 3/3h-eye-spoil-PI   3a/3P-spear-PI

         eniwei.   Jandu mahni,   an-bu   jal   ngan-wurrk-yak, gun-gurra=wi,
         anyhow   ?   VE:DEM   VE-REL just III-fire-PRIV   IV-wind=only

         madi   jal   li'l bit too hard.
         might.be just
         'Because the smoke blinds the kangaroo, and they could spear him easily. But that other way, just without any fire (to help), just using the wind (i.e. hunting from downwind), that's just a bit too hard (to get close undetected).'

Such contrastive constructions (counterposing privative *-yak* against 'only' *=wi*), then, set the stage for the reanalysis of *wi* as an instrumental suffix.

In the case of *-bewi*, this appears to be made of the ablative *-be* plus the 'only' clitic *=wi*. Recall that ablative *-be* appears on body parts used as instruments (§5.2.1.1). Interestingly, the only example in the Etheringtons' grammar (1994:95) of the use of *wi* as a way of marking instrument is *kunbidwi* 'by hand, with his/her hands'. 'By hand' is an obvious bridging context for the extension of meaning from '(only) using hands' (i.e. without any other instrument), to a more general instrumental sense, and instead of *kunbidwi* one can imagine a use *kunbidbewi* [hand-ABL-only] 'only by hand', with a more general instrument sense subsequently abducted, as witnessed by the above Kunwinjku examples.

5.2.1.10 -djam *'approximate location'*

This suffix, restricted to Gun-djeihmi, indicates approximate location, and is variously translatable as 'around, by, near, next to':

5.104   *Na-wern-gen   gunak-djam   barri-mirnde-rri.*
Dj   MA-many-GEN   fire-LOC   3aP-many-stand
          'Many people are around the fire, by the fire.'

5.105   *darn.gih-djam*
Dj   close-LOC
          'next to'

5.2.1.11 CHAracteristic LOCation' -djahdjam

This suffix, formally a reduplication of *-djam* but much commoner, expresses characteristic location. Again it is restricted to Gun-djeihmi.

The relationality of this suffix is interestingly ambiguous. X-CHACLOC can either mean 'place where one characteristically finds X' ((a) below) or 'thing characteristically found at X' ((b) below).

(a) Characteristic location, place where one finds X[1]

5.106   *djamun-djahdjam*
Dj   dangerous-CHACLOC
      'police station' (i.e. 'place where one characteristically finds danger')

5.107   *bamurru-djahdjam*
Dj   magpie.goose-CHACLOC
      'goose camp; place where one characteristically finds magpie geese'

5.108   *Djirndih-djahdjam merenghmerenggidj   bi-yawa-ni.*
Dj   quail-CHACLOC   [bird.sp.]   3/3hP-seek-PI
      'Merenghmerenggidj looked for Quail in his usual place.'

(b) Thing characteristically found at X, -dweller [= W -*waken*]

5.109   *Wardde-djahdjam   ga-yo.*
Dj   rock-CHACLOC   3-lieNP
      'It's a rock-dweller.'

5.110   *Gukku-djahdjam   ga-yo.*
Dj   water-CHACLOC   3-lieNP
      'It's a water-dweller.'

5.111   *gun-dulk-djahdjam*
Dj   IV-tree-CHACLOC
      'tree-dweller'

5.112   *An-dehne   gurrula-djahdjam   ga-h-di.*
Dj   VE-DEM   sea-CHACLOC   3-IMM-standNP
      'This plant grows by the sea.'

5.2.1.12   *TIME* -keno

This suffix is restricted to Kuninjku, Kune and Manyallaluk Mayali; Dalabon has a cognate suffix -*keno/-kvno*. The vowel is long [ke:no], as one would expect if *ke* were a monosyllabic root with following possessed-noun or part suffix -*no*, but no corresponding nominal root *ke* has yet been found. Note also that the word *yekke* 'cool season', which is found in all dialects, may end with a frozen form of *ke*.

This suffix is used on time expressions denoting longish periods of time, typically seasons, as in E *kudjewkkeno* 'during the wet season' (*kudjewk* 'rainy season'), I *yekkekeno* 'during the cool/dry season' (5.113). In the western dialects these nouns would simply be employed without affixation, except that Gun-dedjnjenghmi occasionally uses the dyad suffix -*go* with

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[1]   Some, at least, of these examples are expressed by compounds of form *ku-bolk-X* in Kunwinjku (e.g. *ku-bolk-djamun* [LOC-place-dangerous] for *djamundjahdjam*).

a similar function (§5.2.4). Note that the eastern dialects also have an ignorative *baleh-keno* 'when' (§7.2.4.2).

5.113   *Ngarri-karu-ng   man-ekke   man-yawok   yekke-keno.*
I   1a-dig-NP   VE-DEM   III-cheeky.yam   cool.season-TIME
          'We dig that cheeky yam in the dry season.' [GID]

Many of the season terms are at least partially verbal (varying in their degree of nominalisation — see §5.6), so it is unclear whether the use in an example like 5.114 is a straightforward affixation to a nominal, or involves the addition of a nominal suffix to an inflected verb in a subordinate clause (a construction discussed in §14.1).

5.114   *Ngarri-kolkbu-n   ka-ngurdurlme-keno.*
E:N   1a-poison.water-NP   3-thunderNP-TIME
          'We throw fish-poison in the water during the stormy season.'

There is one puzzling example in which this suffix has a spatial rather than a temporal meaning; this may preserve an original spatial meaning.

5.115   *Djirrihdih   ku-rralk-keno,   yahwurd, merhmerh na-kimuk.*
I   stubble.quail   LOC-grass-TIME   small   [quail.sp.] MA-big
          'The stubble quail is the one that lives in the grass, it's the small one;
          the *merhmerh* quail is big(ger).' [GID]

5.2.1.13 -deleng *'involved participant'*

The free noun *deleng-no* means 'contents'; this root is also incorporated in verbs such as Dj *deleng-gan* 'carry collected contents'. In Gun-djeihmi, Kunwinjku and Kuninjku it occasionally appears as a suffix on core nominals, with the meaning 'be involved, involving, as involved participant', typically when there is uncertain about exactly who is engaged in the activity, or a shift of context.

5.116   *Wanjh, bi-yam-i.   Bi-yawoyh-yam-i,   bininj bi-yam-i*
W   then   3/3hP-spear-PI   3/3hP-again-spear-PI   man   3/3hP-spear-PI

          bene-bininj-deleng.
          3uaP-man-involved
          'Then he was spearing her. He was spearing again. He was spearing a man,
          they were spearing one another.' [OP 363]

5.117   *Bininj-deleng   mak ngarri-yame-rre-ni,   barri-yame-rre-ni.*
Dj   Aboriginal.person-involve   too 1a-spear-RR-PI   3aP-spear-RR-PI
          'We Aboriginal people used to spear each other too, they used to spear each other.'

5.118   *Daluk-deleng   bene-bu-rr-inj?*
I   woman-involved   3uaP-hit-RR-PP
          'Was it only the women who were fighting?' [Murray Garde, pers. comm.]

5.119   *Na-bininjkobeng, wanjh bi-kayhme-ng   ngal-bu, bene-daluk-deleng.*
W   I-spouse   then   3/3hP-call.out-PP FE-REL   3uaP-woman-involved
          'The husband, then he called out to her, to the two women.' [OP 407]

5.2.2 *Role-marking prefixes*

The most significant role-marking prefix is the locative *gu-/ku-* (§5.2.2.1), which occupies the same paradigmatic slot as the noun-class prefixes and is largely confined to nouns which normally take the Class IV prefix *gun-/kun-*, though it can also replace the *(m)an-* prefix on some nouns of location (cf. *kun-warde* 'rock', *ku-warde* 'on/in the rock'; Dj *an-kabo* 'creek', *gu-gabo* '(at) the creek'). Functionally this prefix occupies a rather unclear position. On the one hand it invites treatment as a portmanteau of noun class plus case (i.e. the locative form of the *gun-/kun-* prefix), which is its likely historical origin and is supported synchronically by the regular substitution of *kun-* and *(m)an-* by *gu-/ku-* in locative contexts. On the other hand it sometimes behaves more like an emergent noun class that marks locations, as seen by the frequency with which *ku*-prefixed nouns for locations are used in nomination outside a clausal context (e.g. *kuwarddehwardde* 'rock country, escarpment' as an alternative to *kunwarddehwardde*, *kulabbarl* 'billabong' instead of *man-labbarl*). At the same time a number of locational expressions have absorbed this prefix, such as *kururrk* 'inside'and *ku-berrk* 'outside'.

Ultimately the difficulty with analysing this suffix is with the logical separation into 'role' and 'cast' (Evans 1997c), that is, into thematic role in a clause on the one hand, and ontological type on the other hand. Similar cases frequently arise when noun class and role marker intersect, such as the *ku-* class in many Bantu languages. This is because the role–cast distinction, which works well with some roles (e.g. patient) and ontological types (e.g. animate), is less clear-cut when one deals with place-denoting nouns, which are at the same time a role (i.e. the location of the action) and an ontological type (i.e. a locale).

Historically it seems likely that Bininj Gun-wok is in the late stages of a shift away from noun class plus case portmanteaux, via pure noun-class prefixes (which is what they are, apart from *gu-/ku-*), to their reduction to derivational prefixes of limited productivity, which is what they are tending to in the eastern dialects and have become in such languages as Dalabon, Rembarrnga and Kungarakany. Heath (1987) argues that the portmanteau prefix system was once more widespead in many non-Pama-Nyungan languages, and that among other things an erstwhile *-n* suffix (still present in the prefixes *ngan-*, *man-* and *kun-* in Bininj Gun-wok but no longer analysable as a distinct morpheme) once marked the accusative form of these prefixes, whose basic forms were *ma-* and *ku-*, as they still are in many non-Pama-Nyungan languages. The *ku-* locative, on this analysis, continues this form with a different function, while the form *ma-* survives only in the demonstrative *makka* (§7.3). The fact that in Kune one encounters locatives of class IV nouns expressed by *ku-X-kah* and even *kun-X-kah* in addition to the form *ku-X*, which is commonest in other dialects, represents a further step away from the use of *ku-* to express location.

A second prefix, though historically parallel, is much more limited in productivity; *mi-* is used as a prefix to vegetable-class nouns (and occasional zero-class nouns) in locative contexts (§5.2.2.3), but only with a handful of lexemes (e.g. *man-kulurrudj* 'palm tree', *mi-kulurrudj* 'under the palm tree'), and most combinations are lexicalised. As Heath argues, the use of the *i-* vowel here may also reflect an old case plus noun class portmanteau.

Two other prefixes on nominals will also be briefly discussed: the class III prefix *man-/(ng)an-*, which can also be used on expressions of manner, and the prefix *berre-*, which in the eastern dialects is added to locationals to indicate direction.

5.2.2.1 *Locative* gu-/ku-

This prefix indicates location in a broad sense, with some extension to time expressions. It may be further combined with locational nominals, the locational preposition *gure/kure,* or

with more precise locational suffixes (§5.2.2.2) to indicate location more precisely. It is restricted to a subset of nouns (mostly in classes III and IV) and never occurs on adjectives.

LOCATIONAL USE As mentioned above, the prefixed nominal does not necessarily function as a locative adjunctit may also function as a locative noun designating a place that can be seen as a location, as in *gu-labbarl* [LOC-billabong] which can mean either 'at the billabong' or simply '(the) billabong'. Nouns prefixed by *gu-*, therefore, are not necessarily adjuncts, and can function as arguments, for example clausal objects:

5.120 *Garri-bawo   bolkgime gu-gabo,   galuk garri-m-durnde-ng.*
Dj   12a-leaveIMP now   LOC-creek later 12a-hither-return-NP
       'Let's leave the creek now and come back later.' (cf. *garri-bolk-bawong*
       'we left the place', showing that this verb governs an object, which can then
       incorporate)

In the following examples locative *gu-/ku-* replaces the *gun-/kun-* of *kun-kawadj* 'sand', *kun-bad* 'rock' and *gun-dulk* 'tree'. (See also Text 4.37, where it replaces the *an-* of *an-gabohgabo* 'area of many creeks, riverine area', and 10.328, where it replaced the *an-* of *an-dulum* 'peak'). As 5.17 illustrates, the locative suffix may be employed concurrently with the prefix; this is particularly common in Kune and Manyallaluk Mayali.

5.121 *Karri-yo   ku-kawadj.*
E:N   12a-sleepNP LOC-sand
       'We sleep on the sand.'

5.122 *Man-djamko   ka-di   ku-bad.*
E:N   III-[grevillea.sp.] 3-standNP LOC-rock
       '*Man-djamko* trees grow in the rock country.'

The locative prefix (optionally in combination with the locative preposition) may be used with body-part nouns if (a) the clause is transitive and the object is located on the body part of the subject (5.123, 5.124), or (b) an intransitive verb specifies the location of some other object on the body (5.125, 5.126). In other circumstances, where the body part is the location and is part of the intransitive subject or object as in 'I punched him on the nose', 'I have a pain in my belly (i.e. I'm sore in my belly)', it is incorporated into the verb (see §10.4.2).

5.123 *Gun-ganj   a-ngorrga-ni   gu-garlang.*
Dj   IV-meat   1/3-carry.on.shoulder-PI LOC-shoulder
       'I carried the meat on my shoulder.'

5.124 *Bi-ka-ng   kore   ku-berd.*
W   3/3hP-take-PP LOC   LOC-tail
       'He took him on his tail.' [KS 40]

5.125 *Ka-karrme   marlakka   ka-welhwelhme   kore ku-kom.*
W   3/3-haveNP bag   3-hangNP   LOC LOC-neck
       'She has a big bag hanging from her neck.' [KS 82]

5.126 *Ku-berre   nuye   ka-h-ngey-di.*
I   LOC-chest his   3-IMM-name-standNP
       'There is a name on his chest (i.e. on a T-shirt he is wearing).'

This prefix cannot freely attach to any noun. It is basically limited to those with overt (*m*)*an-* or *gun-* class prefixes, which it replaces: *an-labbarl* 'billabong', *gu-labbarl* 'billabong, at the billabong'; *gun-wardde* 'rock', *gu-wardde* 'in the rock, on the rock'.

Gunak 'fire' in the Mayali dialects, which has historically absorbed the noun-class prefix *gun-* and lost the root-initial consonant (cf. *kun-rak* in eastern dialects), is an interesting exception: it prefixes *gu-* in Gun-djeihmi and Manyallaluk Mayali without dropping *gun-*:

5.127 *Ba-wakwakbu-ni   gu-gunak.*
Dj   3P-circle.around-PI   LOC-fire
       'It was circling around the fire.'

5.128 *Ba-ngolu-ngi gu-gunak.*
MM   3/3P-roast-PI   LOC-fire
       'She roasted it in the fire.'

The only noun with no class prefix that can take *gu-* (in the Mayali dialects only) is the word *gukku* 'water' which irregularly lenites to *gu-wukku* or even *guukku* in Gun-djeihmi (5.129) and Manyallaluk Mayali (5.130). However, Manyallaluk Mayali allows the use of the locative suffix as an alternative (5.131). The eastern dialects have an alternative lexeme for water, *kun-ronj*.

5.129 *Gunak   ga-marnbu-n,   ga-wurlhge,   ga-bili-ga-n   ganjdji,   gu-wukku,*
Dj   fire   3/3-make-NP   3/3-lightNP   3/3-fire-take-NP   down   LOC-water

       gu-bo-djorlok.
       LOC-water-deep
       '(The namorroddo spirit) makes a fire, lights it, takes it down into the water, deep into the water.'

5.130 *Gu-wukgu   nahni   gapbala,   gapbala   ga-re   gu-wukgu.*
MM   LOC-water   MA:DEM   boat   boat   3-goNP   LOC-water
       'The boat is in the water.'

5.131 *Barri-djuhge-wi gukgu-gah.*
MM   3aP-soak-PI   water-LOC
       'They used to soak the (cheeky yams) in water.'

Other nouns, either unprefixed or prefixed with *na-* or *ngal-*, make use of alternate means to express location. In the eastern dialects they use the locative suffix, and in all dialects they may use the preposition *gure/kure* (§6.4.1.1) or simply employ as an unaffixed satellite nominal (§13.5.3).

FIXED LOCATIONAL EXPRESSIONS WITH *gu-/ku-* Two specific locationals have the *gu-/ku-* prefix: *gururrk/kururrk* 'inside' and *kuberrk* 'outside'. Both represent lexical specialisations of class III or class IV nouns taking the locative prefix, respectively *gun-rurrk/kun-rurrk* 'cave' and (*m*)*an-berrk* 'desert, open place'. In Gun-djeihmi the original meanings 'in the cave' and 'in an open place' (5.132) are still current alongside the 'inside' meaning of *kururrk*, but in the eastern dialects the locative-prefixed forms have become more specialised, so that 'in the cave' will be expressed as *ku-wardde-rurrk* [LOC-rock-cave/inside] and 'in the desert, out in the open' is normally expressed as (*kure*) *manberrk* [(LOC) III-desert], that is, by the III-prefixed noun alone (5.133) or in combination with the locative preposition.

5.132   *because   bedda   wurd   gabarri-yo   gu-berrk,*
Dj   they   children   3a-lieNP   LOC-dry.scrub, higher country

        gu-berrk   gabarri-yo gabarri-bodjare gukku   gabarri-bongu-n.
        LOC-dry.scrub 3a-lieNP   3a-be.thirstyNP   water   3a-drink-NP
        (Commenting on some birds coming down to a waterhole:) 'Because they
        and their children live higher up, in the dry scrub. They're staying in a dry
        place and want to drink some water.'

5.133   *Marrawirri   yiman   mimih   yerre   ka-rohrok   la   man-berrk*
I   [name]   like   [name] behind 3-like   CONJ   III-open.country

        ka-h-di.
        3-IMM-standNP
        '*Marrawirri* is just like a *mimih* spirit but lives in the open bush.' [GID]

The differences between genuine nominal and locational use can be illustrated for *gururrk*
by the following pair of examples. In 5.134 the root *rurrk* is a genuine nominal, meaning
'cave', and occurs both incorporated and with locative *gu-*; in 5.135, on the other hand, it
functions as a locational postposition following another noun giving the locale.

5.134   *Gareh   people   barri-re-i   barri-**rurrk**-na-ni   gu-**rurrk** ...*
Dj   maybe   3aP-go-PI   3aP-cave-see-PI   LOC-cave
        'Maybe people would go and look in the cave ...'

5.135   *Balabbala   **kururrk**   ka-h-ni.*
I   table   inside/under   it-IMM-sits
        '(The cat) is sitting "inside" the table.' (i.e. under the table, in a sort of shelter)

Accompanying the lexicalisation of *kururrk* to a locational in the eastern dialects, there
has been a semantic extension to encompass a larger set of 'inside' scenarios. Thus in Gun-
djeihmi this form would only be used for situations in which the figure is genuinely enclosed,
for example in a cave or house, whereas in Kuninjku it can be used for less bounded types of
enclosure such as (in 5.135) a dog sitting under a chair where only the top and the legs bound
the space. Expansion of the semantic range of *kururrk* in these dialects has been
accompanied by a contraction in the range of *kanjdji* to 'under, down, below' (though it can
still be used for 'inside' relations when these are also 'down', e.g. 'down inside the ground'),
whereas in Gun-djeihmi it spans both 'inside' and 'under' meanings.

A third specialised locational, found in Gun-djeihmi, is *gu-wadda* 'to camp, home'
(5.136), for which there is no corresponding word **gun-wadda* or **an-wadda* in this dialect,
though neighbouring languages (e.g. Dalabon) have *wadda-no* as a free root meaning 'camp,
home'. In Manyallaluk Mayali the *gu-*prefixed form can also mean 'at home' and can
combine with a possessive pronoun (5.137).

5.136   *Ba-ru-i,   gamak,   ma,   garri-yi-rrurnde-ng   gu-wadda.*
Dj   3P-cook-PP   good   well.then 12a-COM-return-NP   LOC-camp
        'It's cooked now, good, let's take it back home.'

5.137   *... gu-watda   nuye*
MM   LOC-home   3mascOBL
        '... in its home, (of a goanna) in its hole.'

Finally, the locational *ku-buldjarn* 'in the middle' (I, E and MM) uses this prefix with the root *buldjarn* 'deep; middle, centre'.

TEMPORAL USE OF *gu-/ku-* With different temporal nouns the semantic effects are different. From nouns in *gun-/kun-* designating times of day, *gu-* prefixes derive time adverbials meaning 'at X, in the X':

5.138   *gun-gak/kun-kak*   'night, night-time'   *gu-gak/ku-kak*   'at night'

One of the six main season names includes this prefix with the root for 'rain':

5.139 Dj   *an-djeuk*   'rain'   *gu-djeuk*   'wet season'
     W, I   *man-djewk*   'rain'   *ku-djewk*   'rainy season'

In rare cases, temporal *gu-* may attach to inflected verbs functioning as deverbal nominals:

5.140   *Gu-mege   aye   a-ni   gu-ba-rrowe-ng.*
Dj   LOC-DEM   I   1-sit   LOC-3P-die-PP
     'I was present at his funeral.' (Later given as *Gumege aye ani gube barroweng.*)

5.2.2.2 gu-*X-positional*

Precise location can be expressed, in Gun-djeihmi, by prefixing *gu-/ku-* to nouns compounded with various roots denoting positional parts, such as *gu-M-burrk* 'in the middle of X' (5.141, 5.142; cf. *burrk* 'body'), *gu-X-wodj* 'underneath X' (5.143; cf. *gun-wodj* 'fallen log'), and *gu-X-godj* (cf. *gun-godj* 'head' 'to the top of X' (Text 4.41; cf. *gun-godj* 'head').

5.141   *A-milmilme   ganjdji-ga   gu-bo-burrk.*
Dj   1-diveNP   down-LOC   LOC-water-middle
     'I dive into the middle of the water.'

5.142   *Gukku   ga-bo-yakm-en   gu-rrung-burrk.*
Dj   water   3-water-vanish-NP   LOC-sun-middle
     'The water will vanish in the middle of the dry season.'

5.143   *Gukku   bi-burriwe-ng   gu-rrulk-wodj.*
Dj   water   3/3hP-throw-PP   LOC-tree-fallen.log
     'The water threw him under a log.'

5.2.2.3 'VEGetable LOCative' mi-

As discussed above, this is likely to have been the original locative form of the class III (vegetable) prefix, but is now restricted in use. Most dialects a half dozen noun roots attested with this prefix. Usually these are Class III nouns, though some are Class IV or unprefixed.

A rare example of it being used as the locative of a *man*-class noun is 5.144, from Hale's 1959 fieldnotes on Kunwinjku; in this example *mi-* replaces the regular Class III prefix *man-* of the noun *man-kulurrudj* 'palm':

5.144   *Ka-h-yo   kure   mi-kulurrudj.*
W   3-IMM-lieNP LOC   VEG.LOC-cycad.palm
         'He's sleeping under the cycad palm.' [KH 27]

Garde's dictionary of Kuninjku contains a comparable example of *mi-* being used in a locative sense in *mi-kurladjdjakel* '(frogs lie) in the sedge grass', as against the citation form *man-kurladjdjakel*. Further uses occur in song language, for example the use of *mi-balmardi* 'in the hollow log' based on *man-balmardi* 'hollow log' in a recently composed Kuninjku song in the Wurrurrumi style (Djimarr et al. 1994).

As a second example of this use, consider the following pair of clauses: in the first a Class III noun functions as subject, taking the *man-* prefix, while in the second it functions as a location, taking the *mi-* prefix. Note that not all dialects use the *mi-* form with this root. In Gun-djeihmi, for example, 'in the jungle' uses the *gu-*root — *gu-ngarre* — and in Kuninjku, where the citation form is *man-ngarre*, the locative can be expressed either as *mi-ngarre* or with a preposition as *kore man-karre*.

5.145   *Man-ngarre   ka-karrme warnwarnh.*
E:D   III-jungle   3-haveNP   ficus.racemosa
         'The jungle has *ficus racemosa* trees.' (i.e. 'There are *ficus racemosa*
         trees in the jungle.')

5.146   *Mowirn   mi-ngarre   ka-di.*
E:N   crested.hawk   VEG.LOC-jungle 3-standNP
         'Crested hawks live in the jungle.'

As a third illustration, consider how one says 'in the anthill'. In Kunwinjku one substitutes locative *ku-* for the *kun-* prefix in *kun-boy*, whereas in Kuninjku one uses *mi-* with its normally unprefixed equivalent *kambe* 'anthill, antbed':

5.147   *Nahni   man-kung ka-h-di   kure ku-boy.*
W   MA:DEM III-honey   3-IMM-standNP LOC   LOC-anthill
         'There is honey in this antbed.'

5.148   *Nanih   man-kung ka-h-di   kure mi-kambe.*
I   MA:DEM III-honey   3-IMM-standNP LOC   VEG.LOC-anthill
         'There is honey in this antbed.'

Other combinations of *mi-* with zero-class roots are attested: Garde's Kuninjku dictionary lists *mi-kurrula* 'in the sea' (*kurrula* 'sea') and *mi-kurrambalk* 'in the house' (*kurrambalk* 'house', etymologically *ku-rrang-balk* LOC-door-blocked but synchronically unanalysable).

In Gun-djeihmi this prefix is merely derivational, being limited to certain terms for plant habitats. In this usage it is prefixed to a retriplicated or reduplicated plant name characteristic of the habitat (§5.3.3.1).

Finally, some place names contain this prefix, such as *Mikorle* (cf. *man-korle* 'bamboo'), a place name in an area with many bamboo trees.

5.2.2.4 (m)an- *'Class III, manner'*

A variety of adverbial uses of nominals can be signalled by replacing the regular noun-class prefix with the prefix marking class III/vegetable gender, which takes the form *(ng)an-*

in the Mayali dialects and *man-* elsewhere (§5.5). Eastern dialects prefer to use the suffix *-no* (cf. W *man-molk*, I, E *molkno* 'sneakily, secretly').

Although in some cases the prefix could be argued to be an instance of vegetable agreement with an ellipsed nominal (e.g. *gun-wok* 'language' in 5.149, which would govern vegetable agreement in this dialect), in other cases such as 5.150 and 5.151, where the agreement governor is the second or first person pronoun, this explanation cannot be invoked. It is possible, though, that the adverbial use of this prefix arose through reinterpretation of vegetable agreement in examples like 5.149.

Adverbial uses of this prefix include:

(a) Quantification of the main predicate

5.149	*Gabarri-wokdi*	*ngan-wern.*
Dj	a-talkNP	III-much

'They talk too much.' (*Na-wern-gen* would mean 'the many of them talk'.)

(b) Quantification of a non-subject, including entities in a part–whole relation to the subject (5.150) or an instrument (as with *man-mim-kudji* '(killed a buffalo) with one bullet').

5.150	*Yi-rrad-da-ngimen*	*an-dad-gudji!*
Dj	2-leg-stand-IMP	III-leg-one

'Stand on one leg!'

(c) Secondary predicate on a subject of any person or gender:

5.151	*A-rredjdjo-i*	*a-bekka-n*	*an-mak.*
Dj	1-fuck-PP	1-feel-NP	III-good

'I had a fuck and now I feel good.'

5.152	*Kabi-kuk-ngime-wo-n*	*kabi-kuk-mirnhke.*	*Kurlba*	*wanjh*	*ka-lobme*
W	3/3h-body-enter-give-NP	3/3h-body-bendNP	blood	then	3-run

med	*man-bulerri*	*Man-bulerri.*	*Man-bulerri.*	*Eeee.*	*Wanjh*
wait	III-dark	III-dark	III-dark		then

ka-m-bad-bebme		*wurd*	*man-bele.*
3-hither-now-emergeNP	a.bit	III-white	

'He puts the body (of the effigy) inside (between trees) and bends it. Then the blood starts to run out, first it runs dark, dark, dark. Then hey, it starts to come out clear.' [KH 159]

Sometimes similar functions are signalled by the absence of a noun-class prefix altogether (see 13.5.3).

5.2.2.5 DIRECtion berre-

In Kune and Manyallaluk Mayali the prefix *berre-* is used on a number of locational nominals to indicate direction, as in *berre-kaddum* 'upwards' (*kaddum* 'up high, (on) top'), *berre-koyek* 'eastwards'. This may reflect Dalabon influence, since Dalabon has an identical prefix, e.g. *berre-djihbi* 'to the north, northwards' (D *djihbi* 'north').

5.153   *ø-dukka-ng*   *ø-wayhke-ng*   *na*   *berre-kaddum*   *kure*   *ku-ronj-hkah*
E:D   3/3P-tie.up-PP 3/3P-lift-PP   now   DIREC-up   LOC   LOC-water-LOC

kuberrk.
outside

'He tied it up (the crocodile) and lifted it up out of the water.' [Lena Yarinkura: Two brothers]

In the other dialects these roots are used either with no overt marker of locatione (e.g. *kaddum* could be substituted here for *berre-kaddum*) or with the locative suffix (e.g. *gaddum-ga* in 5.68).

5.3 Miscellaneous nominal morphology

In this section we cover the remaining nominal morphology, except for compounding, gender/noun class, and deverbalisation, which are treated in subsequent sections.

5.3.1 Relational affixes

A diverse group of suffixes are grouped semantically around the marking of various types of relation between entities.

5.3.1.1 'POSSesseD noun' -no

In western dialects this suffix optionally marks nouns possessed by third person possessors, which may be overt or implicit. It probably derives from a form of the third person singular pronoun, whose root is *nu*, but at some time depth since cognate suffixes are found in Dalabon (*-no*) and Rembarrnga (*-na*).

5.154   *Njale na-wu   al-yurr   ga-ngu-n   marlaworr-no ga-ngei-yo?*
Dj   what   MA-REL   II-grasshopper   3-eat-NP   leaf-POSSD   3-name-lieNP
         'What is the name of that (plant) that Leichhardt's grasshopper eats its leaves?'

5.155   *Yi-belenghme an-bundjek an-djudj   marlaworr-no-be.*
Dj   2-lickNP   III-manna   III-*e.bleeseri*   leaf-POSSD-ABL
         'You lick manna off the leaves of *eucalytus bleeseri*.' [EH]

5.156   *Ngal-gabulai   wurdurd-no   barri-dowe-ng.*
Dj   II-(name)   children-POSSD   3aP-die-PP
         'Ngalgabulay's children have all died.'

In these dialects *-no* may also be used anaphorically as the sole marker of a possessor that has been mentioned or is clear from context (see also Text 1.9). So far my corpus for this use in these dialects only contains examples where the possessor relationship is part to whole:

5.157   (People are sitting around a camp fire and eating filesnakes. One says:
Dj   *Gom-no   gan-wo!*
         neck-POSSD   2/1-giveIMP
         'Give me its neck!'/'Give me a neck of one of them!'

In Eastern dialects like Kuninjku and Kune, as well as in Manyallaluk Mayali, the function of this suffix has been greatly extended and need no longer be anaphoric, to the point where in Kune it is simply a marker of parthood in the broadest sense (parts of bodies, plants, the landscape and the diurnal cycle). Because this development is intimately tied up with changes in the noun-class system, which led to the partial replacement of the *man-* and *kun-*classes, and arguably represents the development of a further, 'part' class, it will be discussed in the section on noun classes in §5.5.2.5.

5.3.1.2 DYAD -go/-ko

This suffix has a variable semantic range across dialects, centred around the kinship dyad meaning of 'pair such that one calls the other by some kin term (K)' but extending through other cases where two entities share a property, or co-occur, to include a straightforward dual sense in some dialects. Such a pattern of chained polysemy is shared with comparable suffixes in a number of other Australian languages, and parallels the range of Dalabon *-ko*. The situation is further complicated by the existence of a distinct morpheme *-miken* for expressing the dyad relationship with certain kin terms (see §5.3.1.3).

KINSHIP DYAD SENSE This is the most productive meaning across dialects: derived nominals of the form *K-go* designate pairs of people, one of whom calls the other K. Kinship roots taking *-go* are never self-reciprocal; with self-reciprocal kin terms (e.g. *kakkak* MM, DC) dyads are formed with the PROPerty suffix (§5.3.1.3). Where the kin term is a compound, only part of it appears in the dyadic term: Dj *wurdyau* 'child (of female ego)' > *yau-go* 'mother-child pair'; *beiwurd* 'child (of male ego)' > *beigo* 'father-child pair'.

5.158	*guni-yau-go*
Dj	2a-child.of.female-DYAD
	'you two, mother and child (or mother's brother/sister's child)'

5.159	*bani-bei-go*
Dj	3ua-child.of.male-DYAD
	'father and child, father's sister and nephew/niece'

This sense produces an expression of cardinality two, but the root itself is not predicable of both referents (since, for example, the mother is not a *yau* 'child'); what the two referents share is participation in a given kinship relationship.

In Kunwinjku the form *-karrngko* has the unexpected meaning 'person and his *kakkali*', despite the root *karrng*, etymologically 'mother'. It is unclear why the root for 'mother' should be used here.

SHARED PROPERTY SENSE This is exemplified by such terms as Dj *ngei-go* 'pair of namesakes' (based on *gun-ngei* 'name'), I *rid-ko* 'pair involved in fighting one another' (based on *kun-rid* 'fight') and W *ngane-kunak-ko* 'we two co-brothers-in-law' (based on *kunak* '(camp)fire', a common symbol for marriage). These dyads have some property in common, to which the root refers more or less directly. These terms may be used with either dual or singular reference:

5.160   *Bini-ngey-ko.*
E   3ua-name-DYAD
         'They two are namesakes.'[2]

5.161   *Ngei-go   arduk   ga-m-re.*
Dj   name-DYAD   my   3-hither-goNP
         'Here comes my namesake.'

CO-OCCURRENCE SENSE Examples of this are W, I *dirdko* [moon-DYAD] 'shadow of moon, moonlight' (5.162) and the Kuninjku season names *kunkurra-ko* [wind-DYAD] 'windy season', *wularri-ko* [westerly wind-DYAD] 'westerly wind season', *barra-ko* 'northwest wind season' and *djimurru-ko* 'east wind season' (5.163). Here the shared property is time of occurrence; that is, the season is defined as occurring when a particular wind is blowing, or the visual conditions of moonlight occur when the moon is up. In contrast to the other senses of the dyad, here the nominal expression refers only to the element nominated by the root, for example, the moonlight rather than the moon itself.

5.162   *Dird-ko   karri-re.*
I   moon-DYAD   12a-goNP
         'Let's go by moonlight.' [GID]

5.163   *Djimurru-ko   kun-kurra ka-bu-n   koyek-beh.*
I   east.wind-DYAD IV-wind   3-hit-NP   east-ABL
         'In the east wind season the wind blows from the east.' [GID]

DUAL SENSE This sense, in which the cardinality of two found in the dyad sense is abducted without any implication of reciprocity, is again restricted to the eastern dialects (I, E and MM). It can occur both with non-relational roots, like Kuninjku *dabbarrabbolk-ko* [old.person-DYAD] 'two old men' and *ngal-daluk* 'female' in 5.164, and with relational roots like *yaw* 'child' in 5.165.

5.164   *Na-rangem   ∅-dokme-ng,   ngal-daluk-ko   rerre.*
E:N   I-boy   3P-lead.off-PP   II-woman-DYAD behind
         'The boy is the oldest one; the two girls came later.'

5.165   *Gun-matj ngabanbani-yaw-wo-ng   yaw-no-go.*
MM   IV-swag   1/3du-child-give-PP   child-3POSSD-DYAD
         'I gave blankets to her two kids.'

5.3.1.3 PROPerTY -migen/-miken

This has three broad senses: the derivation of terms for properties (including abstracts), the derivation of new terms for entities possessing the property denoted by the root (often verbal), and the formation of dyadic kin terms, based on self-reciprocal kinship roots. These dyadic terms effectively designate groups characterised by the possession of a particular type of kinship relationship between their members.

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2   This is synonymous with *kabini-ngey-yo* (lit. 'they two are called'), an interesting example of a verbal expression where the collective/shared meaning is simply left implicit.

PROPERTIES These are almost all based on verbal roots denoting events giving rise to the property; the property itself is then often denoted by a *kun*-class noun. The suffix *-miken* replaces the thematic (e.g. *kukdadjke* 'butcher, divide' > *kukdahdadjmiken* 'striped with blocks of different colour'; *dangbalhme* 'close, block (door, cave, passage)' > *dangbalhmiken* 'lockable (of door)'; *modme* 'be quiet, silent' > Dj, W *modmiken* 'peace, peaceful', but also k.k. *modme* 'get, obtain' > I *kun-modmiken* 'power, strength'). Note that the form *-miken* resembles the incorporating form *-mi* of the commonest thematic and may derive historically from a sequence of that plus genitive *-ken*. In a few cases there is either no known root (e.g. *layirrimiken* 'striped, having stripes', with no known verb *layirrime*) or the semantic relation to the verb is obscure, as in *dadjmiken* 'solid in build, having big muscles' (cf. *dadjme* 'cut off, stop'). Sometimes the root is reduplicated in the property term (e.g. *dilhme* 'make dots' > *dilhdilhmiken* 'dotted').

A sentence example involving a derived adjective of this sort is:

5.166   *Barndol*   *kuk-dah-dadj-miken.*
I   carpet.python   body-REDUP-cut-PRPTY
        'The carpet python has striped blocks of colour.' [GID]

ENTITIES WITH A GIVEN PROPERTY There are only a couple of these, as in *djorrngmiken* 'straightened spear shaft' < *djorrngme* 'straighten (e.g. spear)', and *djerrkud-mi-ken*, the Kun-kurrng term for 'knife' in all dialects, for which there is no corresponding root *djerrkudme*. A sentence example of the first is:

5.167   *An-djorrng-miken*   *barri-mun.ge-yi.*
Dnj   VE-straighten-PRPTY   3aP-send-PI
        'They used to send straightened ones (spear shafts).'

DYAD The property suffix combines with self-reciprocal kin terms to form dyadic terms equivalent in meaning to the dyads with *-ko* discussed in §5.3.1.2. Presumably the semantic motivation for the use of the 'property' suffix to form dyads is that members of the group share the property of calling each other by the root term. Some examples are (in their Dj form) *gakkak-migen* 'pair calling each other *gakkak*, typ. MM/DC pair', *mawahmigen* 'pair calling each other *mawah*, typ. FF/SC', *makkahmigen* 'pair calling each other *makkah*, typically FM/SC'.

One typological variable exhibited by dyad terms in Australian languages is the degree to which their cardinality is limited to two (see Merlan & Heath 1982; McGregor 1996). Certainly two-member groups are the prototype in Bininj Gun-wok, and in such cases the noun may either be left unprefixed for number (5.168) or bear a prefix (5.169) overtly specifying that the number is two:

5.168   *gakkak-migen*
Dj   MM-PRPTY
        'mother's mother and her daughter's child'

5.169   *bani-mawah-migen*
Dj   3ua-FF-PRPTY
        'father's father and his son's child'

However, it is possible to vary this cardinality up or down, as long as all members of the denoted group (including the non-referred to propositus if singular) form a set within which

all kin relationships are either of the type named by the root, or of siblinghood (e.g. two brothers plus the man who is classificatory father-in-law to both of them). Within the data recorded so far it appears that such non-dual uses are found with the *-migen/-miken* dyads but not with the *-go/-ko* dyads.

An example of a dyad term used with cardinality greater than two is:

5.170   *Gurri-doidoih-migen   gurri-m-ra-i!*
Dj   2a-WF/DH-PRPTY   2a-hither-go-IMP
        'You wife's father/daughter's husband group come!' (i.e. a group
        containing two or more brothers with one or more fathers-in-law to them)

On the other hand, it is possible (at least with some terms) to refer to just one member of a dyadic pair by prefixing the appropriate noun-class prefix. Thus from Dj *makkah-migen* 'FM/DC pair' one can derive the feminine minimal term *al-makkah-migen* [FE-FM/DC-PRPTY] which can mean either 'father's mother, in company of her daughter's child' or 'her father's mother' that is, one member of the dyad is foregrounded as the referent, selecting the relevant noun class, and the other backgrounded as propositus (i.e. as 'kin possessor'). Likewise, the Mayali dyadic stem *manjmigen* 'mother's father/daughter's child dyad' can be used either with a dual prefix, as in *bani-manjmigen* 'they two, mother's father and his daughter's child', or with a singular noun-class prefix as in *namanjmigen* 'his/her mother's father'.

Sometimes the property dyad term is lexicalised and has no non-dyadic equivalent. In Kuninjku the singular masculine form *na-djongmiken* means 'his/her mother's mother's brother' and the singular feminine form *ngal-djongmiken* means 'his/her mother's mother', but unlike the examples with *mamamhmiken*, for example, there is no form **djong* meaning 'mother's mother' (although there is a root *djongok* meaning 'MMBD'). In other cases there is semantic slippage between the root and the *-migen* term; with *manjmigen* there is a root *manjme, nga* kinship verb used in trirelational expressions like *yimanjmeng* 'the one who is your wife and my niece, you and I being related as *na-kurrng*', but the 'mother's father/ daughter's child' relationship represented by the dyad term (see preceding paragraph) does not correspond to any of the relationships represented in the trirelational term.

SPATIAL RELATIONSHIP A single locational term is made up of the verb prepound *borled* (*borledme* 'turn around') plus the property suffix. *Borledmiken* means 'behind', as in the following example; it is sometimes suffixed (5.2a).

5.171   *Warde   borledmiken   yi-yawa-n.*
I   try   behind   2/3-look-NP
        'Try looking behind.'

There is a second spatial relationship term with this suffix, but limited to Kun-kurrng: the adjective *kalawhmiken* 'up high', which is equivalent to the verb *barndi* 'be up high' in the everyday register. It derives from the Kun-kurrng verb *kalawhke* 'place up high' (= o.l. *barnname*).

5.172   *Konjkonj   ka-kalawh-miken.* (k.k.)   =   *Wayarra   ka-barndi.* (o.l.)
I   devil   3-high-PRPTY   devil   3-be.highNP
        'Devils live high up.'

5.3.1.4 -yik- 'deceased, the late'

This appears prefixed to clan names, between the noun class prefix and the root giving the clan name (e.g. *Na-yik-Marrirn* 'the late Marrirn man', Dj *Al-yik-Murumburr* 'the late Murumburr woman', I *Na-yik-Wurrbbarn*. 'the late Wurrbbarn man'). Most speakers say it means simply 'deceased' or 'the late', being used as a polite way of referring to deceased people by giving their clan affiliation.

5.173　*Gonhda-gah　nuye　nungan,　na-Wagadj-beh　nuye,　na-yik-Badmardi　bu*
Dnj　　 here-LOC　　his　　himself　 I-[skin]-ABL　 his　　 I-late-Badmardi　 SUB

　　　　nuye-ni　gun-red.
　　　　his-P　　 IV-country
　　　　'This side of the gorge is his, from NaWagadj's side, it's the country of the late NaBadmardi.'

However, one Dj speaker said it could be used more widely as an expression of respect, that is as a polite way of referring to clan members, and counted as Gun-dembui alongside the use of trirelational kin terms.

In languages to the north and east a formally related prefix has a slightly different meaning, always in combination with the Bininj Gun-wok noun-class prefixes, which suggests borrowing with some semantic shift. In Maung a prefix -*y(i)k*- appears before the noun-class prefix and subsection roots, and denotes a close friend or relation of that subsection (e.g. *Naykamarrang, Ngalyikamarrang* 'male/female friend or close relation of the *kamarrang* subsection'). In Rembarrnga (McKay 1975:74) the prefix appears on clan names and is apparently no different in meaning to straightforward use of the noun class prefix (e.g. *Nabalngarra* or *Nayikbalngarra* 'man of Balngarra clan').

5.3.1.5 INSEParable -dord

As a free noun this root means 'louse', but it has been grammaticalised in Kuninjku, via compounding, into a suffix meaning 'inseparable from' or 'always connected with'. Two Kune examples in which the collocation is phrasal and has not developed into a suffix are *namarden dordno* [lightning louse-POSSD] 'Leichhardt's grasshopper (which always appears during the lightning storms preceding the wet season]' and *barrk dordno* (lit. black wallaroo, its louse) 'small bird that calls out *djiwiwi* whenever it sees a black wallaroo'. In Kuninjku and Kune this second form has an alternant in which *dord* is simply suffixed and appears without the possessed marker -*no*:

5.174　*Barrk-dord*　　　　*kan-marne-yime-ninj　ngadberre,　barrk*
E:D　　black.wallaroo-INSEP　3/1a-BEN-say-IRR　　usOBL　　　 black.wallaby

　　　　ka-rrarnh-ni.
　　　　3-near-sitNP
　　　　'The *barrkdord* bird tells us if a black wallaroo is nearby.'

Further examples of the suffixal use from Kuninjku, but with a more conventionalised root, are *mim-rdord* [eye-INSEP] 'someone who hunts all the time, especially who is always on the lookout for a particular type of animal' and *korn-dord* [crotch-INSEP] 'hunter who specialises in one particular animal'.

5.3.1.6 -marrumarru *'always engaged in' (I)*

In Kuninjku this attaches to nominal roots or to verbals in their incorporating form, and derives nominals meaning 'someone always engaged in' either the action denoted by the verb, or some action associated metonymically with the nominal root. Thus the verb *djekme* 'laugh' (incorporating form *djekmi* — see §12.1) yields *djekmi-marrumarru* 'someone who is always laughing' (this can also be rendered by compounding with the verbal prepound: *djekmarrumarru*), while the noun *kun-bodme* 'back' yields *bodme-marrumarru* 'someone who sits doing the same thing for a long time', as in:

5.175   *Ngal-bodme-marrumarru, ka-djal-borolhme kun-yarl.*
I   II-back-always.engaged.in 3-just-spinNP   IV-string
         'She's continually sitting there spinning string.' [GID]

5.176   *Nga-bodme-marrumarru   dolobbo   nga-bimbu-n.*
I   1-back-always.engaged.in   bark.painting 1-paint-NP
         'I've been continually doing bark paintings all the time.'

5.3.2 Plural formation

Most nouns have no special plural form; rather, number is shown by a range of sites on the verb, including the pronominal prefix slots, numero-spatial prefixes, and collective uses of the reflexive/reciprocal, as well as the use of plural demonstratives and quantifying adjectives such as *na-wern* 'many' and *rowk* 'all' and (in Kune and Manyallaluk Mayali) the noun *ngong* 'mob' (e.g. Text 7.2), which in Manyallaluk Mayali is used as a clitic (§6.5.2).

However, for some nouns there are special plural forms, mostly formed by some sort of reduplication, and the possibility of using pronominal prefixes with nouns to indicate number also exists; these are treated here. There is considerable variability across dialects in this part of the grammar, and the use of the plural forms of nouns is optional rather than obligatory.

REDUPLICATION In general, reduplication for plural is lexeme-specific and, unlike with verbs, one cannot apply the various formal types productively throughout the nominal lexicon. However, some guidelines can be formulated: basically, the classes of noun permitting reduplicative plurals are human terms like *daluk* 'woman' or *ngal-kohbanj* 'old woman', some kin terms, clan names (though only attested in western dialects), some terms based on 'country of origin', and (in Kunwinjku only) subsection terms. Examples given below will include representatives of each of these types.

Reduplicated plural forms have three options when it comes to prefixation:

(a)   dispense with noun-class prefixes, whether or not these are present in the singular form: W *morlenj* 'woman', *morleh-morlenj* 'women', Dj *na-/al-gohbanj* 'old man/woman' but *gobagohbanj* 'old men, old women' (the form of this term varies slightly across dialects, in W *kohbahkohbanj* and E:D *koboh-kobanj*).

(b)   take a singular noun class marker despite their plural reference (e.g. Dj *al-gornh-gorngumo* 'aunties', *na-yuh-yunggi* 'ancestors, first people'). The generalised use of the prefix *na-* for non-singular reference is particularly common in Gun-djeihmi (see §5.5.4.2), but is also attested in Kunwinjku (e.g. *na-rrangbon* 'Dangbon people') and Kuninjku (*na-momoyak* 'ancestral spirits').

(c)   take a plural pronominal prefix on the reduplicated form (e.g. Dj *barri-marlah-marladj* 'orphans, children who have lost their mother').

The further east one goes in the dialect chain, the more use is made of plural pronominal prefixes rather than reduplication and/or prefixation with *na-*, so that 'first people' in Kuninjku is *birri-yunggi* instead of Dj *nayuhyunggi*, and 'Kunwinjku-speaking people' is *birri-rinjku* instead of W *nawinjku*. The Kunwinjku dialect has a mix of both strategies, with use of the *na-* prefix for certain collectivities (e.g. *narrangbon* as given above), and the *birri-* prefix for others (cf. *Na-rol* 'man of Rol clan', *Ngal-rol* 'woman of Rol clan', *Birri-rol* 'people from Rol clan' — E&E 93).

With regard to reduplication of root material, plurals follow one of several patterns:

(a)   Full single-syllable reduplication (§3.6.1) is used where the root is monosyllabic:

5.177	*ngal-yauk*	→	*yauk-yauk*
Dj	II- young girl		REDUP-young.girl
	'young girl'		'young girls'

Where the root is etymologically a compound whose first element is monosyllabic, either full single-syllable reduplication (5.178) or glottal-closed single-syllable reduplication (5.179) are used:

5.178 Dj   *al-gorn.gumo* 'aunt'   →   *al-gornh-gorn.gumo* 'aunts'

Dj   [Etymologically based on a word for father, *gorn.gumo*, whose first
             element *gorn* means 'crotch, groin']

5.179 Dj   *al-beiwurd* 'daughter (of male)'   →   *al-beh-beiwurd* 'daughters (of male)'

Some other roots also allow this pattern (e.g. Kunwinjku *ngal-dah-daluk* 'females' < *ngal-daluk* 'female' and *na-rah-rangem* 'boys' < *na-rangem* 'boy').

(b)   Disyllabic roots, with the exception of subsection terms, form their plurals by glottal-closed disyllable reduplication.

5.180

Dj	*na-/al-marlad*	'orphan'	*barri-marlah-marladj*	'orphans'
W	*morlenj*	'woman'	*morleh-morlenj*	'women'
W	*daluk*	'woman'	*daluh-daluk*	'women'
Dj	*bininj*	'person, Aborigine'	*binih-bininj*	'people, Aborgines'
W	*na-ngordo*	'male leper, cripple'	*ngordoh-ngordo*	'lepers, cripples'
Dj	*na-marrirn*	'male of Marrirn clan'	*nguni-marrih-marrirn*	'you twoMarrirn clan members'
Dj	*na-walem-gen*	'westerner'	*waleh-walem-gen*	'westerners'

(c)   Subsection terms, in Kunwinjku only, usually form their plural by open disyllable reduplication, though there is a great deal of variation here, both in whether one or two syllables are reduplicated and in whether two-syllable reduplications merely take the root as input, or include the noun-class prefix as well. (See Etherington and Etherington 1994:13 for a list of plural forms of subsection terms.) Compare *Ngal-kama-kamarrang* 'Ngal-kamarrang women', which reduplicates the first two syllables

of the root, with *Ngalba-ngal-bangardi* 'Ngal-bangardi women', which reduplicates the first two syllables of the prefixed word.

Other examples of the first pattern are *Na-bula-bulanj* 'Nabulanj men', *Na-banga-bangardi* 'Na-bangardi men' and *Na-kodjo-kodjok* 'Nakodjok men', and examples of the second are *Ngalwa-ngalwamud* 'Ngal-wamud women' and *Ngalwa-ngalwakadj* 'Ngalwakadj women'. Note that only female terms include the prefix in the input to reduplication. There are also subsection terms which form their plural by single-syllable reduplication, such as *Na-wa-wamud* 'Nawamud men', *Na-wa-wakadj* 'Nawakadj men', *Nakokodjok* 'Nakodjok men' (alt. form), *Ngal-ba-bangardi* 'Ngalbangardi women' (alternate form) and *Ngal-ko-kodjok* 'Ngalkodjok women' (alternate form).

In addition, there is the irregular pair *Na-kang-kangila* and *Ngal-kang-kangila* (resp. 'Nakangila men' and 'Ngalkangila women') which are the only reduplications to contain a *CVng-* prefixal sequence in which the *ng* derives from an initial segment.

In making sense of this irregularity it must be borne in mind that most languages of the region have their own versions of these terms, and those found in Maung and Iwaidja, in particular, are commonly employed by some individuals at Kunwinjku, so the potential for different borrowed forms to be used in this domain, according to the quirks of individuals' life histories and particular kin connections, is significant.

There are a number of other semi-regular reduplicate plurals. For example, 'old people' is *dabbarrabbolk* (Dj) and *dabborrabbolk* (W); the root *dabbolk* from which this is derived (with flapping and, in Dj, vowel harmony) does not occur alone, but is found in the derived verb *dabbolkmen* 'become an adult'. Reduplicated words for 'children', variously *wurdwurd* (W) or *wurdurd* (Dj, I, MM), no longer correspond to a singular unreduplicated form **wurd*, though it is likely this once existed on the basis of the Dalabon cognate *wurd-ngan* 'my child' and the specialised BGW word *wurd* 'womb; capacity for biological motherhood'. The contemporary singular form for 'child', however, is *wurdyaw*, etymologically a compound of *wurd-* plus another root for 'child', *-yaw*, that is also the incorporable form. In Gun-djeihmi, the root *wurdurd* can now be used to mean 'child' when used as a predicate: e.g. *nga-h-wurdurd-ni* [1-IMM-child-P] 'when I was a child'.

A few recent loans, ultimately from English but filtered through Iwaidja or Maung, take the Iwaidja/Maung nominal plural prefix *warra-* (e.g. *warra-djabbani* 'Japanese (pl)'). Interestingly, these sometimes retain features of English phonology, as in *warra-mishinri* 'missionaries' with its palatal fricative [wara-miʃinɻi]. These forms are limited to the Kunwinjku dialect, and it is likely they were introduced there through missionary activity from Goulburn Island, mediated by Maung-speaking missionaries such as the Reverend Lazarus Lami-Lami.

5.3.3 Expressions of plentitude

5.3.3.1 Eco-zone terms

Names for ecozones or geographical zones can be formed by reduplicating or retriplicating a root denoting a characteristic geographical or botanical feature of the zone, and prefixing a lexically determined noun-class or locative prefix. This set is particularly well-developed in Gun-djeihmi, from which all examples in this section are drawn unless

otherwise indicated, though parallels in other dialects are noted where known. Many equivalents in other dialects, however, are formed in other ways — Dj *an-yakngah-yakngarra* (5.181) is translated into Kune as *dayarr-wern* [pandanus-many], using the 'plenty' suffix (§5.3.3.2), while Dj *an-djohdjo-djoh* 'wattle grove' is rendered W *mi-djoh-wern* [VEG.LOC-wattle-many] using the same strategy plus the vegetable locative prefix.

Three copying patterns are found, according to the structure of the base. In addition, many zone terms replace the noun-class prefix of the base with the locative or vegetable locative prefix.

If the root is trisyllabic, a disyllabic copy is formed by Glottal-closed Disyllable Reduplication (§3.6.4):

5.181   *an-yakngarra*   →   *an-yakngah-yakngarra*
        III-*pandanus.spiralis*   III-ZONE-*pandanus.spiralis*
        'pandanus scrub'

Some disyllabic roots also apply this rule, such as *gun-wardde* 'rock' > *gu-warddeh-wardde* 'rock country; sandstone escarpment', a form found in all dialects.

Other disyllabic roots take just the first syllable as input, and employ Glottal-closed First-Syllable Reduplication (§3.6.2). It may be that such cases are historically compounds, of which the first element is reduplicated; in 5.182 both elements occur elsewhere (*barn-* is a prepound meaning 'up high' and *-go* is the dyadic suffix), though how this would then compose to give the tree name remains unclear.

5.182   *an-barn.go*   →   *mi-bah-barn.go*
        III-*grevillea.pterydofolia*   VEG.LOC-ZONE-*grevillea*
                                    'scrub with grevillea pterydifolia predominant'

If the root is monosyllabic, a disyllabic prefix of the form *CVhCV-* is formed by retriplication (§3.6.7):

5.183 a. *an-berl*   →   *an-behbe-berl*
           III-arm   III-ZONE-arm
           'tributary creek'   'area with many tributary creeks'

       b. *an-bouk*   →   *an-bohbo-bouk*
           III-seasonal.swamp   III-ZONE-seasonal.swamp
           'seasonal swamp'   'alluvial plains' (= I *man-boh-bo-bowk*)

       c. *an-djoh*   →   *an-djohdjo-djoh*
           III-acacia.sp.   III-ZONE-acacia.sp.
                              'wattle grove'
                              (= W *midjohdjodjoh* and E, I *midjohdjidjoh*
                              with irregular vowel assimilation in the
                              penultimate syllable)

       d. *an-berrk*   →   *an-behbe-berrk*
           III-dry.region   III-ZONE-dry.region
           '"desert", dry region'   'dry lowland scrub'

5.184   *gun-god*   →   *an-gohgo-god*
        IV-paperbark   III-ZONE-paperbark
                           'paperbark grove'

5.185   *gun-djelk*   →   *gu-djehdje-djelk*
         IV-gravel   LOC-ZONE-gravel
                                   'gravelly country'

5.3.3.2 PLENTY -wern

As an independent root, *-wern* is an adjective meaning 'much, many', but it can also appear after nominal roots, deriving adjectives with the meaning 'having much/many Ns'. Although words of the form N-*wern* probably originated as nominal compounds (§5.4), this suffix can now combine with any noun root, whereas compounds proper have strict limits on their first element. Examples are Dj *an-gurladj-wern* 'area with lots of swamprush' (< *an-gurladj* 'eleocharis dulcis, swamp rush') and *ga-wok-wern* [3-language-PLENTY] '(s)he is talkative' (14.59).

This suffix is frequent as an alternative to the special eco-zone construction discussed above; examples are W *man-labbarl-wern* [III-billabong-PLENTY] 'area with lots of billabongs' and Dj *an-djoh-wern* 'area with many wattle trees'.

5.3.3.3 -mirndewern 'rich in'

Formally this comprises *mirnde* 'many' plus *-wern* PLENTY. This combination can be used as a nominal predicate in its own right, glossed "rich" by informants (and in the Aboriginal English of the region "rich" typically means 'having a large family, having many descendants' rather than referring to material wealth):

5.186   *Nguni-mirnde-wern.*
Dj   2ua-many-PLENTY
         'You're "rich", you've got plenty of kids.'

In Gun-djeihmi the sequence can be combined with kin terms denoting offspring. An example based on the root *djedje* 'child through female line' is Dj *nguni-djedje-mirnde-wern*.

5.4 Nominal compounds

Nominal compounding in Bininj Gun-wok is both productive and regular. It also displays significant parallels with noun incorporation in terms of which roots can be involved as the first element, the ordering of elements, and the semantic interpretation of two of the main compounding types. Nominal compounds may involve two or more elements. Multi-root compounds are largely restricted to detailed anatomical terms:

5.187   *gun-garre-murrng-badjan*   *gun-garre-murrng-yau*
Dj   IV-calf-bone-mother   IV-calf-bone-child
         'femur'   'tibia'

Table 5.1: Types of nominal compound

Type of compound	Structure [X-Y]	Semantics	Parallel verbal construction
Restricted domain compounds	N-Adj (e.g. *rakmo-warre* 'lame, bad-hipped')	'having an X which is Y'; 'Y as far as one's X is concerned'	Incorporated body-part constructions with intransitive verbs
Whole-part compounds	CL-N-N where Y is a body part (e.g. *gun-denge-gurlah* 'sole of foot')	'The Y part of X'; 'Y, which is inalienably linked to X'	None
Modifying compounds	GENDER-N-Adj where the gender value is governed by the N (e.g. *an-dulk-rayek* 'hard wood')	'X which is Y'; '(a) Y X'	Generic noun incorporation with intransitive verbs
Mishap nicknames	N-N, where X is a body part and Y is a noun denoting an animal or weapon (e.g. *mad-djarrang* 'kicked in the ankle by a horse')	'person who suffered an injury to their X inflicted by Y'	None
Taste compounds	N-N, where X denotes the type of taste and Y means 'taste'	'(thing) smelling/ tasting like X'	Incorporation of nouns into non-verbal predicates meaning 'smell/stink'

Except for compounds involving body parts (§5.4.2), nominal compounds are built on a closed class of first elements, or 'compounding elements', which are typically noun roots stripped of their class prefixes. This set is identical to the set of incorporable nominals, and suppletive forms found with incorporated nouns reappear in nominal compounds (most notably W *gukku/kukku* 'water' and MM *kun-ronj* 'water', whose suppletive compounding forms are *bo-* and *korlh-* respectively). The full list of compounding elements is given in Table 8.1, but the examples in 5.188 will show the parallelism; all the nominal compounds cited here will be analysed further below.

5.188   Free (prefixed) form   in nominal compound   as incorporated nominal

	gun-dulk 'tree, wood'	Dj	*an-dulk-rayek* 'hard wood'	Dj	*ngarri-dulk-djobgeng* 'we chopped the tree'
	gun-madj 'swag'	Dj	*madj-mak* 'tidy'	Dj	*nga-madj-gurrmeng* 'I put down my swag'
	an-rud 'road'	Dj	*an-rud-gare* 'old road'	Dj	*ga-rud-yo* 'there is a road'
	gukku 'water'	Dj	*an-bo-mak* 'good water'	Dj	*ga-bo-yo* 'there is water'

Compounds fall into five classes on both structural and semantic grounds; the fifth is limited in productivity. Table 5.1 summarises these types, and gives parallels to compositionally analogous noun-incorporation constructions where these exist. Note that restrictive domain, mishap and taste compounds are exocentric, while whole–part and modifying compounds are endocentric.

5.4.1 Restricted domain compounds

These make a predication whose application is restricted to a part designated by the first element, which must be a body-part noun. The noun-class prefix or part suffix associated with the root is dropped (although use as a predicate may then result in the addition of a predicate prefix). The resultant structure is thus:

5.189   [N - Adj]_{Adj}

       X   Y

The meaning is 'having a Y X' or 'Y as far as one's X is concerned', which often translates into English as *Y-Xed*:

5.190   *rakmo-warre* (Dj)
hip-bad
'lame, bad-hipped'
(*gun-rakmo* 'hip')

dule-kelk (E:D)
language-soft
'having a 'soft' language variety'
(*dule-no* 'language')

mim-warre (Dj)
eye-bad
'short-sighted, having bad eyes'
(cf. *gun-mim* 'eye')

balem-gimuk (Dj)
fat-big
'having lots of fat'
(cf. *gun-balem* 'fat')

njam-gimuk (Dj)
guts-big
'fat, having big guts'

keb-dukkurr (E)
nose-short
'having a short nose' (*keb-no* 'nose')
(applied to estuarine crocodile)

kodj-rayek (I)
head-hard
'fuzzy-haired'

bid-mak (I)
hand-good
'dextrous'

kuk-yirrek (I)
body-smooth
'smooth-bodied'

darrkid-badjan (E:D)
body-big
'big, big-bodied'

Syntactically, compounds of this type are adjectives, although unlike most adjectives they do not usually take gender prefixes (5.191). They may take prefixes for subject person and number (5.192) and be suffixed for past tense if appropriate (5.193), but the third person minimal prefix *ga-/ka-* is not normally used.

5.191   *Bani-wok-buyiga.*
Dj   3ua-language-different
'They have a different language, they are different as far as their
language is concerned.'

5.192   *Yi-berd-kimuk!*
I   2-penis-big
'You've got a big prick!' (typical remark between joking partners)

5.193   *Ngaleng   wanjh   ø-kele-ni   Lumaluma   na-wu   ø-berd-kimuk-ni.*
W   she   then   3P-afraid-P   [name]   MA-REL   3P-penis-big-P
'She was afraid of (the monster) Luma-Luma, who had a big penis.' [KS 78]

There is a clear structural parallelism with verbs with incorporated body-part nouns (§10.4.2), such as *nga-mim-warreminj* [I-eye-bad.became] 'my eyes are no longer any good' or Dj *ba-bid-ngimeng* [(s)he-hand-entered] 'he put his hand in', lit. 'he entered as far as his hand is concerned'. Structurally, both are made up of a body-part noun followed by a predicate, which is an adjective in the case of the compound and a verb in the case of the incorporated noun construction. Semantically, in both cases the body-part noun gives the domain or part of the nominated entity to which the predication is restricted. Indeed, in the case of deverbal adjectives formed from verb roots by adding the past perfective suffix (§5.6.1.3), a form like E *(ø-)kuk-ngurlme-ng* [(3P)-body-black/be.black-PP] could be parsed as either a restricted domain compound 'black-bodied' or an intransitive verb with incorporated body part 'its body became black'.

A distinct subtype of the restricted-domain construction involves similative compounds in which the second element is a noun, but construed as meaning 'like an X' instead of 'X': Dj *molo-borndok* 'orange horseshoe bat' [tail-woomera] (i.e. 'like a woomera as far as its tail is concerned'), I *ngal-berd-djenj* [II-tail-fish] 'mermaid' (i.e. 'like a fish as far as her tail is concerned'), W *kodj-bulu* [head-old.person] 'white-haired' (i.e. 'like an old person as far as his/her head is concerned' and I *kodj-njalng* [head-yabby] 'having a head like a yabby', a term of reference used by a man about his sister.

5.4.2 Whole–part compounds

These are endocentric compounds, and have the meaning 'the Y part of X' (e.g. 'sole' is 'the skin part of the foot') or 'Y, which is only there because X is/was there' (e.g. 'footprint' is 'track, which is only there because (a) foot was there'. Note that by 'whole–part' I am including the range of inalienable semantic relations discussed in §10.4.2, which takes in representations (e.g. 'name'), manifestations (e.g. 'shadow') and natural signs (e.g. 'footprint'). They take the noun class appropriate to their head noun, the first element. Their structure, then, is:

5.194   [CL-N   -   N _{body part}]_N

               X   Y

Some examples are:

5.195   *gun-denge-bok*   *gun-dulk-berl*   *gun-denge-gurlah*
Dj   IV-foot-print   IV-tree-arm   IV-foot-skin
        'foot print'   'branch'   'sole of foot'

        gun-dulk-dad   *gun-bid-ngalanj*
        IV-tree-leg   IV-hand-nail
        'root'   'finger nail'

        gu-wardde-rurrk   *an-gole-bard*
        LOC-rock-cave   III-bamboo.shaft-knee
        'cave in rock'   'node of bamboo shaft'

The crucial role of the head noun in determining the noun-class prefix is not established by all the examples in 5.195, since in most cases both elements take the same noun-class prefix (e.g. *gun-denge* 'foot', *gun-bok* 'print, track', *gun-denge-bok* 'footprint'). In the case of *an-gole-bard*, however, 'bamboo' is *an-gole* while 'knee' is *gun-bard*. Further examples

demonstrating the importance of the head noun come from compound terms for genitals, in which the head noun takes the class III prefix (anomalously for body parts — see §5.5.2.4), whereas the part noun takes the class IV prefix. The compound in such cases always takes the class III prefix:

5.196   *man-day-djen*   *man-berd-kurlah*
W   III-head.of.penis-tongue   III-penis-skin
         'urethra' (cf. *kun-djen* 'tongue')   'foreskin' (cf. *kun-kurlah* 'skin')

In the eastern dialects, in which body-part nouns take the part suffix *-no* instead of a noun class prefix (§5.5.2.5), part–whole compounds have the form:

5.197   [N - N$_{<\text{body part}>}$ - *no*]$_N$
          X   Y   PART

Examples are:

5.198   *dedj-mad-no*   *bid-ngalanj-no*
E:N   butt-ankle-PRT   hand/finger-nail-PRT
         'root of tree' (cf. *mad-no*   'fingernail' (cf. *ngalanj-no*
          '(its) ankle')   '(his/her/its) nail', *bid-no* '(its) hand')

         bodme-murrng-no
         back-bone-PRT
         'backbone' (cf. *bodme-no*
          '(his/her/its) back')

Where the noun denoting the whole is neither a generic (e.g. *gun-dulk* 'tree') nor a bodypart noun (e.g. *gun-denge* 'foot'), it is not eligible for compounding, as mentioned above. In such cases the terms for whole and part will still be conjoined, in the same order as for whole-part compounds, but as morphologically separate words. In the eastern dialects the part noun bears the part suffix *-no* (5.199), but in the western dialects it does not (5.200):

5.199   *man-kalarr   dulk-no* (I)   *ngal-kordow   mim-no* (E)
         III-e.bleeseri   tree-PRT   II-emu   eye-PRT
         'trunk of *eucalyptus bleeseri*'   'red-flowered herbaceous bush'
                                               (flowers are said to resemble emu's eyes)

5.200   *gurdugadji   gun-denge*   *gunj   gurlba*
Dj   emu   IV-foot   kangaroo   blood
         '*hibiscus meraukensis*'   'plant sp. (*vitex glabrata*)'
         (leaves have emu-foot shape)

5.4.3 Modifying compounds

These have the meaning '(an) X which is Y' or '(a) Y X', and belong to the noun category. The semantic parallel to generic incorporation with intransitive verbs, as in W *dulk-mankang* '(the/a) tree fell', is clear: in both constructions, the second element supplies the predicate whose argument is the first element. Normally, however, verbs with incorporated generic nouns function as predicates, while noun-modifier compounds function as arguments (in addition to other regular functional differences between verbs and nouns).

Modifying compounds take a gender prefix, whose value is governed by the first element. The second element may be an adjective, but can also be numeral root such as *kudji* 'one' and certain types of social-category nouns like the patrimoiety names Duwa and Yirridjdja (e.g. *kun-bolk-duwa* 'Duwa country'). Eastern dialects, in which gender agreement has been lost, lack the gender prefix in this construction.

5.201   [(GEN-)   N   -   Mod]$_N$

          X   Y

In all dialects, modifying compounds are the preferred method of applying adjectives to nouns capable of compounding or incorporation, and in some dialects (for example, Kuninjku) this is the only way of modifying such nouns. Compare the behaviour of the noun *an-gayawal* 'long diascorea transversa yam', which cannot be compounded, with the noun *gun-dulk* 'tree', which can: modification of the first results in the phrasal two-word Mayali combination *an-gayawal ngan-guyeng-guyeng* [III-*diascorea transversa* VE-big-big] 'long *diascorea* yam', while modification of the second is expressed by the compound *an-dulk-guyeng* 'tall tree' in Gun-djeihmi and by the structurally parallel *man-dulk-kuyeng* [VE-tree-long] in Kunwinjku and Kuninjku.

In Kune gender agreement is restricted to occasional use of the masculine prefix and a more productive means of marking modifiers is to use the part suffix, as in *bininj dukkurrh-no* [man short-PART] 'short man'. Modifying compounds simply join the noun and adjective, with no part suffix, as in *yarl-dukkurrh* [string-short] 'short string'. The fact that most compounding roots are either inanimate generics, or body parts, skews the semantic distribution of this construction, since modification of animate nouns, and of specific inanimates (e.g. tree names) will instead be carried out by the non-compounding construction.

Because of the formal identity of gender and noun-class prefixes (see §5.5), it is not immediately obvious that gender prefixes are involved here, as opposed to the noun-class prefixes used in whole–part compounds. Evidence that they are in fact gender rather than noun prefixes comes from the fact that they select their prefix on the basis of gender rather than noun-class rules in cases where there is disagreement between the two. For example the words for 'tree' and 'flame' both take *kun-* noun-class prefixes (e.g. Dj *gun-dulk* 'tree, wood', W *kun-birli* 'flame') but govern agreement with the vegetable prefix *(m)an-* (see §5.5.3.1). Modifying compounds based on these roots are Dj *an-dulk-rayek* 'hard wood' and W *man-birli-kimuk* 'big flame'. On the other hand, where the noun governs neuter agreement, as in the case of most body parts and landscape features, the compound will take the neuter prefix *kun-*, as in *kun-mok-kare* [NEU-sore-old] 'old sore', *kun-bid-kudji* [NEU-hand-one] 'five', *kun-bid-bokenh* [NEU-hand-two] 'ten', and with 'water' viewed as a landscape feature in:

5.202   *Kun-ekke   kukku   kun-bo-kimuk.*
W   NEU-DEM   water   NEU-water-big
     'That water's big.' [KH 19]

Analysing the prefixes as gender also allows a unified account of gender agreement in nominal modification, whether it is realised by separate words or compounds. Some further examples of modifying compounds in the dialects using gender agreement are in 5.203, and from dialects without gender agreement, in 5.204.

5.203   *an-dalk-bang* (Dj)   *an-dulk-gohbanj* (Dj)
          VE-grass-cheeky   VE-tree-old
          'cheeky (i.e. spiky) grass' (cf. *gun-dalk* 'grass')   'full-grown tree'

          an-boi-gilelh (Dj)   *an-dalk-mirrh-mak* (Dj)
          VE-cooking.stone-soft   VE-grass-sharp-very
          'antbed used in ground oven'   'sharp grass'
          (lit. 'cooking-stone which is soft';
            cf. *gun-boi* 'cooking stone')

          man-ngorl-kimuk (W)[3]   *an-dedj-barng* (MM)
          VE-cloud-big   VE-base-cheeky
          'big clouds' (cf. *kun-ngorl* 'cloud')   'wild grape' (lexicalised)

5.204   *dule-djurrkdjurrk* (E:D)   *djalh-badjan* (E:D)
          speech-fast   leaf-thick
          'quick language'   'thick leaf'

Although predicative compounds occasionally co-occur with a noun identical in reference to their root, particularly when a demonstrative is also present (e.g. 5.202, 5.205), it is more typical for them to be the sole word in their phrase, as in 5.206 and 5.207.

5.205   *An-jarrman   go-no   go-ngerrmey.*
MM   III-kurrajong   flower-PRT   flower-red
          'Kurrajong trees have red flowers.'

5.206   *Man-wodj-kare   kani-dorrorrke.*
I   VE-log-old   12ua-dragNP
          'Let's drag the hollow log.'

5.207   *Bolkkime   karri-re   kaddum   karri-yo   kun-kak-djarrkno.*
E:N   now   12a-goNP   up.high   12a-sleepNP   NEU-night-two
          'Let's go into the high country now, and camp there for two nights.'

They are also frequently used as a way of modifying incorporated nominals sharing the same root:

5.208   *Na-marrgon   an-djal-dulk-gudji   ga-rrulk-do-ng.*
Dj   I-lightning   VE-only-tree-one   3-tree-strike-NP
          'Lightning always strikes just that one tree.'

5.209   *Na-behrne djabbilarna ga-bo-garrme   an-bo-gimuk.*
Dj   MA-that   billycan   3-liquid-haveNP VE-liquid-big
          'That billycan has lots of water.'

COMPLEX MODIFIERS As well as monomorphemic adjectives or numerals, the second element in modifying compounds may comprise a derived property expression formed by adding the PRIVative or PLENTY suffixes to a noun root:

5.210   *gun-bolk-djidning-yak*
Dj   NEU-place-laterite-PRIV
          'place with no laterite'

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[3]   Though note that the form *kun-ngorl-kimuk* is also attested (KS 196).

5.211   *gun-bolk-djidning-wern*
Dj   NEU-place-laterite-PLENTY
     'place with lots of laterite'

Note that the above examples are exceptional, within the Gun-djeihmi dialect, in taking a neuter prefix. As will be discussed in §5.5, this dialect retains *gun-* as a noun-class prefix but has lost neuter gender agreement, replacing it with generalised vegetable agreement. The above examples may represent archaic formations from a period when neuter agreement was still possible; in Kunwinjku the head noun *kun-bolk* 'place' still governs neuter agreement when used to discuss landscape features.

-buyiga/-biyika/-biya 'OTHER' IN MODIFIER COMPOUNDS There are two ways of translating English 'another': the adjective *-buyiga/-biya* (Dj), *-buyika/-biyika* (I, E) and the verbal prefix *yawoyh-* (§11.3.5.1). The adjective can have both meanings of English 'another' — 'another (token of the same type)' and 'another, a different one, one of the wrong type' — whereas the verbal prefix can only have the first meaning (in addition to covering other types of event repetition). The forms *-buyiga*, *-biyika* and *-biya* appear to be merely phonological variants.

Like other modifiers in this construction, this root appears as a separate word when modifying words whose roots are not compounding elements, such as *narangem* 'male' in 5.212 and *daluk* 'woman' in 11.131d. It may also be used as a head noun, particularly with the third person augmented prefix, with the meaning 'others' (5.213). When modifying a word whose root is a compounding element, however, it generally appears in a modifying compound (5.214, 5.215).

5.212   *Ngal-dah-daluk,*   *na-rangem*   *na-buyika*   *nani*   *wanjh*
I   FE-REDUP-female   MA-male   MA-different MA.DEM then

     konem-kuyeng *nungka.*
     tallness-long   he
     'That's a female, the male is different; he has a long neck.'

5.213   *Birri-buyika*   *minj* *balemane* *birri-bebme-ninj,* *bonj* *birri-ru-y*
I   3a-other   NEG   where   3aP-emerge-IRR   right   3aP-burn-PP

     birri-dowe-ng   *birri-dukka-rrukka-rr-inj.*
     3aP-die-PP   3aP-REDUP-tie-RR-PP
     'Some of the others had no where to get away, and so in the end were burned, writhing to death.'

5.214   *Ngad* *wurdyau* *ba-rrowe-ng* *gu-djeuk-biya.*
Dj   we   child   3P-die-PP   LOC-rain-other
     'Our child died last year.'

5.215   *"Ladjkurrungu*   *la*   *yi-re,*   *konda* *ngal-yabok-warre*   *ngane-yo."*
I   (address.term)   CONJ 2-goNP here   II-sister-RESP   1ua-sleepNP

     "Oh,   *ku-mekke* *nuk*   *ku-bolk-buyika* *nga-h-yo."*
            LOC-DEM   DUB   LOC-place-other 1-IMM-lieNP
     '"Ladjkurrungu you go, I'm sleeping here with your sister."'
     '"Oh, I'll go and sleep somewhere else then."' [GID]

The set of roots with which *-buyiga* and its variants can form modifying compounds is slightly larger than that found with other modifiers, taking in a number of time nominals that do not normally incorporate, such as 'tomorrow' and 'yesterday' (5.216) as well as *dird* 'month' (11.131d). The only attestations of these as anything like incorporated or compounded nouns is in the collocations *malayi-barrhbun* (Dj) 'day break, day dawn' and *dird-kan* (W) 'hunt by moonlight', in both of which they are arguably lexicalised rather than productive incorporating elements. The extended set of combinatorial possibilities for *-buyiga* suggests it is on its way to being grammaticalised as a suffix rather than a simple compounding element.

5.216	*malayi-buyiga*		*wolewoleh-buyigah-ni*
Dj	tomorrow-another		yesterday-other-P
	'the day after tomorrow'		'the day before yesterday'

5.4.4 Mishap nicknames

Nicknames identifying people by a mishap that has befallen them have the form X-Y, where X denotes the body part affected by the mishap, and Y the source of the mishap. As Mick Alderson explained this practice, 'whatever you get hit by, you get a nickname'. Examples of such nicknames:

5.217 *ngorrk-madjawarr*
Dj   flank-goose.spear
     'hit in the flank by a goose spear'

5.218 *mad-djarrang*
Dj   ankle-horse
     'kicked in the ankle by a horse'

5.219 *garre-ginga*
Dj   calf-crocodile
     'bitten on the calf by a crocodile'

5.220 *denge-wamba*
I   foot-shark
     'bitten on the foot by a shark'

5.4.5 Taste compounds

The order expected in taste/smell compounds, by analogy with other modifying compounds (§5.4.3), is exemplified by forms such as *man-manj-mak* [III-taste-good] 'delicious' and *na-manj-warre* [I-taste-bad] 'saltwater crocodile', said to taste foul. Often the two-part element *manj-warre* [taste-bad] is further compounded after the tasted entity, as in *an-bo-manj-warre* 'stagnant water' and *guk-manj-warre* [body-taste-bad] 'filthy, disgusting to taste' (said of black bats in contradistinction to fruit bats).

However, a second and unexpected order is found in a handful of other taste/smell compounds. These unexpectedly have the second element as head, preceded by a modifier giving the type of smell (e.g. *an-nguk-manj* [III-shit-taste, i.e. tasting like shit] 'cheese fruit *morinda citrifolia*'). What appears to be this order is found in many names for plants and

fishes which have *manj* as a second element, without the first element being analyseable: Dj *an-garralarlhmanj* 'wild cashew', *durnbuhmanj* 'bream', *an-djarrmanj* 'brachychiton sp.'. The name for the olive python exhibits both orders, but in different dialects: Dj *al-ngururrkmanj* but W *manjdjur(d)urrk*.

It is possible this aberrant ordering results from the effects of structural analogy on nominal compounds, taking nominal predicates in which *banj* 'smell' incorporates a nominal root designating the source of the smell (e.g. *ga-nguy-banj* [3-flower-smell] 'it smells of flowers', *ga-nud-banj* [3-pus-smell] 'it smells rotten', *ka-bolk-dile-banj* [3-place-piss-smell] 'the place smells of piss' or *yi-kord-banj* [2-shit-smell] 'you smell of shit or farts'). Unlike the examples with *-manj*, which take nominal morphology in the form of noun-class prefixes, the *banj* constructions clearly take predicate morphology, viz. pronominal prefixes, and the order [incorporated noun - predicate] is normal for a predicate. It seems possible that analogy mediated by the close semantic link between 'taste' and 'smell' has then led to the order in nominal predicates with *-banj* influencing that in nominal compounds with *-manj*.

5.5 Gender and noun classes

5.5.1 Preliminaries[4]

In most dialects, nouns fall into one of five categories on the basis of the prefixes they normally take, including a fifth unprefixed category. These 'noun-class prefixes' are glossed with Roman numerals (except that the fifth, zero class will not normally be overtly glossed), and correlate well across dialects, except for the fact that Class III has the form *(ng)an-* in the Mayali dialects against *man-* in the other dialects, and that the initial *ng* optionally drops from Class II in the Mayali dialects. A representative set of five nouns across three sample dialects is shown in Table 5.2.

Table 5.2: Forms of noun classes across three representative dialects

Dialect	I	II	III	IV	V
	'boy; male'	'old woman'	'(VE) food'	'rock'	'person'
Dj	*na-rangem*	*(ng)al-gohbanj*	*(ng)an-me*	*gun-wardde*	*bininj*
W	*na-rangem*	*ngal-kohbanj*	*man-me*	*kun-wardde*	*bininj*
E	*na-rangem*	*ngal-kohbanj*	*man-me*	*kun-wardde*	*bininj*

The only significant departure from this system is found in the eastern dialects, particularly Kune and Manyallaluk Mayali, where the suffix *-no* has been extended from its original function of marking third person minimal possessors (§5.3.1.1) to become a sixth class designating part nouns. Many part nouns which in other dialects belong to classes III-V have been recruited to this class, losing their prefix in favour of the part suffix; compare Dj *gun-mim*, W *kun-mim*, E *mim-no* 'eye' and Dj *an-mim*, W *man-mim*, E *mim-no* 'fruit'. This development is discussed in §5.5.2.2. The locative prefix *gu-/ku-*, and its virtually fossilised vegetable locative counterpart *mi-*, occupy the same slot as the noun-class prefixes, but are

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4   The account given here supersedes an earlier version, published as Evans (1997a). I am grateful to Grev Corbett and Dunstan Brown for probing discussions of gender and noun class that sharpened this analysis.

best considered as locative versions of the Class III and IV prefixes, though the issue is complex — see §5.2.2.1.

Congruent with the system of noun classes, in terms of both the form of the prefixes used and the majority of semantic principles determining category membership, is a system of gender agreement marked on modifiers such as adjectives and demonstratives, and maximally distinguishing four genders on the common Australian pattern of masculine, feminine, vegetable and neuter. Unlike the noun-class system, however, the system of gender agreement shows significant differences across dialects. Kunwinjku, which has the maximal system, has four genders corresponding in form to the first four noun classes. Nouns of the fifth (zero) noun class can belong to any of the four genders, though with a preference for them to belong to one of the two animate genders (masculine and feminine). The Mayali dialects have reduced this system to three by neutralising the neuter vs vegetable distinction in favour of the vegetable gender. This tendency to get rid of the neuter gender can also be perceived at work among Kuninjku speakers and younger speakers of Kunwinjku. Most dramatically, the eastern dialects have effectively lost the gender system altogether by generalising masculine agreement across the board.[5] Table 5.3 illustrates this situation for the same three dialects exemplified above.

Table 5.3: Typical gender/noun class correlations in three dialects

	Congruent examples (at least in Kunwinjku)	Examples of unprefixed nouns with parallel semantics
Masculine	'good boy (I)'	'good man (V)'
Kunwinjku	*na-rangem na-mak*	*bininj na-mak*
Gun-djeihmi	*na-rangem na-mak*	*bininj na-mak*
Kune	*na-rangem na-mak*	*bininj na-mak*
Feminine (W, Dj only)	'good old.woman (II)'	'good woman (V)'
Kunwinjku	*ngal-kohbanj ngal-mak*	*daluk ngal-mak*
Gun-djeihmi	*al-gohbanj al-mak*	*daluk al-mak*
Kune	*ngal-kohbanj na-mak*	*daluk na-mak*
Vegetable (W, Dj only)	'good food (III)'	'good cheeky.yam (V)'
Kunwinjku	*man-me man-mak*	*kamarn man-mak*
Gun-djeihmi	*an-me an-mak*	*gamarn an-mak*
Kune	*man-me na-mak*	*kamarn na-mak*
Neuter (W only)	'good rock (IV)'	'good water (V)'
Kunwinjku	*kun-wardde kun-mak*	*kukku kun-mak*
Gun-djeihmi	*gun-wardde an-mak*	*gukku an-mak*
Kune	*kun-wardde na-mak*	*(kun-ronj na-mak)*

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5   However, there are occasional uses of feminine agreement (e.g. *ngalkudji daluk* for 'one woman' in Text 8.9). Note also that the *na-* prefix, though no longer contrastive, is still dropped when the adjective is followed by a verbalising suffix (e.g. *nabadjan* 'big' but *badjanminj* 'got big').

The cross-dialectal difference in the behaviour of noun-class and gender systems underscores the need to treat them as separate phenomena,[6] but even within any one dialect there are several reasons to do this.

Firstly, they reflect a general theoretical distinction between inflectional and derivational morphology: gender is an obligatory, governed agreement category found on modifiers like *-mak* 'good' or *-mekke* 'that', while noun class is simply part of each noun lexeme.[7]

Secondly, the two systems are logically independent, even though there is a large measure of congruence between them. (We can now define the term congruence so that it applies to the situation exemplified by *manme* and *ngalkohbanj*, in which a noun has a gender of the same form as its (non-zero) class prefix.) A large proportion of animate nouns, and some inanimate nouns, have no overt class prefix (hence belonging to Class V, the 'zero class'); zero class nouns, nonetheless, belong to one of the four genders, as shown by the behaviour of their modifiers in the right-hand side of Table 5.3. In addition, partially distinct semantic principles govern the assignment of nouns to genders and to noun classes (in Kunwinjku, life-form plant names will go into the *kun-* class but the vegetable (*man-*) gender), and individual lexemes sometimes govern 'quirky' agreement (e.g. *man-djewk* (W), *an-djeuk* (Dj) 'rain, rainwater', which always governs masculine agreement). As a result there are a significant number of lexemes where noun class and gender are non-congruent.

There is another important difference from the speaker's point of view: since nouns will always be heard with the noun-class attached (leaving aside cases of incorporation) the speaker does not have to learn any principles for class membership, but merely learn the phonological form of the word. Noun class, in other words, is an overt category. Gender, on the other hand, is a covert category, since there may be no clue in the form of the word itself to the gender membership, so that semantic principles (where they exist) are a useful aid. The learning of this covert category (whether by native speaker or linguist) is further complicated by the fact that gender agreement is neutralised in favour of the masculine in a range of situations, such as with plurals and certain demonstratives; these will be discussed in §5.5.4.

The existence of two partly linked subsystems means that there are two potential points of contrast within which semantic differences can be signalled. The lexicalisation of metaphorical resemblances, for example, may be shown either by substitution of one noun-class prefix for another, or the use of different gender agreement with the same noun form. An example of the first strategy is the use of Class III prefixes for the plant analogues of human body-parts which take class IV (e.g. Dj *gun-godj* 'head (of person, animal)', *an-godj* 'head of tuber'; *gun-dad* 'leg', *an-dad* 'root'). An example of the second is the use of masculine agreement with the primary meaning of *birndu*, namely 'mosquito', but feminine agreement with its second meaning 'glossy ibis'; the metaphorical extension from 'mosquito' to 'glossy ibis' presumably draws on the prominent beak/proboscis in both. In general the

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6   Earlier grammarians of Kunwinjku (e.g. Oates 1964; Carroll 1976) subsumed both under the same label, as 'noun classes', presumably because of the formal and semantic overlap between the two, and indeed most descriptions of northern Australian languages until the late 1980s did not make the distinction in any systematic way.

7   This creates a glossing problem, since a gloss like 'ironwood tree' really belongs to the two-part sequence *man-dubang* rather than just to the root *-dubang*, whereas with an adjective like *man-kimuk* 'big (VE)' the gloss 'good' belongs only to the root. Despite this I adhere in my glossing to the fiction of glossing the root separately, if only because there are many reasons for mentioning the prefix as a separate entity.

noun-class system is more rigid and lexicalised, leaving little room for creativity and the encoding of contextual effects, whereas the gender system allows considerable scope for speakers to bend gender choice to encode subtleties of construal and context, though always within the general semantic principles to be outlined below. To give an example, the zero-class noun *delek* 'white clay' can take a masculine modifier in the context of discussing its use in painting (a semantic domain associated with masculine gender agreement), but a vegetable modifier in the context of discussing how it is eaten as a cure for diarrhoea, since vegetable agreement is associated with non-meat foods.

Because of the large degree of overlap in the semantic content of the noun-class and gender systems, it is tempting to treat one of these as primary, either deriving gender membership from noun class, or the reverse:

5.221   semantics   →   noun class   →   gender
         semantics   →   gender   →   noun class

Neither of these alternatives is adequate, however. The first alternative is clearly problematic, most obviously because of the many nouns in Class V (the unprefixed class), whose gender cannot be predicted from their noun-class membership, since nouns in Class V can be of any gender. Consider the Kunwinjku words *benuk* 'plains turkey' which is masculine, *ngarrbek* 'echidna' which is feminine, *karrbarda* 'hairy yam' which is vegetable, and *kuk* 'body' which is neuter.

Predicting noun class from gender works a little better but is still inadequate. For instance, plant terms will all take vegetable gender, whether they are specific terms or names of life forms, yet the former will belong to Class III while the latter belong to Class IV; compare Y *man-bernbern* 'ghost gum' and *man-dubang* 'ironwood' on the one hand with *kun-dulk* 'tree' and *kun-dalk* 'grass' on the other.

As these examples show, we cannot always predict gender from noun class, or noun class from gender. Rather, there is a body of semantic principles, with a great deal of overlap, but some assignment rules specific to each. For a formal implementation of this conception within Network Morphology, see Evans, Brown and Corbett (2002).

While the complexity and nature of the rules for noun-class membership are relatively stable across dialects (except for the addition of a part class in eastern dialects), the rules for gender assignment undergo successive simplification as one moves away from the maximally differentiated Kunwinjku system. For this reason we begin our exposition by working through the rules for noun-class membership (§5.5.2), then pass to those determining gender agreement (§5.5.3); at the end of that section we review the degree to which the two are congruent. In §5.5.4 we pass to several classes of situation where the expected pattern of agreement does not obtain, as a result of 'outside' factors (i.e. other than the lexical item itself), such as plural contexts, the nature of the modifier, and biological determination of gender with sex differentiables.

5.5.2 Noun class

The structure of this section is as follows. I firstly sketch the overall semantic principles determining noun-class membership (§5.5.2.1), appealing to examples of cross-classification (where the same root combines with different prefixes) to sharpen the contrast (§5.5.2.2). Then I mention some problematic cases where the lack of cross-classification makes it hard

to tell whether an initial sequence is actually a prefix (§5.5.2.3). We then pass to a detailed consideration of the lexemes in each of the five classes found right across the dialect chain (§5.5.2.4), and finally in the suffixed 'part class' in the eastern dialect (§5.5.2.5).

5.5.2.1 Overall semantic principles

Studies of noun-class systems (e.g. Dixon 1972; Schmidt 1985; Lakoff 1987) have shown that their semantic patterning results from the clustering, around a set of initial members, of other items linked to the founding members by such principles as metaphorical, metonymic or synecdochic connections, or placed in a different class to a founding member because of a principle of opposition such as anomaly within its class or different domain for the application of a metaphor of similarity.

Table 5.4: Main semantic groupings in the five noun classes

I	II
Some male higher animates	Some female higher animates
Some lower animates	Some lower animates
Some types of honey	Sun (some varieties), rainbow serpent and some meteorological terms
III	**IV**
Plants and their products	Most parts of animals and plants
Sexual and excretory body parts	*Life form terms for plants*
Song, ceremony and custom	*Some objects made from plants*
Fire (bushfires)	Some parts of the landscape
Food, vegetable and otherwise	*Fire (domestic fires)*
Some types of honey	Weather and sea
Landscape features with *water or* plant associations	Time measures
	Languages and speech
	Country; place-based social categories
V	
Animates	
Implements not made from plants	
[Otherwise no specific semantic content; compatible with every semantic category]	

In the Bininj Gun-wok system, the founding elements for each class are as follows: males for I, females for II, plants for III and body parts (or abstracts) for IV. Class V is a residue class, though strongly associated with animacy. Table 5.4 elaborates this by spelling out the main groups of entities found in each class; where categories are given in italics they reflect groupings that are not relevant to the system of gender discussed in §5.5.3. Comments on the motivation for the clusterings will be given as the membership is discussed in detail, though obviously the interpretation of the semantic motivations is of a lower order of certainty than the empirical fact of class membership.

5.5.2.2 Cross-classification

Many noun roots combine in a semantically predictable way with two or more prefixes. Some initial examples, illustrating the general association of I with masculine, II with feminine, III with plant and IV with body parts, physical states, behaviours, and abstracts, are the following:

5.222 Dj	*na-gohbanj*	'old man'	*na-goigoi*	'promiscuous man, male larrikin'
	al-gohbanj	'old woman'	*al-goigoi*	'promiscuous woman, female larrikin'
	an-gohbanj	'old tree'	*gun-goigoi*	'adultery, promiscuous behaviour'
	na-ngordo	'male leper, cripple'		
	al-ngordo	'female leper, cripple'		
	gun-ngordo	'leprosy'		

Terms for matrimoieties (§1.4.2.1), and the subsection terms from the western system (§1.4.2.2), have paired class I and II forms (e.g. W *na-bulanj* 'man in *bulanj* subsection', *ngal-bulanj* 'woman in *bulanj* subsection', *na-/ngal-mardku* 'man/woman of *mardku* matrimoiety').

In the case of terms for clans, the I and II prefixed forms denote male and female clan members respectively; in addition, the I-prefixed form may be used to refer to a plurality of clan members, typically taking in the whole clan. Class IV-prefixed forms can be used to refer to the clan territory, and, obliquely, to make metonymic reference to a member of that clan in cases (such as following the clan member's death) where it would be impolite to make direct reference to the person:

5.223 Dj	*Na-Badmardi*	1. 'male member of Badmardi clan'
		2. 'the Badmardi mob'
	Al-Badmardi	· 'female member of Badmardi clan'
	Gun-Badmardi	1. 'Badmardi clan territory'
		2. (speaking obliquely) 'member of Badmardi clan'

Language and clan names take the *kun-* prefix. In Gun-djeihmi individual speakers regardless of sex, or groups of speakers, may be referred to by the *na*-prefixed form; in Kunwinjku the feminine prefix is used to name female clan members, and either the *na*-prefix, or the pronominal dual or plural prefix, to name groups of clan members or language speakers.

5.224 Dj	*Gun-djeihmi*	'Gun-djeihmi language'	*Na-djeihmi*	'Gun-djeihmi people'
	Gun-djawonj	'Jawoyn language'	*Na-djawonj*	'Jawoyn people'
	Gun-winjgu	'Kunwinjku language'	*Na-winjku*	'Kunwinjku people'
W	*Na-marrirn*	'male of Marrirn clan'	*Ngal-marrirn*	'female of Marrirn clan'
	Birri-marrirn	'they (people) of Marrirn clan'		

Where the root refers to a language rather than a clan, it is unusual to refer to individual speakers using a noun-class prefix. In both Gun-djeihmi and Kunwinjku dialects, *gun-dangbon* means 'Dangbon language' (there is no Dangbon clan), and the masculine form *na-rrangbon* would typically refer to 'the Dangbon-speaking people' rather than 'male Dangbon speaker'. In the eastern dialects the third person augmented prefix *birri-* may be used in such plural situations (e.g. Kuninjku *birri-rinjku* 'Kunwinjku-speaking people'); see §5.3.2.

There are also many pairs in which the class IV form denotes a human or animal body part, and the class III form a parallel part of a plant (including honey) or of the landscape:

5.225 Dj	*gun-godj*	'head'	*an-godj*	'head of tuber; gorge, "pocket"'
	gun-dad	'leg'	*an-dad*	'root'
	gun-garre	'calf, lower leg'	*an-garre*	'"string" of hairy yam'
	gun-berl	'arm, wing'	*an-berl*	'branch; tributary stream'
	gun-njam	'guts, intestines'	*an-njam*	'honeycomb, "bee-bread"'

In several pairs the vegetable prefix signals a genital body part that is a metaphorical extension from some other body part; the association between vegetable prefix and genitalia is extensive (see below):

5.226 Dj	*gun-berd*	'tail'	*an-berd*	'penis'
W	*kun-berl*	'arm'	*man-berl*	'middle part of lower penis, removed during subincision' (see Berndt 1951)
	kun-korn	'testicle'	*man-korn*	'vagina'

In addition to the regular alternations in noun-class prefix described above, there are more idiosyncratic alternations. Some nouns have no prefix in their most basic sense, but take a prefix in specialised senses:

5.227 Dj	*yabok*	'sister'	*al-yabok*	'my child, your sister' (Gun-dembui)
	dabu	'egg'	*an-dabu*	'bee eggs'
	gung	'floodwater'	*an-gung*	'honey'[8]

In other cases the relation between unprefixed and prefixed nouns is metonymic or metaphorical:

5.228 Dj	*djak*	'meat ant'	*gun-djak*	'pain, fever' (meat ants cause pain)
	mok	'bush fly'	*gun-mok*	'sore' (bush flies cluster on sores)
	madj	'octopus'[9]	*gun-madj*	'swag, possessions' (that one wraps up as an octopus wraps its victim?)

There are also examples where the most basic senses are prefixed, and secondary senses have no prefix:

5.229 Dj	*gun-mim*	'eye'	*gun-djamun*	'ceremonial discipline'
	an-mim	'seed, fruit'	*an-djamun*	'tabooed food; private parts'
	mim	'breathing hole of animal that buries itself in sand (e.g. turtle')'	*djamun*	'policeman'

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[8] Comparative evidence, such as Gidabal *gung* 'water', suggests an original meaning 'liquid, water' from which the honey meaning would have been a semantic specialisation — liquid food. Alternatively, the 'honey' meaning may have been generalised from an original meaning of 'liquid part of sugarbag'. Another pair of putative cognates spanning this semantic range is Nunggubuyu *gu:gu* 'fresh water' (with numerous other words of form *gugu* or *gug:u* meaning 'water', including Gun-djeihmi *gukku* 'water') and Yolngu-Matha *guku* 'honey (especially without wax)' (Zorc 1986:135).

[9] Comparative evidence in this case suggests the 'octopus' meaning is prior — in Iwaidja and Maung the word *maj* means 'octopus' but there is no cross-classed form meaning 'swag'.

5.230 I   *kun-djurlng*   'dust'

        djurlng   'bones of ancestors located in rock ledges'

Before concluding this section, it should be noted that by no means all semantic extensions are accompanied by a change in noun class. Particularly in the case of 'sign metonymies' (Evans 1997d), in which a term for one species is extended to another with which it is found in a predictable spatial or temporal association, the morphological class marker tends to remain unchanged (e.g. *ngal-yurr* 'Leichhardt's grasshopper; herb sp. eaten by Leichhardt's grasshopper', *man-yawok* 'cheeky yam; grasshopper sp. [katydid] that calls out at the time when one should gather cheeky yams'). In such cases it appears that the noun-class marker is motivated by the etymologically original meaning. For example, there is dialectal evidence that the 'yam' meaning is original to *man-yawok*, which would motivate the *man*-prefix; the extension to 'grasshopper' is only found in one dialect, while the 'yam' meaning is more widespread.

5.5.2.3 Problems of prefix absorption

Where there is cross-classification, the existence of contrast sets makes it clear we are dealing with a morphologically segmentable prefix. However, there are many nouns lacking such contrast sets, and it is not always clear that we are dealing with a synchronically segmentable prefix rather than either a root-initial sequence homophonous with some prefix, or a frozen prefix no longer analysed as a morpheme by speakers. Consider the words *nayin*, *nabarlek* 'little rock wallaby' and *gunak* 'fire' in Gun-djeihmi. Since the roots of these words do not occur elsewhere; what evidence is there that we are dealing with prefixes *na-*, *na-* and *gun-* respectively? In this section I outline the range of possible tests; however, since each test is limited in application, there remain cases where the question is not decidable.

INCORPORATION Incorporated nouns drop the noun-class prefix (5.231a,b). This can be used to identify prefixes, even when (as in the case of *an-yiuk*) the root does not combine with other prefixes.

5.231 a. *Nga-yi-rrurnde-ng an-yiuk.*   b.   *Nga-yiuk-yi-rrurnde-ng.*
Dj   1/3-COM-return-NP   III-honey   1/3-honey-COM-return-NP
          'I'll bring back honey.'   'I'll bring back honey.'

This test is useful in identifying cases where a prefix has been absorbed historically. In Gun-djeihmi, for example, the word *gunak* fails to drop the *gun-* prefix under incorporation:

5.232   *Gan-gunak-wo-ø!*
Dj   2/1-fire-give-IMP
          'Give me a light!'

Synchronically, then, *gunak* is a single morpheme in the Gun-djeihmi dialect. Diachronically, however, there is evidence that it derives from an original IV-prefixed form *gun-rak*, where *rak* is a root meaning 'wood, fire'. In more easterly dialects the form is actually *kun-rak*, and the root is incorporable, as in I *ka-rak-mang* [3-firewood-getNP] '(s)he is getting firewood', which corresponds to Dj *ga-yerrng-mang* (Dj *gun-yerrng* 'firewood'). The absorption of the *gun-* prefix in Gun-djeihmi was probably connected with an irregular cluster simplification (**gun-rak > gunak*) that left the original root with a phonotactically unacceptable vowel-initial structure.

The incorporation test cannot be applied to all nouns because only some can incorporate; most nouns referring to animates, and most non-generic inanimates (except body parts) cannot incorporate (§8.1.3).

STRESS PLACEMENT As we saw in §2.5 the rules for stress placement are complex, but basically stress will fall on root-initial syllables if they are non-final. In the case of *nabarlek*, this should give the pronunciation [nabá[ɛk] if *na-* is a prefix. However, it is in fact pronounced [nábaɭɛk], suggesting that we are dealing either with an old prefix that has been absorbed into the root, or with a single morpheme that just happens to begin with *na-*.

This test cannot be applied to words like *nayin* or *gunak* since the fact that the putative root is the final syllable debars it from receiving stress.

CROSS-DIALECTAL EVIDENCE I have already appealed to this in the case of *gunak*. Another example is *nayin*, for which no decisive test can be applied within the Gun-djeihmi dialect. However, there is a sound correspondence between syllable-inital *y* in Gun-djeihmi and syllable-initial *r* in Kuninjku before non-back vowels (i, e, a), with the further conditioning factor that the segments must be morpheme initial. Examples are Dj *-yawoih-* I *-rawoih-* 'again', Dj *gun-yerrng* I *kun-rerrng* 'firewood', and Dj *gun-yid* and I *kun-rid* 'trouble, fight'; contrast this with the form for 'meaning, thought, whose root is *mayali* in both dialects, and not **marali* in Kuninjku, because the *r/y* segment is not morpheme-initial. Now the I word for 'snake' is *narin*; the existence of a *y:r* correspondence suggests that historically the Gun-djeihmi word *na-yin* involves a masculine noun-class prefix. This is simply an etymological argument, however, and cannot tell us whether *nayin* is synchronically one morpheme or two for Gun-djeihmi speakers.

5.5.2.4 Semantics of noun-class membership

We now pass to a more detailed consideration of the distribution of the five classes across semantic types of noun. For simplicity of exposition, forms will be from the Gun-djeihmi dialect unless otherwise mentioned, but the facts are parallel across dialects. On noun-class membership in compounds see §5.4.

I CLASS

(a) A few nouns denoting male humans, such as *na-rangem* 'boy, male', *na-gohbanj* 'old man', *na-godjek* 'man who has eloped', *na-goigoi* 'promiscuous man', *na-weleng* 'man responsible for killing game, e.g. kangaroo'. We may also include here the *na-*prefixed moiety, subsection, clan and language names discussed above.

(b) The names of powerful spirit beings, mostly associated with the sky, such as *na-marnde* 'spirit, mimi spirit', *na-marrkkan* 'bogey man', *na-marrgon* 'lightning', *na-morden* 'lightning' (E), *na-mondjok* 'man-like sky spirit; black part of sky during cold season', *na-morrorddo* 'shooting star, embodiment of death spirit', *na-bulwinjbulwinj* 'dangerous spirit who kills females by striking them with a yam and then eating them', *nabirriwarnngu* 'spirits represented in some types of rock painting' (E). Note also *na-malk-be* 'epileptic fit', whose form suggests epilepsy is believed to be caused by evil spirits — compare with the expression *namalkbe gabibun* [lit. 'a fit is hitting him'] 'he is having a fit'.

(c)   The names of some mammals (e.g. *na-garndegin* 'dingo', Dj, I *na-gayalak* 'little flying fox *pteropus scapulatus*', *na-djinem* 'male black rock wallaroo' (I), *na-barlek* 'little rock wallaby, *peradorcax concinna*', I *na-kornborrh* 'juvenile agile wallaby', I *na-kurdakurda* 'male agile wallaby, very large specimen'). Some inherently masculine animal terms have *na-* prefixed forms in the avoidance register but not in ordinary language (e.g. *na-gulngunj* 'male black wallaroo' = o.l. *barrk*; *na-njamlurruk* 'male common wallaroo' = o.l. *galkberd*).

(d)   The names of some reptiles (e.g. *na-warndak* 'Arafura file snake', *na-waran* 'Oenpelli python', I *na-badbirrem* 'small rock lizard', I *na-manjwarre* 'crocodile'). In some snake names the *na-* prefix appears to have been absorbed into the stem (e.g. *nayin* 'snake (generic)', *namu*   'whip snake'), though see above on the problems of demonstrating this. Again, some animal terms that are unprefixed in the ordinary language have a masculine prefix in Kun-kurrng: *dadbe* 'king brown snake' (o.l.) but k.k. *na-djak-korrongko* [I-pain-big].

(e)   A few birds (e.g. *na-maddorl* 'wedge-tailed eagle', *na-djik* 'tawny frogmouth', *na-ngarrarlbak* 'Burdekin duck', *na-wangku* 'black duck', W *na-kodjborlonghborlongh* 'black-headed magpie').

(f)   A few fish (e.g. *na-bardebarde* 'Leichhardtian bony bream', *na-gerdmi* 'black bream', *na-gurl* 'toothless catfish', Dj, I *na-marn.gorl* 'silver barramundi', *na-rranggi* 'perchlet sp.', I *na-keryi* 'eel-tailed catfish', I *na-mindjibuk* 'very young silver barramundi', I *na-warlah* 'brown river stingray').

(g)   Some items associated with painting (a male activity), such as *na-birlabirla* 'ochre'.

(h)   A few honey words, such as *na-biwo* 'sugarbag (honey) found on antbeds, dead logs etc.; bee producing this honey', E *na-bad-yalk* 'honey from rocks' (though this takes the vegetable prefix in Kunwinjku, *man-bined*), and the avoidance equivalent *namawul* to ordinary Kuninjku *bobidj* 'honey in branches at the top of the tree'. The semantic domain of honey consistently splits across the *man-* and *na-* classes, and the generic for 'honey' is masculine even though it takes the Class III prefix (see below). The type of rock honey known as *man-yalk* in ordinary Kuninjku is known in the avoidance variety as *na-boddarrkke*.

(i)   A handful of insect terms (e.g. I *naworrkorl* 'green ant').

(j)   A few words for powerful meteorological phenomena (cf. the spirits discussed under (b)), such as I *nadjardawo*, E *nawurlam* 'whirlwind', I *na-kurl* 'last storms of wet season, "knock-em-downs"'.

II CLASS

(a)   A few nouns denoting female humans, many paired with corresponding male forms in *na-* (e.g. *al-gohbanj* 'old woman', *al-bininjgobeng* 'wife', *al-godjek* 'woman who has eloped', *al-gebguk* or *al-goigoi* 'promiscuous woman, "larrikin"', *al-gukgurlduk* 'black woman', *al-yauk* 'young girl'). The II prefix is also found on a number of kin terms characterised by respect or circumspection, such as *ngal-djum* 'address term for sister' (I).

(b)   A few mythical, ancestral or superhuman beings, of a clearly female nature, such as the Rainbow Serpent, *ngal-yod* in Dj and W and *ngal-mudj* in E (but ø-class *borlung* in

MM), I *ngal-malanjdirrihdirri* 'an old female mimih spirit', I *ngal-kunburriyaymi*, an ancestral mermaid creature.

(c) The Kun-kurrng names of certain large female marsupials, whose ordinary language terms are unprefixed but govern feminine agreement. Some examples are *ngal-marndamarndayi* 'female red kangaroo', whose ordinary language equivalent is the monomorphemic *garndaih*; *ngal-warddedjemngorrmo*, corresponding to ordinary language *djukerre* 'female black wallaroo'; and I *ngal-warddardomrdi* 'female wallaroo or euro' = o.l. *wolerrk*.

(d) Some names of reptiles and small marsupials, and the Kun-kurrng names of some reptiles and small marsupials whose ordinary language terms are unprefixed but govern feminine agreement such as *al-walngurru* 'chameleon dragon *chelosania brunnea*', *al-mangeyi* 'long-necked turtle *chelodina rugosa*', *al-ngururrkmanj* 'olive python' (Dj).

Note that the last word has a Class I prefix in Gun-djeihmi ordinary language, while in other dialects its equivalent is unprefixed (*manjdjurdurrk*) but governs feminine agreement, and has the feminine-prefixed avoidance-language form *ngal-wirnyi*. Other examples of feminine-gender unprefixed words that take a Class II prefix in the avoidance language are *ngal-kadjeddjed*, corresponding to ordinary language *ngarrbek* 'echidna', *ngal-ngarelyi*, corresponding to ordinary language *komrdawh* 'long-necked turtle', and *ngal-djangara-kurlngunj*, corresponding to ordinary language *djurn* 'black-headed python'.

(e) A few bird names, such as *al-mandjurlgadj* 'swamp hen, crake', *al-marngul* 'Australian little grebe', *al-wanjdjuk* 'emu', *al-maygorlo* 'finch sp.', Dj *al-gordow* / I *ngal-kordo* 'brolga', W *ngal-kurndurr* 'white egret'.

(f) A few fish, such as *al-makkawarri* 'lesser salmon catfish',[10] *al-men.giyanggu* 'lesser salmon catfish', *ngal-dadmo* (Dj), *ngal-dadmurrng* (I), *ngal-kid* (E) 'saratoga', Kuninjku *ngal-djenken* 'garfish'. The Kun-kurrng words for 'filesnake', *ngal-djangarabunebune* and *ngal-djangarakerlkkerlk* has a feminine prefix, though its ordinary equivalent in Gun-Djeihmi, *nawarndak*, has an absorbed masculine prefix, and other words in the dialect chain are unprefixed: W *kedjebe*, I *bekka*.

(g) A number of shellfish and crustacean terms (e.g. I *ngal-djarlarrk* 'salt water cockle shells'). There are also terms from this set that are ø-class in ordinary language but have II-prefixed equivalents in Kun-kurrng (e.g. I o.l. *barnkabarra* 'mud crab', k.k. *ngal-kundamenkorrongko*). The gathering of shellfish is traditionally a female activity.

(h) A number of meteorological/celestial terms such as *al-gokkarrng* 'star(s)', *al-djurlum* 'willy-willy', E:D *ngal-benbe* 'sun', E:N *ngal-wodjdjo* 'floodwaters (fresh)', Dj *al-yurr* 'Leichhardt's grasshopper' (prob. etymologically derived from **yurr* 'storm' via the association of this grasshopper with the stormy season — see Evans 1997d).

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[10] This is in Gun-djeihmi. Kunwinjku has the III-prefixed *man-makkawarri*, but with feminine agreement — *ngalekke manmakkawarri* 'that lesser salmon catfish' — while Kuninjku has the I-prefixed *na-makkawarrinj*.

III CLASS

(a)   Most nouns denoting or concerning plants or their edible products (e.g. *an-badbirri* 'wild apricot, hibbertia sp.', *an-balindja* 'vitex acuminata', *an-bernbern* 'ghost gum', *an-gumbe* 'cycad flour', *an-galgid* 'juice, nectar'). Some names for parts of plants also take Class III (e.g. *an-dad* 'root', *an-dedj* 'butt (of yam)', Kuninjku *man-bundjak* 'sweet edible plant resin').

(b)   Nouns for various types of food which, though not vegetable, are nonetheless not classed as meat, and which like vegetables are subsumed under the generic *(m)an-me* 'non-meat food'. A major subclass concerns bees and honey (e.g. *(m)an-dabu* 'bees' eggs', *(m)an-djok* 'sugarbag', *(m)an-gung* 'sugarbag, honey (generic)', *(m)an-njam* 'honeycomb, bee bread', *(m)an-yalk* 'bee sp. that "dives into rocks"', *(m)an-yiwk* 'honey (generic)', and *man-bined* (W) 'rock honey'). The dual affiliation of honey terms between Class I and III was mentioned above, and they display a parallel split between masculine and vegetable when it comes to gender.

(c)   Anatomical terms pertaining to genitalia, sexually produced fluids or excretion (usually to distinguish them from other anatomical terms with the same root), such as *(m)an-berd* 'penis' (cf. *gun-berd* 'tail'), W *man-day* 'head of penis', W *man-daydjen* 'urethra', W *man-mangerrmangerr* '"gills" under head of penis', *(m)an-bale* 'vagina', *(m)an-gorn* 'crotch, vagina', W *man-berl* 'part of penis excised during subincision' (cf. *gun-berl* 'arm'), W *man-djin* 'inside of vagina, walls of vagina', W *man-korndjen* 'clitoris', *(m)an-rduk* 'semen', *(m)an-gurrk* 'vaginal juices' (but also 'edible gum'), *(m)an-gord* 'excreta, shit', *(m)an-dili* 'urine'.
       Anomalous noun-class membership for genitalia, and the association of genitalia with edibility (perhaps mediated by the common use of 'eat' as a euphemism for 'fuck') has been reported for other Australian languages. In Yanyuwa *-ragugu* 'penis', although taking a male possessive prefix, governs 'food-class' modifier agreement (Kirton 1971:58). In Maung one obscene term for 'penis', *mayirradad*, involves the vegetable-class prefix on the root *yirradad* 'meat food' (Capell & Hinch 1970:52). In Tiwi 'parts of the body are of the same gender as their possessor, except for the genital organs, which are invariably of the opposite gender to the possessor' (Osborne 1974:51).
       In Kuninjku a further body-part term in this class is *man-bolidj* 'ceremonial scar', possibly through its association with ceremony (Class III, see below).

(d)   A few bird and fish names, though not all speakers agree on the noun class of these, and it is a mystery why these nouns are Class III. One Gun-djeihmi speaker says *an-gurndurr* for 'egret', but other speakers give *al-gurndurr* (cf. W *ngal-kurndurr*); eastern dialects have *man-djangarli* for 'black duck', and Kuninjku has *man-barladjidji* for 'plumed whistling-duck'. Kunwinjku has *man-makkawarri* for 'lesser salmon catfish' (but with feminine agreement), which in Gun-djeihmi is Class II: *al-makkawarri*.

(e)   The word for rain and rain-water, *(m)an-djeuk*. This governs masculine agreement in Kunwinjku and Gun-djeihmi.

(f)   Some honey terms, including the generic terms for honey, Dj *an-yiuk* and W, I *man-kung*, but also I *man-bobbidj* 'wild honey type', though its Kun-kurrng equivalent is Class I, *na-mawul*. See remarks under (h) of Class I about the split between these two classes for honey terms.

(g) Some geographical terms. Some of these are associated with the growth of forest (see some of the terms for stands of plants in §5.3.3.1) or the presence of drinking water (e.g. *(m)an-gabo* 'creek, river' and I *man-bohbobowk* 'country with lots of water-catching depressions'). But with others the link is less clear: *(m)an-berrk* 'open lowland area', *(m)an-bolh* 'track, buffalo pad', *(m)an-bowk* 'plain', *(m)an-dulum* (var. *an-dulung*) 'mountain'. Note particularly the switch from *gun-* for body-part nominals to *(m)an-* for some metaphorically similar landscape forms (e.g. *gun-ngalng* 'turtle shell', *(m)an-ngalng* 'cliff'; *gun-berl* 'arm, wing', *(m)an-berl* 'small tributary creek, branch of river').

(h) Some wooden implements (e.g. *(m)an-barnba* 'goose stick', *(m)an-gole* 'bamboo spear', *(m)an-birrmulu* 'spear type', *(m)an-danj* 'three-pronged fish spear', *(m)an-larrbi* 'spring wattle spear', *(m)an-dobbo* 'bundle, esp. of spears', I *man-berlnginj* 'clapsticks'). There is also one non-plant-derived part used with such wooden implements: *(m)an-birrmulu* 'quartz used in spear tips'.

(i) The congruent vegetable gender is used for vehicles (i.e. boats, cars and planes), but the only examples of Class III with these involve descriptive expressions like *man-denge-yi* 'car, i.e. having feet/tyres' and *man-wel-yi* 'planc, i.e. having wings' (see 5.34), which presumably arose from agreement and substantivisation.

(j) Fires that burn in the bush (as opposed to domestic fires): *(m)an-wurlh* and *(m)an-wurrk* 'fire used to round up kangaroos'.

(k) Names for cultural practices carried out on specific occasions, such as *(m)an-karre* 'corroboree, dance, song', I *man-dule* 'song', W *man-karni* 'revenge magic', I *man-kordang* 'magic, shamanistic powers', I *man-beng* 'ritual payment of goods such as those given to clear silence relationships' (cf. *kun-beng* 'faculty of intellection and understanding'). Other cultural practices observed on a daily basis (e.g. language and its varieties) are in Class IV.

   Man-burrba 'cloth' may be in Class III because cloth was a traditional means of ceremonial payment, or because of its extra specialised sense 'men's ceremonial loin-cloth'.

IV CLASS

(a) Most body parts (e.g. *gun-godj* 'head', *gun-denge* 'foot', *gun-dang* 'mouth', *gun-bid* 'hand', *gun-ganj* 'meat'), except body parts pertaining to sex or excretion, which are class III (see group (c) above).

(b) Many things made of wood or string, and implements in general (except for weapons — (III(h)) such as, *gun-wabban* 'axe-handle', *gun-yarl* 'string', *gun-dirdde* 'shoulder bag', *gun-gurrardba* 'bush string', *gun-ngobarn* 'string fibre made from leaves of pandanus'.

(c) Life-form terms for plants (e.g. *gun-dulk* 'tree' (which contrasts with *man-dulk* 'acacia sp.'), *gun-dalk* 'grass', *gun-god* 'paperbark tree'). A revealing example here involves words for pandanus. Most dialects have three names for the three species of pandanus found in the area, and these species names generally belong to Class III (e.g. Dj *an-yakngarra* 'pandanus spiralis', Dj *an-djimdjim*, W *man-belh* 'pandanus aquaticus', Dj

an-morre, W *man-kudjek*, I, E *man-ngohngo* 'pandanus basedowii'). However, in Kun-kurrng a single more general term is used to subsume all three, and this belongs to Class IV: *gun-yarilng*. (Note that Class IV is also used in Kune and Kuninjku for one more specific term, namely *kun-dayarr* 'pandanus spiralis', though this is the prototypical member of the pandanus set).

(d)   Most landscape terms (e.g. *gun-borlo* 'hollow in ground', *gun-djidning* 'laterite', *gun-djurrk* 'strong current, running water', *gun-gayalanj* 'sandbar, sand, sandy place'). A coherent set of exceptions is the set of landscape terms derived by transfer into the vegetable class of neuter nouns denoting body parts (see III Class (g)).

(e)   Words pertaining to camp or domestic fires (e.g. *gun-yerrng* 'firewood', *gun-bili* 'flame', *gun-dolng* 'smoke', *gun-rurrk* 'dwelling, shelter', *gun-godbarri* 'paperbark shelter').

(f)   Names for clans and clan territories (e.g. *gun-mogurrgurr* 'clan' (Dj, W), *kun-nguya* 'clan' (R, E), *gun-Badmardi* 'Badmardi clan lands').

(g)   Names for language and languages, and other cultural practices pervading everyday life (e.g. *gun-wok* 'language', *gun-gurrng* and *gun-barlak* 'avoidance language, and other more general aspects of respect behaviour', *gun-borrk* 'dance', I *kun-berr* 'fun, joking behaviour'). The association of the Class IV prefix with languages is sufficiently strong that it is added to a number of names for neighbouring (see §1.2.3).

(h)   Intangible and abstract nouns (e.g. *gun-njirrge* 'hatred', *gun-ngordo* 'leprosy'; *kun-njilng* 'feeling' (W), *kun-warre* 'evil; wrong marriage', *kun-mak* 'goodness; proper marriage', *kun-djamun* 'holiness, ceremonial discipline', W, I *kun-dowiken* 'death', I *kun-modmiken* 'power, strength').

Ø-CLASS (CLASS V)

This cannot be characterised in any positive way, not even as a residue class. In terms of its semantics, it contains nouns that one would expect to belong to just about any of the above subgroups of classes I–IV, though with a preponderance of animate nouns, artefacts and loanwords. Out of a sample of 350 nouns from Kunwinjku and Gun-djeihmi, around 90% of human nouns were unprefixed once terms for contrast sets were excluded; for mammals the ratio is comparable, for birds it is around 85%, for reptiles, around 70%, and for artefacts, about 73% (though this drops to around 60% once English and Macassan loans are excluded). For other semantic categories, on the other hand, the ratio of ø-class nouns is much lower: of plants, only 30% are unprefixed (a disproportionate number being terms for waterlilies), and virtually all body parts proper are prefixed except the term for 'body' itself, *guk*.

Apart from the overall correlation of ø-class with animates and artefacts, words in this class span virtually every semantic subcategory given for the four prefixed classes, and frequently they have equivalents in other dialects, clan lects, or in Kun-kurrng that take the prefix one would expect from their semantics. Where each of the other four classes has a correlation, albeit incomplete, with a congruent gender category, such that the agreement behaviour of a word can be roughly predicted from its noun-class prefix, this is not the case with the ø-class; rather, gender agreement is what one would expect of prefixed nouns in the relevant semantic sub-category.

In what follows I shall not give full exemplification of all semantic subclasses of unprefixed nouns, but a sample of words corresponding in their semantics to each prefixed class.

To class I: male human (e.g. *bininj* 'man, person'); male spirit (e.g. *malk* 'malevolent spirit'); male mammal (e.g. *gandagidj* 'male antelopine wallaroo'); large animal (e.g. *nganabbarru* 'buffalo' and *kunj* 'macropod (generic)'); reptile (e.g. *kurrudjardu* 'whip snake' and *kalawan* 'goanna'); bird (e.g. *bamurru* 'magpie goose' (Dj), *galdurrk* 'kookaburra' and *garnamarr* 'black cockatoo'); fish (e.g. *wamba* 'shark'), and artefact associated with masculine activity (e.g. *dolobbo* 'bark painting'). All of these words govern masculine agreement.

To class II: female (e.g. *daluk* 'woman, female', though note its II-prefixed Kun-kurrng equivalent *ngal-djubdjubgen*); female large marsupial (e.g. *garndaih* 'female red kangaroo'); small animal, bird and reptiles (e.g. *ngarrbek* 'echidna', *ngurrurdu* 'emu' (E; overtly prefixed as *al-wanjdjuk* in Dj), *minjbulung* 'Torres Strait pigeon', *gurrgurldanj* 'scrub fowl' and W *manjdjurdurrk* 'olive python' (with overt II prefix in its Dj equivalent *al-ngururrkmanj*)); a fish (e.g. I *boddowk*, W *burd* 'spangled grunter', which in the Kundedjwarre clan lect is *ngal-keblorrk*). Again, all of these govern feminine agreement.

To class III: plant and plant-product examples are *yaldanj* 'lily sp.', *karrbarda* 'hairy yam' (but k.k. *man-karremurdyi*), E *mardamarda* 'yellow flowering acacia' (= I *man-djoh*), *kabbay* 'sticky material made from ironwood sap'; excretory product (e.g. W *kurduk* 'turd, shit'); water (e.g. *kukku* (Dj, W) 'water'). All govern vegetable agreement.

To class IV: body part (e.g. *guk* 'body'), wood/string artefact (e.g. *gurlbburru* 'axe') and trade/cultural practice (e.g. *bulk* 'trade, exchange; traded item'). There are also many language names in this group (e.g. *Gagudju* 'Gagudju language').

As mentioned above, loan words generally join this class, though occasionally they accrue noun-class prefixes of the semantically expected type, as with *(m)an-rud* 'road' (< Eng 'road').

5.5.2.5 *The part class* -no *in eastern dialects*

The noun-class system of the easterly dialects (Kuninjku, Kune and Manyallaluk Mayali) has developed a sixth, suffixing noun class, under Dalabon/Rembarrnga influence. What one may broadly term 'part nouns' drop any noun-class prefix they may have in more westerly dialects, and instead add the suffix *-no*, which in the eastern dialects has extended its use from third person minimal possessive anaphor to a general marker of parthood.

Examples of the possessive anaphor use in other dialects, such as *wurdurdno* 'her children' (5.156), were given in §5.3.3.3, and this use is found in the eastern dialects as well, as in E:N *kandji yaw-no* [jabiru child-3POSSD] 'baby jabiru, child of jabiru' and:

5.233	*Ngarri-yewkme*	*djenj*	*kurlah-no,*	*ngarri-kinje.*		
E:N	1a/3-rinseNP	fish	skin-3POSSD	1a/3-cookNP		
	'We wash the poison out of the fish's skin, and then we cook it.'					

5.234	*Ka-kurlh-karu-ng*	*dabu-no*	*ka-kurrme,*	*ka-rrudje-n,*	*rerre*
E:D	3/3l-dirt-dig-NP	egg-3POSSD	3/3l-put.downNP	3/3l-bury-NP	later

> *yaw-no   ka-bebme.*
> child-3POSSD   3-appearNP
> '(The scrub fowl) lays its eggs in the dirt, covers them over, and later its children come out.'

A slight widening of the use of this suffix in Gun-djeihmi and Kunwinjku involves its use with nouns referring to tracks, imprints and nests; for these nouns, reference back to the entity making them is normally contextually implicit, as in Dj *barlahno* 'tracks of a crawling animal', *djenkehrno* 'nest' (incl. of a crocodile) and *barrardno* 'rut in road'. In Gun-djeihmi these few forms constitute a small set of nouns which are not attested with a noun-class prefix, and always occur with the *-no* suffix (except of course when incorporated, as in *ga-barlah-yo* 'there are tracks lying there'). Within those dialects they are best treated as a subset of the unprefixed class, contrasting with other unprefixed nouns which do not (in these dialects) take the *-no* suffix (e.g. Dj *dabu* 'egg').

As one moves east through the dialect chain, the use of the *-no* suffix gets extended. A salient bridging context, in which analysis either as anaphor or as part marker is equally plausible, is furnished by discussions of dismemberment and eating, in which body parts are referred to in isolation, but the whole from which they have been removed furnishes an implicit possessive anaphor:

5.235   *Kurlah-no   karri-we,   kanjdji karri-ngu-n.*
E:N   skin-3POSSD/PRT   12a-throwNP   inside   12a-eat-NP
         'We throw away its/the skin, and eat the inside.'

5.236   *Barrk   ka-ngu-n dedj-no.*
E:N   black.wallaroo   3-eat-NP   root-3POSSD/PRT
         (Discussing a particular plant:) 'Black wallaroos eat its/the bark.'

By the time one reaches Kuninjku, nouns for parts of humans, animals and trees are all regularly encountered in two forms, one with a noun-class prefix (e.g. *kun-keb* 'nose', *kun-mim* 'eye', *man-mim* 'seed, fruit') and one with the prefix dropped and the *-no* suffix added (e.g. *kebno* '(his/her/its) nose', *mimno* '(his/her/its) eye; its seed, fruit'). As the last example shows, certain semantic differences signalled by alternate noun-class prefixes are expressed by the same form once the part-marking suffix is adopted at the expense of the prefixes. Some unprefixed nouns also show alternations (e.g. *dabu* ~ *dabuno* 'egg'). One restriction on the use of the *-no* forms is revealing: the possessor still has to be third person minimal, as with the anaphoric possessive use. Thus one can say *kebno* for 'his/her/its nose', but to say 'my nose' one has to say *kun-keb ngarduk*, using the *kun*-prefixed form and the appropriate possessive pronoun. (Note though, that if one simply points to one's nose — for example in asking for the word 'nose' — *kebno* is acceptable; the *-no* is only ruled out if non-third minimal possessor is being insisted on.)

The *-no* suffix is also found, in Kuninjku, on a number of adverbial-type time words, as in *wolewolehno* 'dusk, late afternoon, yesterday' (cf. Dj *wolewoleh*, without the suffix), *rawoyhno* 'again' (only attested as a verbal prefix in Dj, with form *yawoih-*). However, time words of a more clearly nominal nature, such as *kun-kak* 'night', do not have an alternate of the form *kakno* in this dialect.

We now turn to the Kune dialect, in which the use of the *-no* suffix to mark part nouns reaches its fullest elaboration. Manyallaluk Mayali appears, on the evidence of preliminary

data, to correspond to the Kune situation, but only occasional examples from that dialect will be given.

The first significant difference between the use of this suffix in Kune and in dialects to the east is its freedom from the requirement that the possessor be third person. Thus phrases like *baleh malkno ngungkeh* [what skin-*no* your] 'what's your skin?', *darrkid-no ngarduk* [body-*no* my] 'my body' or *ridme-no ngadkih* [tooth-*no* our] 'our teeth' are fully acceptable, both in Narayek and Dulerayek subdialects. This demonstrates that the suffix has been reanalysed from a third person possessive to a marker of parthood or, to put it another way, the possessor is now the 'whole'; that is, *ridme-no* is to be construed as 'its tooth, i.e. the body's or the mouth's' rather than 'his tooth'.[11]

It is worth pointing out that in this respect, although Dalabon and Rembarrnga have likely served as the diffusional model for the development of this construction, and the domain of words taking this suffix is largely parallel, the detachment of *-no* from third person in Kune has gone beyond what is found in those languages. For example, †David Karlbuma, who was bilingual in Dalabon and Kune Narayek, said *darrkidno ngarduk* for 'my body' in Kune, but *dorrung-ngan* in Dalabon, using just the first person minimal suffix *-ngan*. This may be related to the fact that *-no* in Dalabon is clearly integrated into a full paradigm of possessive suffixes, whereas in Bininj Gun-wok it is essentially isolated as the only productive possessive suffix, making its contrast with other person values less salient.

The second significant difference is in its semantic range, and it is to this topic that we now turn in detail. Note first that words that do not denote parts (in the broad sense to be instantiated below) behave as in the western dialects, belonging to the five classes already discussed (e.g. *na-marnkorl* 'barramundi', *ngal-kordow* 'brolga', *man-kurladj* 'spike rush *eleocharis dulcis*', *kun-ronj* 'water', *bininj* 'person'). There is also a clear distinction between core cases of parthood in which virtually all nouns take the suffix, namely parts of animates, plants or artefacts, and less core cases such as parts of the landscape, heavens or diurnal cycle, where only a subset take the suffix and the rest behave as they do in the western dialects.

The following words take the *-no* suffix in Kune:

(a) BODY PARTS OF HUMANS OR ANIMALS Examples are *kodjno* 'head', *kebno* 'nose', *mimno* 'eye', *berdno* 'tail', *rakmono* 'hip', *kurlahno* 'skin', *ngerhno* 'heart, heartbeat, breath', *kanjno* 'muscle, flesh, meat', *mudno* 'fur, downy feathers', *berlno* 'arm; wing', *konno/mirhno* 'spike', MM *ngalanhno* 'shell' as well as a range of compounds — see §5.4.2.

Extruded parts, traces and products such as *dabuno* 'egg', *djorhno* 'crocodile's nest', *djomono* 'track, pad (e.g. of buffalo)', *mono* 'bones; remains', *durnno* 'web' and *ngalkno* '"nose", entrance passage to beehive' are included here. An interesting reversal of the usual part–whole relationship of animal to product is in the case of some bees, where a single term denotes both the type of honey and the bee that produces it, but where the actual word for the insect appears as *bodno*, literally 'its bee', i.e. the bee of the hive or the honey (e.g. *nabiwo bodno* 'the bee of the *nabiwo* honey'). In western dialects this is simply *bod*. This does not stop other names for parts of the honey product from also taking the part suffix (e.g. *ngurrkeno* 'liquid honey').

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[11] This raises the question of what 'body' is then part of, although since the focal reference of *darrkidno* is the trunk the answer may be that the trunk is part of a more comprehensive whole; alternatively the 'body' might be part of the whole 'being' which includes 'soul', 'name', 'breath' and so on.

Also included are words having to do with aspects of essence or representation, including *ngeyno* 'name', *malkno* 'subsection, "skin"', *bimno* 'image, picture', *rarrkno* 'cross-hatching on painting', *waralno* 'spirit'.

The only body parts that do not normally take the *-no* suffix are sexual body parts, which take the Class III prefix as in other dialects (e.g. *man-berd* 'penis', *man-korn* 'vagina'). In some cases this leads to structural splits between prefixed and suffixed forms (e.g. *berdno* 'tail' (*kun-berd* in western dialects) and *man-berd* 'penis', and, in I, *kirhno* 'mud' (*kun-kih* in Dj) and *man-kirh* 'vagina').

(b)   PARTS AND PRODUCTS OF PLANTS Examples are *kono/nguyno* 'flower', *marlaworrno* 'leaf', *dorrhno* 'stem', E:D *dongeno* 'dead leaf', *mimno* 'seeds, fruit', MM *galhno* 'stump', *dedjmadno* 'root', *kalkidno/nunjno* 'juice/glue from *djalamardi* orchid (cymbidium sp.)', *kuyno* 'resin', *koyhno* 'resin from spinifex', *duyhno* 'powder', *yarlno* 'string, rope' (traditionally made from bark or fibre). A revealing exception (without *-no*) is *dorddord* 'eucalyptus seeds', formed by reduplicating the word for 'louse'.

(c)   PARTS OF ARTEFACTS Examples are *nginjno* '(fish)hook', *kebno* 'hook', *benno* 'handle', MM *madjbarnelno* 'shoulder strap of bag'.

(d)   SOME PARTS OF THE LANDSCAPE AND HEAVENS Examples are *kodjno* 'head of gorge', *kabono* 'creek', *durrunno* 'mountain', *bolidjno* 'grooves, scars (on rock)', *mokolngno* 'flat rock', *rudno* 'road'; *berreno* 'cloud', MM *njilkno* 'rain'. Some have prefixed forms as alternants: *labbarlno* 'billabong' alongside *kun-labbarl*, and *ngarreno* 'jungle, rainforest' alongside *man-ngarre* or *mi-ngarre*. Note, though, that many parts of the landscape and heavens do not take the part suffix: *kun-kawadj* 'sand', *kun-bad* 'rock', *kun-ngol* 'cloud', *kinhkinh* 'star'. We lack the space or the comprehensive data to go into how far this partition has a semantic basis in what counts as parthood for landscape terms.

(e)   LIFE-FORM TERMS FOR PLANTS We saw above that in the western dialects terms like 'tree' and 'grass' belong to Class IV, whereas terms for particular plant species are in Class III. Now while the names for particular plant species in the eastern dialects behave just as they do further west (taking the *man*-prefix, as in *man-kurndalh* '*vitex acuminata*' or *man-djimdjim* '*pandanus acquaticus*' and never allowing a *-no*-suffixed alternant), the life-form terms sometimes occur in the suffixed form as an alternative to the IV-prefixed form: *kun-dulk* ~ *dulkno* 'tree', *kun-dalk* ~ *dalkno* 'grass'. Examination of the contexts here is instructive. In the first case the part-suffixed form is used where another sense of the first lexeme, namely 'stick; trunk', is being emphasised: *mankalarr dulkno* 'trunk of the *man-kalarr* tree'. In the second, the part-suffixed form is used in the context 'the grass part of the landscape':

5.237   *Bininj   birri-wam   dalk-no   birri-wurlhke-ng.*
E   person   3aP-goPP   grass-PRT   3aP-set.fire.to-PP
             'Men went and burnt off the grass.'

(f)   PARTS OF THE DIURNAL CYCLE, AND OTHER TIME WORDS There is considerable variation here on which words are included. Always taking *-no* are the words for 'yesterday', *wolewolehno* (I, E) and E *ngorkkowino* 'night'. Another 'night' root, *-kak*, takes the part suffix in Kune (*kakno*) but is prefixed in Kuninjku (*kun-kak* or *ku-kak*), the word for 'a night, a sleep' does not take the suffix (*kun-kodjdje*), while words for

'tomorrow' are attested both with and without the suffix: E:N *ngulam* 'tomorrow' but E:D *ngulanjakno*. The term *rawoyhno* 'again' can also be grouped with this set.

(g)   SOME QUANTIFICATIONAL TERMS   such as *djarrkno* 'two' (cf. the verbal prefix *djarrk-* 'together'), *bulno* 'big mob' and *njonno* 'mob', perhaps based on an extension like 'that part of the group's characteristics that is its cardinality'.

(h)   SOME ADJECTIVES Adjectives in Kune split about evenly between those taking *-no* and those taking a gender prefix (virtually always *na-* as a result of the collapse of gender distinctions in this dialect); a few allow either possibility. Adjectives taking the part suffix are E *kanbino*, I *kukno*, MM *djorlengno* 'ripe' (but their k.k. equivalent is prefixed, *nakuybi*), *kirrbelno* 'wet', *darrkidno* 'alive', *barngno* 'poisonous', *wobno* 'light', *yarlno* and *durnno* 'long' (though *nakuyeng* is also used). 'Short' allows either construction: *dukkurrhno* or *na/ngal-dukurrh*. Adjectives taking the gender prefix are *namak* 'good', *nawarre* 'bad', *nabarmeng* 'red', *nakunkun* 'heavy', *nabadjan* 'big', *ngaldaluk* 'female' and *narangem* 'male'.

Two interrelated questions remain problematic here: the semantic motivation for extending the part suffix to this group, and the basis for deciding which adjectives take it. Is it based on the status of the qualified entity as part of the extension of entities having that property,[12] or at least as part of a set of comparanda such as the big ones in a set graded for size? Or is it because, for those adjectives that take it, it is the state of a crucial part that determines the application of the adjective.

Consider *barngno* 'poisonous', which also means 'its poison'; this adjective will normally be applied to a plant, for example, just in case 'its poison' is still in it, for example from not having been leached out. Or consider the application of *wobno* 'light' to a spear shaft. The crucial fact is that the internal spaces are empty of fluid; a text in Gun-dedjnjenghmi by Lofty Bardayal about the trials of carrying spear shafts uses the inchoative verb *wobmen* to describe the point at which they become lighter as the water finally comes out of them, and the probably related Kunwinjku word *kun-wobe* means 'lungs'. A sentence example illustrating the way a typical context of use with 'wet' lends itself to either translation is the following:

5.238   *Nga-bekka-n   kirrbel-no.*
E   1/3-feel-NP   wet-PRT
         'I can feel it's wet; I can feel its wetness; It feels wet.'

Many of the adjectives taking *-no* originate as nouns: *kukno* 'ripe' means 'body' in other dialects (as does its k.k. equivalent *na-kuybi*), as does *darrkidno* 'alive'; both *yarlno* and *durnno* 'long' also mean 'string', and *barngno* 'poisonous' also means 'poison', as we saw. On the other hand, most of the adjectives which take gender prefixes, such as *namak* 'good' and *nawarre* 'bad', are clear adjectives in the other dialects. More detailed investigation of examples of adjective use, and of the etymology of the whole set of terms, may reveal that

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[12]   This analysis would be compatible with the view of Capell (1962), who in a brief remark regarding the comparable use of the *-no* suffix in Dalabon, suggests these are basically abstract nouns, e.g. Dalabon *bi weh-no* [man bad-PART] 'bad man' is to be construed as 'man of badness'. However, Dalabon has extended the use of *-no* with adjectives much further than Kune has, e.g. to take in evaluatives like 'good' and 'bad', so it is not clear that exactly the same account of their semantics should be given.

the split into adjectives taking -*no* and those taking gender agreement is based on how far 'essential parts' of entities are used in adjectival evaluation.

The net effect of developing a sixth part class in the eastern dialects has been twofold.

From the morphological point of view it makes the expression of class more complex, by taking in suffixation as an option to prefixation (or non-affixation in the case of Class V).

This represents a partial typological convergence in these dialects with their Gunwinyguan neighbours to the immediate east, Dalabon and Rembarrnga, in both of which prefixal morphology on nouns is highly restricted. However, this should not be exaggerated, since no nominal prefix is actually being lost in the process; the Class I and II prefixes (*na-* and *ngal-*) are completely unaffected, while the Class III and IV prefixes, as well as the locative prefix *ku-*, remain productive but apply to a more limited class of entities.

The second effect is the development of an entirely new semantic category, in the form of the part class, and the leaching of the most obvious part nouns (body parts, plant parts) out of Classes III and IV, leaving these classes with a different semantic centre of gravity (e.g. names of languages and abstracts remain in Class IV). The reclassification of certain other entities whose part status is less obvious (e.g. mountain, river, night) appears to be more variable and inconsistent and would repay closer study of the cross-dialect differences.

Again, while this represents a partial semantic adjustment towards Dalabon and Rembarrnga, which also have a part class of nouns, it is not a total convergence, since those languages lack the other semantic categories (masculine, feminine, vegetable, neuter) that are retained in Kune.

5.5.3 Gender

As outlined in §5.5.1, there is much more cross-dialectal variation when it comes to gender than is the case for noun-class. At the level of the diasystem we can set up a four-class system with the following internal structure:

Unmarked	Masculine	Vegetable
Marked	Feminine	Neuter
	Animate (unmarked)	Inanimate (marked)

The two unmarked categories, masculine and vegetable, benefit in various neutralisations (§5.5.4) in which normal gender agreement is suspended, both within dialects like Kunwinjku that have all four genders, and when one considers simplifications to the system in some dialects. Neuter, as the most marked category overall, survives only in Kunwinjku and (to a lesser extent) Kuninjku. Masculine, as the least marked category, survives in all dialects (even when the four classes collapse to one in Kune, it is the masculine form of adjectives that is generalised). In dialects with three or four genders intact, it also benefits the most from various types of neutralisation, and is the gender found in most non-congruent agreements (that is, those in which the gender prefix differs from that one would expect from the noun-class prefix). Vegetable, as the second-least marked category, benefits through the extension of agreement in some contexts in four-gender systems, inherits the membership of the neuter gender in dialects like Gun-djeihmi that have moved to a three-gender system, and in the one-gender systems of Kune survives marginally, through the retention of a couple of vegetable-class demonstratives in limited contexts.

As already mentioned, Kunwinjku has the maximal and probably the most conservative system, with four genders producing agreement on modifiers, using formally identical prefixes to those in the noun class system. Examples of the four genders being marked on modifiers of various types are:

5.239   *Warreka*   *ø-re-y*   *ngal-mekke daluk,*   *minj bene-yu-wirrinj*   *na-mekke*
W   wrongly   3P-go-PI   FE-that   woman   not 3uaP-sleep-IRR   MA-that

   na-bininjkobeng
   ĭ-spouse
   'But even though that woman went around with him, she did not sleep with her husband.' [OP 349]

5.240   *Ka-ngokme duruk bu*   *ka-ngalke-ø ngal-ekke*   *ngarrbek.*
W   3-barkNP dog   SUB   3-find-NP   FE-that   echidna
        'The dog barks when it finds the echidna.'

5.241   *Bu*   *ku-djewk*   *karri-re*   *wanjh*   *karri-ma-ng*   *man-u*
W   when   LOC-rain   12a-goNP   well   12a-get-NP   VE-REL

   man-djurrukumalba.
   III-berry.plum
   'When the wet season comes, then we gather those berry plums.'

5.242   *Wanjh*   *bene-karu-y*   *kun-kimuk*   *kun-ngad.*
W   then   3uaP-dig-PP   NEU-big   IV-well
        'And then they dug a deep hole.' [OP 395]

Even in Kunwinjku, though, there is a tendency to reduce the number of genders. Over the forty-year span for which we have recorded textual materials, there is a tendency for vegetable agreement to be extended at the expense of neuter agreement in certain semantic categories. In Gun-djeihmi and the other Mayali dialects this tendency has led to the neutralisation of the vegetable vs neuter distinction in favour of the vegetable gender. As the logical endpoint of this development, in the eastern dialects the system collapses altogether, with the generalisation of the masculine to all contexts.

This section concentrates on the rules for gender assignment in Kunwinjku. Unless otherwise mentioned, the rules in Gun-djeihmi can largely be derived by merging the two inanimate genders into the vegetable. Gender agreement in a number of other dialects represents intermediate points along the trajectory outlined in the preceding paragraph, for exmaple Kuninjku has largely eliminated neuter agreement, but retains it for a few time and other nouns. For reasons of space these dialects will be ignored here.

The basic contents of each of the four gender categories in Kunwinjku are shown in Table 5.5. Comparison with Table 5.4 will illustrate the basic parallels in semantic structure with that of the noun-class system, as well as some relatively minor differences. Categories in brackets have migrated from the neuter into the vegetable gender for some (mostly younger) speakers of Kunwinjku. Gun-djeihmi gender categories are comparable to Kunwinjku, except that all nouns that are neuter in Kunwinjku have passed into the vegetable gender in Gun-djeihmi; there are also sporadic differences in individual lexemes which will be commented on where relevant.

Table 5.5: Overview of semantic categories in gender assignment

Masculine	Vegetable
Male higher animates	Plants and their products, including life-form terms
Overall default for animates	
Some lower animates	Sexual and excretory body parts
Rain	Song, ceremony and custom
Compass points	Fire (both bush and domestic)
Some items used in painting	Food, vegetable and otherwise
Trade items, esp. Macassan and European	Some types of honey
Some types of honey	Boats, planes and cars
	[Drink, water, well]
	[Camp nexus]
	[Landscape features with water associations]
Feminine	**Neuter**
Female higher animates	Most parts of animals and plants
Some lower animates	Some parts of the landscape
Sun	Weather and sea
	Time measures
	Languages and speech
	Country; place-based social categories

We now discuss each of these categories in turn. The discussion is basically organised by gender, but departs from this where particular contrasts are relevant (e.g. between masculine and vegetable for terms for honey). Note that only humans, some spirits, and macropods (kangaroos and wallabies) have sex-differentiated lexemes, that is lexical items whose meaning includes the sex of the referent.

5.5.3.1 Details of gender assignment

In discussing examples, agreement will be illustrated with naturally occurring phrases using a variety of modifiers, such as *namekke* 'that (masc)', *ngalekke* 'that (fem)' (see §7.3 for the full set) and *nakimuk* 'big (masc). Rather than gloss these phrases completely, I shall simply indicate the head noun with the symbol ‡ (e.g. *namekke ‡bininj* 'that man'). Where the head noun must be translated by several English words, these are joined with a '.', e.g. 'male.wallaroo'.

MASCULINE

All male humans take masculine agreement (e.g. *namekke ‡yawurrinj nakimuk* 'that big youth'). Except for a small group of specifically feminine spirits (see §5.5.2.4.II(b)), spirits of various types are always masculine (e.g. malignant sky spirits, ghosts of dead humans, or *mimih* spirits). Non-humans lexically specified as male (e.g. *‡kalkberd nakimuk* 'big male.wallaroo') will always take masculine agreement. Those that are sex-neutral but are

significant enough to humans to allow biological sex to be encoded when desired, such as *djarrang* 'horse' or *ngal-wandjuk* 'emu', may take it (see §5.5.4.1).

For vertebrate animates below humans there is a mixture of masculine and feminine members in virtually all biological categories (e.g. reptiles, birds, fish). Within each group, the division is fairly evenly balanced, and undoubtedly contains many arbitrary elements. However, there are a few general principles that partially save us from having to encode the gender of each item individually (see §5.5.3.2).

In the domain of native bees and honey, there is a single term for each bee species and the honey it produces. Thus *lorlbbarn*, for example, refers both to a particular type of honey found in tree-trunks, and to the bee that makes that honey.[13] The ten or so honey terms are evenly split between the masculine and vegetable genders; the masculine items tend to have phallus-like entry tubes (sometimes described in Aboriginal English as "boy-one sugarbag"), as with the *nabiwo* type, but the generic *man-kung* also allows masculine agreement alongside the vegetable agreement congruent with its *man-* prefix.

5.243 "*Yi-m-ra-y*   *nga-ngalke-ng* *man-kung*, **na-hni**   **man-kung**
W   2-hither-go-IMP 1-find-PP   III-honey   MA-this.here III-honey

    ka-h-di   *kore* *ku-boy*."
    3-IMM-stand   LOC   LOC-antbed
    "'Come over here, I've found some honey, here it is near the ant hill.'"

As the default animate category, the masculine extends to most non-vertebrates, the main exception being certain crustaceans (see below). Flies, ants, beetles etc. are all masculine, (e.g. ‡*bon nabang* 'stinging fire.ant', ‡*deddel nabang* 'stinging black.ant', ‡*djak nabang* 'stinging meat.ant', *namekke* ‡*bidkinjenbidkinjen* 'that firefly', ‡*kabo nakimuk* 'large green.ant').

Items used in painting and decoration are split between masculine (probably because of their association with the predominantly male activities of painting and ritual) and vegetable (due to the source of most of them as plant products), as in the following extract in which *kun-rodjbe* 'red (ochre)', *kun-kurlba* 'blood (colour)' and *delek* 'white clay' are masculine, while *karlba* 'yellow (ochre)' and *kun-burlerri* 'black; charcoal' are vegetable. For at least some, there is contextual variation in gender assignment: *delek* takes vegetable agreement in contexts not associated with art (for example, when discussing how it is eaten as a cure for dysentery), whereas in discussions of painting it takes masculine agreement. A similar split applies to *dolobbo* 'piece of stringybark' which will take masculine agreement when the painting on it is being focussed on, but vegetable agreement when its origin as part of a tree is being stressed, as in *man-kimuk yi-lawkmang dolobbo* 'you're cutting off a big piece of stringybark'.

5.244 *Na-wu*   *kun-rodjbe*   *kore* *kinga,* *nakka*   *kun-kurlba* *ngalengarre*
W   MA-REL   IV-red.ochre   LOC   croc   MA:DEM   IV-blood   her

    Likanaya. *Dja* *karlba* *makka*   *kun-balem* *ngalengarre.* *Dja*
    [name]   and   yellow   VE:DEM   IV-fat   her   and

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[13] The biological taxonomy of these insects has yet to be properly investigated and many still lack Linnean names — see Chaloupka and Alderson (1998).

> *kun-burlerri   makka   ngad   kun-kurlah, dja   na-wu   delek,*
> IV-black   VE.DEM   we   IV-skin   and   MA-REL   white.clay
>
> *wanjh   nuye kun-duk.*
> then   his   IV-sperm
> 'The red colour in the crocodile is the blood from Likanaya. The yellow is her fat, the black is our skin, and the white colour is sperm.' [KS 56]

Rain, rainwater or rain-cloud, *man-djewk*, takes masculine agreement despite its Class III prefix (e.g. *na-djalkimuk man-djewk* 'just (a) big rain'). The corresponding Gun-djeihmi word *an-djeuk* likewise takes masculine agreement (5.245), but in Kuninjku this word has vegetable agreement congruent with its noun class (5.246).

5.245   *Gu-wak   an-djeuk ba-djakdu-i na-gimuk.*
Dj   LOC-night III-rain   3P-fall-PP   MA-big
         'During the night a lot of rain fell.'

5.246   *Man-djewk man-kimuk ngan-bom ngadberre, birlibirli-wern   ngarri-na-ng.*
I   III-storm   III-big   3/1pl-hitPP 1aOBL   lightning-PLENTY 1a/3-see-PP
         'A large storm hit us and there was lots of lightning.' [GID]

The four compass points are all masculine (e.g. *nani ‡kakbi* 'there in the north'). So are most celestial nouns (e.g. *‡dird nakimuk* 'big moon', *‡kinhkinh nakimuk* 'big star').

Trade items, artefacts and all metal objects (these categories overlap substantially) all take masculine (e.g. *‡borndok nakimuk* 'large woomera', *‡djalakkiradj nakimuk* 'large wire.spear', *‡djirla nakimuk* 'large stone.axe', *‡lama nakimuk* 'large shovel.spear', *‡mandjawak nakimuk* 'large knife', *‡medjek nakimuk* 'large goose.wing.fan', *‡bakki nawarre* 'bad tobacco').

FEMININE

This is the most semantically coherent of the four genders. All female humans, and spirits whose female status is focussed on, are feminine (e.g. *ngalekke ‡daluk* 'that woman'). So are higher animate terms that are lexically female (e.g. *‡karndalbburru ngal-balem* 'fat female.antilopine.wallaroo'). Roughly half of the terms in other animate verebrate classes are feminine (§5.5.3.2), and all shellfish and crustaceans (e.g. Kuninjku *‡ngarlirrk ngalbu* 'those snails').

'Sun' is feminine, despite having a Class IV prefix in some dialects (*kundung*), though it has a Class II prefix in others (e.g. E:D *ngalbenbe*); in the mother-in-law register it is attested with both II and IV prefixes (*ngal-djarala* and *kun-djarala*). On the general tendency for 'sun' to be feminine in Australian languages see Harvey (1997).

VEGETABLE

The semantic focus of this gender is plants (e.g. *manekke ‡mandubang* 'that ironwood.tree', *manu ‡karrbarda* 'that cheeky.yam'). Note that this applies even when, as life-form terms, they take the Class IV prefix (see §5.5.2 above) (e.g. *‡kun-dulk manbu* 'that tree', *manngale kundulk* 'which tree' [KH 57], *manu kunkod* or *makkah kunkod* 'that paperbark tree' [KH 55], and to various Class IV terms for combustibles like *kun-rerrng* 'firewood' and *kun-djahkorl* 'firestick'). This gender extends to a number of items

transformed from plants in various ways — what might be called 'the great chain of vegetable matter':

- THEIR PRODUCTS, such as *manihmanu ‡birrkala* 'that boomerang' [KH 49], *makkamanu payp* 'that pipe' (though some traded products, such as 'tobacco', are masculine), *manrurrkdjokko* 'small hollow log' (Berndt 1951);

- VEGETABLE FOODS, such as *manbu ‡manme* 'this vegetable.food' [OM 38];

- EXCRETA, whose visible contents, at least after a few days in the sun, are predominantly plant fibre (e.g. *manekke ‡kurduk* 'that turd' [KH 155]);

- Some TYPES OF HONEY (transformed nectar), such as *‡man-kung manmekbe* 'that honey';

- BOATS, VEHICLES AND PLANES, the original boats being made of bark or hollowed wood (e.g. *manekke Macassan ‡kabbala* 'that Macassan boat', *manbu ‡manwelyi* 'that plane', *manu kungolwaken* 'that plane' [KH 149]);

- FIRE (burnt wood), such as *manekke ‡kunak* 'that fire, light' [KH 54] and *‡kunak manbu* 'that campfire' (Oates 1964:109), *mankare ‡kunak* 'old fire', *‡kunrerrng manekke* 'that firewood', *‡kundjahkorl manyahwurd dja mankimuk* 'large and small firesticks'.

Also in this category, though the links to the plant nexus are not clear, are:

- SEXUAL BODY PARTS, such as *‡manberd mankimuk* 'big penis' [KH 23], perhaps mediated by the widespread metaphor of sex as eating. This link is highly productive; Garde (1996:96) gives examples of applying vegetable agreement to animal body parts being butchered in order to generate obscenely amusing implications;

- ROADS (flattened or cut scrub?), such as *‡man-bolh manmekbe* 'that track';

- Terms for SONG, CEREMONY AND CUSTOMS carried out on particular occasions (e.g. *manbu ‡Ubarr* 'that Ubarr (hollow log) ceremony', *‡mankarre manu kurrih* 'that bluetongue lizard song' [KH 149], *makka yawkyawk ‡mankarre* 'that law (about) young girls', *manekke ‡kundjak* 'that sickness (in a context where it is being attributed to sorcery)' [KH 202]).

Among some speakers of Kunwinjku there is an extension of the vegetable gender into the semantic domain of the neuter. These extra vegetable categories will be discussed at the end of the section on neuter agreement.

NEUTER

This gender is focussed on parts, places and categories linked to them. The major subcategories are:

- Most BODY PARTS (i.e. all except sexual and excretory), such as *‡kunkodj/‡kundenge kunkimuk* 'big head/foot' [KH 18], *‡kundjak kundulmuk/kunwarre* 'heavy/bad pain'; also in contexts of edibility (e.g. *kunih ‡kunkanj* 'this meat/muscle' [KH 49]). This can include 'devils', when viewed as the spirit part of a (dead) person (e.g. *kunu ‡namarnde* 'that devil/ghost' [KS 212]); when viewed as free-standing entities these take masculine agreement as stated above;

- Most PARTS OF THE LANDSCAPE, such as *kuni ‡mabele kunwarre* 'this bad muddy.ground' [KH 52], *kunih ‡kunred* 'this is the place' [KH55], *kuni ngurridjowkke* 'that

[place where] you cross' [KH 59], *‡kunngarlk kunkuyeng* 'high cliff' [KH 92]. Note that *kukku* 'water' and its corresponding compounding root *bo-* take either neuter or vegetable agreement when viewed as part of the landscape (e.g. *kunekke kukku kunbokimuk* 'that big (body of) water' [KH 19] and *manbokimuk* 'big water, lake' [KH 71]), but vegetable agreement in contexts where it is viewed as something to drink (e.g. 'don't drink *that water!' (manih kukku)* [KH 29]);

- Most phenomena of WEATHER AND SEA, such as *‡kunmayorrk kunkimuk* 'big wind' [KH 65], *‡mabularr kunwarre* 'bad white.sea' [KH 71], *‡kundjarna kunkimuk* 'big waves' [KH 71];

- TIME MEASURES, such as *‡kunkodjke kunkudji* 'one night' (lit. 'one sleep') [KH 155], *‡kumunun kunu* 'that night';

- A few PARTS OF PLANTS in Class IV, such as *‡kunmarlaworr kunkudji* 'one leaf' [KH 159];

- LANGUAGE(S), AND OTHER PLACE-BASED SOCIAL INSTITUTIONS such as clans and clan designs (e.g. *kunbuyika* 'another (moiety design)' [KS 138], *‡kunwok kunbuyika* 'another language', *kunngey kunkerrnge* '(a) new name' (KS 260], *kunkudji ‡Balanda* 'only English' [OM 37], *kunu ‡djurra kadberre* 'this book of ours' [OM 35]. It is worth pointing out that in the regional ideology, languages, clans and the moieties and designs associated with them are all directly linked to tracts of country in the landscape (see Merlan 1982b);

- Linked to the above category, ABSTRACT NOUNS MORE GENERALLY, such as *kunrayek ‡kunngudj ngardduk* 'my hard efforts' [KS 260], *‡kunrak kunwarre* 'wrong marriage' [KH 171] (i.e. between people of the wrong category; note the metonymic extension of *kunrak* 'fire' to marriage here, based on the image of the couple sleeping by the one fire, and compare it with the vegetable agreement used with *kunrak* when this literally means 'fire').

Among many speakers of Kunwinjku (including some quite old people, such as Bobby Nganjmira), and among all younger speakers, there has been a migration of certain subcategories out of the neuter gender into the vegetable. These subcategories can be seen as extensions of foci that fall into the vegetable gender for all speakers. They include:

- LANDSCAPE FEATURES HAVING TO DO WITH WATER (metonymically linked to the food/fire nexus), such as *manekke ‡mankabo* 'that creek' [KS 178], *mahni ‡manlabbarl* 'that billabong', *‡kunkurlk manbu* 'that soft.ground' [KS 174], *‡kunkih manekke* 'that mud';

- Other types of NON-FLESH FOOD AND DRINK (and note that the closest to a generic term for 'food', *manme*, has vegetable food as its semantic focus), such as *manbu Saki ‡kunbang* 'that Saki drink';

- Items in the 'CAMP' SEMANTIC DOMAIN, most of which are Class IV. This extends to parts of the humanised landscape used as dwellings and shelters, such as rocks in the context of rock caves (*manbu ‡kunwardde* 'that rock (cave)'), as well as implements used in camp or when gathering vegetable foods, such as *manih ‡kunkaninj ‡kunmadj* 'that firestick and swag', *‡kunmadj manekke boken* 'those two swags' (Carroll 1976:95). The extension to the 'camp' nexus is probably motivated by the original vegetable class

membership of 'fire' (see above), while that to vegetable-gathering implements is motivated by metonymic association;

- Some BODY PARTS, such as ‡*kundjen mankuyeng* 'long tongue', *manbu ‡kunmurrng kunj* 'those kangaroo bones'. It is not clear if there is any semantic commonality to the body parts which do this, though many such crossovers may be contextual, for example ‡*kundjen mankuyeng* 'long (VEG) tongue' was used in the context of describing how a being uses its long tongue to lick honey out of a nest.

In Gun-djeihmi, as stated above, the vegetable and neuter genders have simply been merged in favour of the vegetable. As a result vegetable agreement is used not only with entities such as *gun-rurrk* 'shelter' (5.247) and *gun-barlkbu* 'digging stick' (5.248), which would attract vegetable agreement for younger Kunwinjku speakers and neuter for older, but also for nouns that Kunwinjku speakers of all ages accord neuter agreement to, such as time expressions like *djandi* 'week' (5.249) and language items like *gun-wok* 'language, talk' (5.250).

5.247 *Ngan-ege gurrambalk, yiga gun-rurrk an-mak, djalbonj an-ege*
Dj   VE-that   house   maybe   IV-shelter   VE-good   enough   VE-that

a-yolyolme-ng.
1-tell-PP
'That house, maybe it's a good shelter. Enough, that's what I've talked about.'

5.248 *Gun-barlkbu   an-ege   bi-rrerlme-ng.*
Dj   IV-digging.stick   VE-that   3/3hP-throw-PP
'She threw that digging stick at him.'

5.249 *Ga-bawo-n   galuk ga-re,   djandi,   an-gudji.*
Dj   3/3-leave-NP   then   3-goNP   week   VE-one
'He leaves it while one week goes by.'

5.250 *Djalbonj   ngan-ege gun-wok   nga-yolyolme bolkgime.*
Dj   finished   VE-that   IV-talk   1-tellNP   now
'That's all I'll say now.'

5.5.3.2 *Masculine vs feminine for animate nouns*

We now return to the problem of deciding how to assign animate nouns to masculine or feminine, which is the largest domain of unpredictability and arbitrariness in the system.

For humans the system is clear: masculine if male (*namekke ‡marrkkidjbu* 'that sorcerer'), feminine if female (*ngalkudji ‡daluk* 'one woman'), though with young babies the gender will often not be focussed on and will default to masculine, and once females are in the plural they receive masculine agreement under the plural rule (see §5.5.4.2 below). Beings such as deities and malignant spirits behave similarly, although their sex is not always obvious and in such cases masculine agreement is the default.

For most macropods the basic lexical field is a 'male:female:child' triplet, as in *karndakidj* 'male antilopine wallaroo', *karndayh* 'female antilopine wallaroo', *djumbuk* 'juvenile antilopine wallaroo' (these are the Kuninjku terms). Some species have a fourth term for referring to a particularly large male adult specimen; in this case, for example, there

is the term *kalaba* 'large male antilopine wallaroo'. Within such sets, the female term (here *karndayh*) is feminine, while the remainder are masculine.

For other animates the lexicon virtually never distinguishes sex. *Dalkken*, for example, refers to dingos of either sex, *nganabbarru* a buffalo of either sex, and *kuluban* a flying-fox of either sex. All such animates have a conventionalised gender that is either masculine or feminine, as in ‡*karnamarr nakimuk* 'large red-tailed.black.cockatoo' (masc), ‡*ngarradj ngalkimuk* 'large white cockatoo' (fem). If the animate is sufficiently large or otherwise salient that its actual biological sex is of interest, it is possible to override the conventionalised gender by using modifiers appropriate to the biological sex; this is discussed in §5.5.4.1. Elsewhere modifiers are chosen simply on the basis of the arbitrarily specified grammatical gender.

Table 5.6 exemplifies the split in gender between masculine and feminine for a sample of birds, snakes and fish:

Table 5.6: Gender in selected bird, snake and fish terms

Masculine		Feminine	
kalarrwirdwird	'white ibis; straw-necked ibis'	*ngalkurndurr*	'white egret'
		ngarradj	'white cockatoo'
karnamarr	'red-tailed black cockatoo'	*kaldurrk*	'kookaburra'
djikirridj-djikirridj	'willy wagtail'	*djornhdjorndok*	'Indian turtledove'
mukmuk	'tawny frogmouth' 'boobook; barn owl'	*manimunak*	'magpie goose'
makkakkurr	'pelican'		
namu(ng)	'black snake'	*maddjurn*	'black-headed python'
djenbedjek	'mulga snake'	*djokbinj*	'brown rock python'
kurukadji	'brown snake'	*berek*	'death adder'
barndol	'carpet python'	*kedjebe*	'file snake (mostly collected by women)'
nawaran	'Oenpelli python'	*borlokko*	'yellow-bellied water snake'
wamba	'shark'	*kurrukabal*	'long tom'
namarnkorl	'barramundi'	*manmakkawarri*	'lesser salmon catfish'
dangwalah	'pearl perch, bass'	*kuwalili*	'mullet'
karlarrk	'bream'	*madjabbarr*	'rough-scaled mullet'

It is doubtful whether clear general principles can be formulated to predict the gender membership of nouns in these semantic fields. In the case of birds, for example, Hale (1959:132) in his unpublished Kunwinjku fieldnotes suggests the distinction is one between 'large or well-known' (masc) vs 'small' (fem), but this is not always easy to apply, nor always true. For example, emu and brolga are both large and well-known, but feminine, while the willy-wagtail is small but masculine; the questions of whether it is masculine because it is 'well known' illustrates the difficulty of applying these criteria rigorously. Certainly there are principles that apply in particular cases: the 'emu', in myth, is always an old woman (see

Texts 1–02),[14] and the *ngakngak* 'pied butcherbird', for example, is probably masculine through its role in certain male ceremonies, but such cases are a distinct minority. Within the snakes, Heath (1984) has suggested that pythons are assigned to the feminine noun class (in Nunggubuyu) because of the sexual symbolism of swallowing, and certainly the majority of Bininj Gun-wok python terms are feminine, but there are exceptions, such as the carpet python and the Oenpelli python, both masculine. For the fish we have no explanations at all.

There are other isolated cases, such as the echidna (feminine) and flying foxes (masculine), where the gender rules in Bininj Gun-wok form part of widespread trends throughout Australia, perhaps based on symbolisations of salient external facts, namely the oozing milk from female echidnas (the only monotremes in Arnhem Land) and the prominent circumcised-looking penises of male flying foxes. Again, though, these form only a minority of cases.

Table 5.7: Possible combinations of gender and noun class

Gender	Noun class				
	I	II	III	IV	V
Masculine	congruent	Exceptions: [biological sex; plural contexts]	A few lexically specified exceptions: *man-djewk* 'rain', *man-kung* 'honey', *man-djawok* 'katydid' [Also: plural contexts]	Many cases, e.g. many implement terms; *kun-waral* 'spirit' [Also: plural contexts]	Many cases (commonest pattern for animate masculine nouns)
Feminine	Exception: [biological sex]	congruent		One exception: *kun-dung* 'sun'	Many cases (commonest pattern for animate feminine nouns)
Vegetable	[15]	[16]	congruent	Many categories	Some cases (occasional pattern for vegetable nouns)
Neuter	[17]			congruent	Some cases (occasional pattern for neuter nouns)

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14 The position of the emu in systems of grammatical and cultural classification has been widely discussed: see Harvey (1997) on its noun-class membership in northern Australia, and Maddock (1975) on its status in myth.

15 I do not include the plant name *namarndengabek* 'plant species whose leaves are said to resemble a devil's hair', which is vegetable gender and could be argued to have a *na-* prefix, on the grounds that the *na-* prefix is part of the first compounding element (*namarnde* 'devil') rather than being attached to the compound as a whole.

16 It is likely that the term *ngal-yurr*, when used in its botanical sense of '*pityrodia jamesii; cleome viscosa*' rather than its entomological sense of 'Leichhardt's grasshopper', would take vegetable agreement; this is a rare example of a metonymic extension of an insect term (motivating the *ngal-* prefix) into the botanical domain.

17 Sole exception: *namarnde* 'devil' is attested once with the demonstrative *kunu* 'NEU-that', presumably construed here as a body part (i.e. ghost, spirit).

5.5.3.3 Degree of congruence of noun-class and gender systems

Having discussed membership of both the noun classes and genders, it is time to review the extent to which these two formally and semantically similar systems overlap. A matrix showing the correlations between them in the Kunwinjku dialect is given in Table 5.7. Dark shaded areas are unattested and pale shaded areas are attested only with a very few lexemes under highly specifiable conditions, whereas unshaded cells are amply populated. The unshaded cells down the diagonal represent the congruent cases, where the overt forms for gender and noun class match, and the unshaded cells in the right-hand column result from the compatibility of the fifth, unprefixed class with all genders.

Feminine agreement with Class I nouns, and masculine agreement with Class II nouns occur in limited and syntactically specifiable contexts: feminine nouns allow masculine agreement in plurals (§5.5.4.2) and crossover in either direction can occur when the biological sex of a particular referent does not coincide with its conventional gender (§5.5.4.1).

Masculine agreement with Class III nouns, apart from plural contexts, is confined to a few cases that need to be lexically specified: *man-djewk* 'rain', *man-kung* 'honey' (optional, so that it also allows vegetable agreement, and consistent with the masculine gender of many honey terms) and *man-djawok* 'katydid grasshopper', a metonymic extension of a plant term to an associated animal, with retention of noun class III but adoption of the default masculine gender.

Turning now to the cells with substantial populations, they fall into three categories:

(a)   The four 'congruent' cells, in which the gender and noun class match formally, such as *naworneng* 'joker at ceremony' (masculine), *ngalyod* 'rainbow serpent', who is usually mythologically female (feminine), *man-dubang* 'ironwood tree' (vegetable) and *kunngey* 'name' (neuter). For most types of noun with inanimate referents, for example nouns denoting plants and body parts, the default situation is for them to be in the appropriate one of these cells. For animates, on the other hand, this is the second rather than the first choice, since animates normally take no overt prefixation, going into Class V but with the semantically appropriate gender. However, going into the congruent cell is then the second preference for this group.

(b)   The four cells with Class V nouns. For animates, which normally eschew overt prefixation, as well as for implement terms, these are the default cells: zero prefixation, plus the semantically appropriate gender. For most inanimates, which prefer overt prefixation, these are the second choice in a way that mirrors the congruent cells as the second choice for animates.

(c)   The two cells in which Class IV nouns belong to one of the two unmarked genders (i.e. masculine or vegetable).

   For masculine Class IV nouns, this can reflect either the use of masculine gender for many implement and painting terms, as with *kun-rodjbe* 'red ochre' (MA), or alternate gender assignments on the basis of different semantic principles, as with *kun-waral* 'spirit', assigned to Class IV by the body-part principle, and to Class I by the animate (or more specifically by the malevolent animate) principle.

   For vegetable Class IV nouns, the situation is more complex. For many, their assignment results from the play of two semantic principles, one in the domain of gender and one in the domain of noun class. Examples are the assignment of *kun-dulk* 'tree' to Class IV by the 'plant life-form principle', and to the vegetable gender by the

general plant principle, or the assignment of *kun-rak* 'fire' to Class IV by the 'domestic fire' principle, and to the vegetable gender by the 'general fire' principle. For others, there is a good deal of contextual variation and inter-speaker variation, reflecting the gradual migration of Class IV nouns into the vegetable gender. In a case where *kun-wardde* 'rock' manifests vegetable agreement, for example, this can be attributed to the extended principle by which terms for camp and habitable places go in the vegetable gender, and a construal of a rock shelter as belonging to this semantic category, at least in some discourse settings.

5.5.4 Problems of agreement

We now pass to a number of situations where gender agreement does not follow from the gender of the lexeme, as outlined in the preceding section: cases where biological agreement overrides the lexically specified gender, and generalisation of the masculine in plural and other quantifying contexts, as well as with presentationals.

5.5.4.1 Agreement based on biological sex

Nouns whose lexical meaning includes specification of sex take the expected gender agreement: thus ‡*bininj namak* 'good/handsome man', *ngalege* ‡*daluk algimuk* 'that big woman', *ngalkudji* ‡*djukerre* 'one female black wallaroo'.

Agreement based on sex, but not following from the lexical head, arises in two types of case.

The first is with the small group of nouns for humans which lack a noun-class prefix, and which are not specified for sex; modifiers of these take whichever gender is appropriate in the circumstances, as in I *ngalkka* ‡*balanda ngalmak* 'that good/beautiful white.person (woman)' vs *nakka* ‡*balanda namak* 'that good/handsome white person (man)', and *ngalkka* ‡*mararradj ngalmak* 'that good/beautiful lover (woman)' vs *nakka* ‡*mararradj namak* 'that good/handsome lover (man)'.

The second arises in the names of animates and some spirits. Sometimes these lack a noun-class prefix and are unspecified for gender (e.g. Dj *djorrkgun* 'rock ringtail possum'); if the sex is being focussed on, this may take whichever gender is appropriate (e.g. ‡*djorrkgun ngalgimuk* 'large ringtail.possum'). In other cases the noun has a class prefix congruent with a particular gender, but in cases where the sex is of particular interest, gender will be determined not by the noun class but by the actual sex of the referent. Thus *na-garndegin* 'dingo' and *na-marnde* 'devil, evil spirit' take the Class I prefix in Gun-djeihmi, and in circumstances where their sex is not at issue, will take the congruent masculine gender; but the biologically appropriate gender may be used on modifiers when this is being focussed on:

5.251 *na-garndegin na-rangem / al-daluk*
Dj   I-dingo   MA-male   FE-female
       'male/female dingo'

5.252 *na-marnde na-mege / al-ege*
Dj   I-evil.spirit MA-that   FE-that
       'that male/female evil spirit'

Conversely, other names of animals and spirits are in Class II and normally take feminine agreement, but sex-based agreement is possible, as in the following:

5.253   *al-makkawarri*   *na-mak* / *al-mak*
Dj   II-lesser.salmon.catfish   MA-good   FE-good
         'that good male/female lesser salmon catfish'

5.254   *Al-wanjdjuk gabani-larlma-rr-en, **al-wanjdjuk al-bininjgobeng** ga-ma-ng*
Dj   II-emu   3ua-divorce-RR-NP   II-emu   II-spouse   3/3-marry-NP

         na-buyiga bininj al-wanjdjuk ... wanjh   nungan-wali   na-bininjgobeng
         MA-other   man   II-emu   then   3mascEMPH-in.turn   I-spouse

         ga-ma-ng   ngal-buyiga daluk   al-wanjdjuk.
         3/3-marry-NP   FE-other   woman   II-emu
         'When emus divorce, the wife emu marries another male emu ... And the husband, for his part, marries another female emu.'

5.255   *Ngal-kunburriyaymi na-rangem*
I   II-mermaid.spirit   MA-male
         'male mermaid spirit' (In Kune such male mermaids are instead referred to by substituting the Class I prefix, i.e. *nakunburriyaymi*.)

5.5.4.2 Plural and other quantifying contexts

In all dialects, certain types of quantified phrases display masculine agreement regardless of the gender of the head. (Because it is typologically common for masculine plural to be used as the plural for all genders, it is worth emphasising here that this is not the Bininj Gun-wok situation, since the prefix *na-* is simply masculine; there is no reason to consider it a plural morpheme, though as discussed it occurs in plural contexts.) The exact conditions vary from dialect to dialect, in terms of the quantifiers involved and the degree to which neutralisation to masculine is obligatory. Overall the phenomenon has gone furthest in Gun-djeihmi, and is related to the fact that modifiers do not normally take non-minimal pronominal prefixes in that dialect, so that where Kunwinjku and Kuninjku have *birrimekbe* and *birrimekke* 'those (pl)' with third augmented prefix *birri-*, Gun-djeihmi would simply use the masculine form *namekke*. The conditions for each are summarised in Table 5.8.

Table 5.8: Quantifying contexts in which masculine agreement is extended

Pluralising modifiers	
Plural demonstratives	W (optional), I (optional) Dj (obligatory)
-wern 'many'	Dj (obligatory)
boken 'two'	W (optional), Dj (obligatory)
Other quantifier-type modifiers	
-barrkid '(an)other'	I (optional)
-kimuk 'big, much (with mass nouns)'	W (optional)
-kudji 'one'	Dj (optional)

We now turn to these various contexts in more detail.

PLURAL CONTEXTS Plurality may be expressed in a number of ways (see §6.2.1): operations on the head noun, such as full or partial reduplication; specific number words such as plural demonstratives, numerals or the plural adjective *-wern* 'many'; signalling of number on the verb through pronominal or quantifying prefixes or simply by context.

In Kunwinjku, Kuninjku and Kune non-minimal pronominal prefixes are commonly combined with adjectival and demonstrative roots to signal plurality (e.g. W *birri-mekbe* 'those', I *daluk boken bene-mekke* 'those two women'). In Gun-djeihmi, however, this option is not employed and such modifiers are simply prefixed with the masculine (e.g. *namekke* 'that, those').

In Kunwinjku, also, there are examples of the generalised use of the masculine with plurals. A particularly revealing Kunwinjku text, told by Sam Manggudja Ganaray (included in Carroll 1975) is 5.256, which is a translation[18] of the relevant parts of this text, with the Kunwinjku demonstratives in square brackets.

5.256 a. Long ago they used to tell us this story.
   b. They used to tell us about this [*ngalbu*] woman
   c. they were giving to a man.
   d. That [*ngal-mekbe*] woman did not want him, she did not want him,
   e. She was afraid of him.
   f. This happened long ago, when they did those things.
   g. They used to paint them,
   h. then those [*naninjanu*] two women were frightened of those [*namekbe*] two men.
   i. They went and got, they dug and they got some (cheeky) yam.
   j. They went and crushed it, they mixed white ochre and cheeky yam,
   k. Then they went and they painted the women on the rock.
   l. They said: let us paint those [*na-wu*] two women, they are afraid of us.
   m. Then they went, they painted in a cave,
   n. they painted those [*na-hni*] two women, they gave them big knees,
   o. they gave them big feet, they gave them birds' beaks (for noses),
   p. they gave them big elbows.
   q. They said let us try and see, maybe we can kill them.
   r. Then they painted them, they finished the painting,
   s. then they went, they went then, they were watching them,
   t. they were wondering, when will they get leprosy.
   u. They went then and many years passed and they watched them,
   v. and already those [*na-mekbe*] two women had got leprosy.
   w. They said, it's true we have hurt them.
   x. Then they went, their leprosy got worse, they went,
   y. Then those [*na-mekbe*] two women died.
   z. Many used to do this then, to those [*nawu*] (girls) who were afraid of them.
   zz. They were frightened, this [*ngal-bu*] woman was frightened.

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[18] I have slightly modified Carroll's translation towards a more literal one, by inserting demonstratives in the English where his freer translation lacks them.

As the narrative moves back and forth between a single woman and a pair of women, the single woman is always represented by a feminine-prefixed demonstrative (*ngal-bu* or *ngal-mekbe*), as in lines b, d and zz, while the pair of women is always represented by a masculine-prefixed demonstrative (*na-ninjanju*, *na-hni* or *na-wu*), as in lines h, l, n, v and y.

I turn now to some specific examples of the use of the masculine in various types of plural construction. First consider plurality shown by reduplication:

5.257   *Na-meke dah-daluk   birri-gih-gimuk.*
W   MA-that   REDUP-woman   3aP-REDUP-big
         'Those women are big.' [KH 33]

5.258   *Na-ngale-ngale bene-bogen na-nhni   daluk-daluk?*
W   MA-who-who   3ua-two   MA-this.here REDUP-woman
         'Who are these two women?' [KH 34]

Now consider the various plural demonstratives. We already saw the use of *naninjanu* [MA-those] with 'two women' in line h of 5.256. A Gun-djeihmi example with the plural demonstrative *namegebu* modifying a feminine is 5.259; see also 7.164 for an example with it modifying Class IV body parts.

5.259   *Bininj bandi-h-worrum-bokka-rr-eni,   barri-djare-ni   na-megebu   daluk.*
Dj   man   3a/3pl-IMM-around-track-RR-PI   3a-want-PI   MA-those   woman
         'Men were following them around, they desired those women.'

Occasionally, plural demonstratives in Kunwinjku take agreement with some other gender in Kunwinjku. An example is Hale's (1959) recording of the Curlew and Snake myth, which contains the sentence *kunekkebu* [IV:those] *kun-mud* [IV-feather] *kandi-wo!* 'Give me those feathers!' Certainly the existence of plural demonstratives in all classes suggests that normal class agreement with plurals was once more widespread, but has gradually been replaced by the masculine-agreement rule. The plural modifiers with other class prefixes have accrued rather specialised meanings that remove them from the realm of pure agreement (e.g. Dj *anegebu* 'all that stuff (esp. actions)' discussed in §7.3.1.1, and W, I *kun-wern* 'many times; often').

Masculine prefixation of the root *-wern* 'many' with plurals of any gender is the norm in Gun-djeihmi (e.g. ‡*daluk nawern* 'lots of women'), although in the absence of a head noun the vegetable form *an-wern* is often used to mean 'lots of food'. In Kunwinjku it is more common to use a non-singular pronominal prefix (e.g. *daluk birri-wern* [woman they-many] 'many women'), but standard agreement is still used with inanimates: Oates (1964:64) gives the example *man-wern man-me* 'much food' and the Nganjmira texts (Nganjmira 1997:122) include examples like *kun-wern kun-kodjke* 'many nights'. In Kuninjku masculine prefixation in plural contexts is an option (5.260) but prefixation of the appropriate gender is also common (5.261, 5.262), as is the use of a nonminimal pronominal prefix (5.263) and the lexicalised use of *kunwern* to mean 'many times, often' (5.264).

5.260   *Na-wern   djarduk   ø-ngu-neng kure kaddum ø-barndi.*
I   MA-many   red.apple   3/3P-eat-PP LOC high   3P-be.highPI
         'He ate many red apples while he was up (in the tree).'

5.261   *Kun-derbi   man-wern ka-karrme.*
I   IV-triangular.kin.terms   VE-many   3/3-haveNP
         'There are many terms in triangular kinship.' [GID]

5.262   *Darwin man-wern murrikang ka-rlobmerlobme.*
I   VE-many car   3-ITER-runNP
        'In Darwin there are many cars running around.' [GID]

5.263   *Kakkawarr kaben-ma-ng   birri-wern bininj.*
I   messenger   3/3pl-bring-NP 3a-many   person
        'The messenger will bring many people.' [GID]

5.264   *Kun-wern   ø-wungme-ng   ø-bulkkidjma-rr-inj.*
I   NEU-many   3P-smoke-PP   3P-cause.serious.illness-RR-PP
        'He smoked too much and made himself seriously ill.' [GID]

OTHER QUANTIFIER-LIKE CONTEXTS While the above constructions, which are found across all dialects, involve various types of pluralising quantifier, some dialects have particular extensions of masculine agreement to other modifiers, all pertaining to enumeration.

Kuninjku has extended masculine agreement to *-barrkid* 'different':[19]

5.265   *Bene-dolkka-ng yawoyhno bene-djowkke-ng kabo-no   na-barrkid.*
I   3uaP-get.up-PP again   3uaP-cross-PP   creek-its MA-different
        'They set off again and crossed a different creek.'

Gun-djeihmi allows the modifier *-gudji* 'one' to take either feminine or masculine agreement with feminine heads: for 'one woman' either *daluk ngal-gudji* or *daluk na-gudji* is possible. Carroll's Kunwinjku corpus includes the following example of 'one' modifying a feminine noun but taking a feminine prefix:

5.266   *na-kudji   ngal-mangeyi*
W   MA-one   II-turtle
        'one turtle' [PC 97]
        [cf. *ngalmangeyi ngalyahwurd* '(a) small turtle' and *ngalmangeyi ngalka
        ngalkomkuyeng* 'that long-necked turtle', with regular feminine agreement,
        cited on the same page.]

There are some Kunwinjku examples suggesting that the root *-kimuk* 'big', which can have the meaning 'big mob of, lots of' when used with mass nouns, can display masculine superclassing in this plural-like context, for example:

5.267   *na-kimuk   kun-madj   kabirri-bawo-n*
W   MA-big   IV-swag   3a/3-leave-NP
        'they leave a big mob of swags'

5.5.4.3 Presentational contexts

Occasionally the presentational demonstrative *na(h)ni* 'this one here (which I present to you now)' generalises masculine agreement. Example 5.268 is one of several clear cases from Gun-djeihmi; 5.269, from Kunwinjku, is less clear given that Carroll (1976:97) claims *ngal-mangeyi* governs masculine agreement, and certainly there are many cases in Kunwinjku of this demonstrative series agreeing in gender with its head (see §7.3).

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[19]   Though it uses the pronominally prefixed form *birri-barrkid* to mean 'foreigners, they who are different'.

5.268   *Na-hni   gun-dulk a-garrme.*
Dj   MA-this.here IV-tree   1/3-holdNP
         'I'm holding this tree here.'

5.269   *Bi-na-ng   na-ni   na-wu   ngal-mangeyi.*
W   3/3P-see-PP   MA-DEM   MA-REL   II-turtle
         'He saw something that (was) a turtle.' [PC 97]

The use of the unmarked, masculine option before the referent is named (and thereby assigned a noun class) is remininiscent of what Heath (1984:169) reports with regard to the dropping of noun-class prefixes in Nunggubuyu: 'presence of (continuous) prefix is correlated with definiteness or givenness, and its absence is correlated with focus and foregrounding'.

5.5.4.4 *With the relative demonstrative*

The preceding two sections have shown that not all modifiers manifest gender agreement to the same degree: certain quantifiers, and presentational demonstratives, frequently generalise masculine agreement to other genders, while adjectives such as 'good' and 'bad', and other demonstratives such as the *-mekbe/-mekke* and *-kka* sets (see §7.3.2) always have regular gender agreement. Significantly, the demonstratives that have regular gender agreement are those that can be used pronominally as well as adnominally, making the extra semantic resolution accorded by the gender prefix useful in working out the reference, whereas the presentational demonstratives are not used pronominally and their reference is usually clarified by a gesture.

A second demonstrative series that often relaxes gender agreement, at least in some dialects, is the 'relative' series (see §7.3.1.2), whose masculine form *na-wu* can, commonly in Gun-djeihmi and Kuninjku and more occasionally in Kunwinjku, be used with referents of all genders. Again this demonstrative is mostly used adnominally rather than pronominally, so that its reference can be determined locally from the noun to which it is adjacent (5.270–5.272; also 5.85) or, where it is used as a relative pronoun, from the adjacent verb (5.273).

5.270   *Djerrh   na-wu   man-djamun kun-djak-kenh ka-karrme.*
I   small.dilly.bag MA-REL   VE-sacred   IV-illness-GEN 3-haveNP
         'That small dilly bag (we call) *djerrh* is sacred, it has the power to cause illness.'
         (*djerrh* is vegetable gender) [GID]

5.271   *Na-wu   djidjerok,   man-kod   man-mak, la   man-birdubirdu*
I   MA-REL   water.under.bark III-melaleuca VE-good   CONJ   III-[melaleuca.sp.]

         man-bah-bang.
         VE-REDUP-cheeky
         'With the water tree Melaleucas, the large tea trees are drinkable but the water
         from the *man-birdubirdu* Melaleucas is foul.' [GID]

5.272   *Yi-bengka-n kun-red   na-wu   karri-wam   karri-na-ng kinga?*
I   2-know-NP   IV-place MA-REL   12a-goPP   12a-see-PP   crocodile
         'Do you know that place where we saw the crocodile?' [GID]

5.273 *ø-djordoh-djordm-inj na-wu   ngarri-dudj-i.*
I   3P-EXT-grow-PP   MA-REL   1a/3-plant-PP
    'The ones we planted have all grown up.' [GID]

Nonetheless, the relative demonstratives are often used with the expected agreement, particularly when the head is feminine (5.274), and in the rare cases that they are used pronominally, with no head (5.275).

5.274 *Wanjh ø-wam Mehme   ngal-bu ku-kurlk Mehme-bukka*
I   then   3P-goPP [name]   FE-REL LOC-dirt [name]-eh

    Mehme   ngal-yahwurd djiribidj djiribidj ngal-bu. Yoh.
    [name] FE-small   quail   quail   FE-REL yes
    '"I'm *Mehme* here, here I stay on the ground." Then Mehme went away,
    the one that lives on the ground. That Mehme, the little one, she's also called
    djiribidj.' [GID]

5.275 *Yo   birri-do-y   man-dudjmi. Ya   birri-ka-ng   kondanj*
I   yes 3a/3P-strike-PP III-green.plum yeah 3a/3P-take-PP   here

    Dabbarrabbolk wanjh   ngandi-bukka-ng ngadberre wanjh
    old.people   then   3a/1a-show-PP   1aOBL   then

    ngarri-h-do-y   man-ih   man-bu   kun-wardde
    1a/3-IMM-strike-PP VE-DEM   VE-REL   IV-rock
    'Yes, they used to pound the green plums. The old old people used to take them
    here and they showed us and we pounded up that *Buchanania obovata* fruit.'

5.6 Deverbal nominals

Deverbal nominals can be formed in two ways:

(a) The verb stem, either gerundivised or inflected for a suitable TAM category, is prefixed directly with a gender or noun-class marker, without pronominal argument prefixes. In the case of resultatives it may be further suffixed by the genitive. Their essential formal feature is that the verb stem is directly prefixed with a marker normally restricted to nominal stems, and I shall therefore refer to them as fully deverbal nominals. This method is used for abstracts, single instances of an action, and resultatives. It also includes the use of verb roots, inflected for the past perfective (or, more rarely, the incorporated verb form), as adjectives which then take agreement morphology.

(b) A fully inflected verb is used directly as a nominal. Either there is no formal marking of the conversion, or a noun-class prefix is added to the fully inflected verb; the essential formal feature of this kind of deverbal nominal is that it still bears characteristically verbal pronominal prefixes and I shall refer to this type as partially deverbal nominals. This method is used for agent nominalisations, kin terms based on characteristic actions or events, and names of cultural practices. It is essentially a lexicalisation of the potential of fully inflected verbs to be used as headless relative clauses, via conversions like 'they look at each other' to 'they who look at each other'

(see §14.3). The relative demonstrative normally used in such constructions becomes less obligatory the more they are lexicalised.

We now examine each of these types in detail.

5.6.1 *Fully deverbal nominals*

There are three types of these: abstract and event nouns with a Class IV prefix on an inflected form of the verb (usually the non-past), deverbal nominals which replace the verb thematic with *-mi* and add a noun-class prefix, and deverbal adjectives which employ the past perfective form of the verb.

5.6.1.1 *Abstract and event nouns with Class IV prefix*

A number of nominals denoting abstract qualities or individual events are formed by prefixing the Class IV marker *gun-/kun-* directly to the verb stem. This is commonest in Kunwinjku, possibly due to the neologising influence of Bible translations on this dialect. Some examples adapted from Oates (1964:35) are:

5.276	*kun-njirrke*	*kun-bekka-n*	*kun-belewon*
W	IV-blackenNP	IV-hear-NP	IV-whitenNP
	'hatred'	'hearing'	'whiteness'
	kun-bayeng	*kun-bunjhman*	*kun-berrebbun*
	IV-bitePP	IV-kiss?	IV-promiseNP
	'a bite'	'a kiss'	'a promise'

Oates claims such nominalisations are always based on the 'present tense form of the verb'. While this is mostly true, her examples, as cited above, include one based on the past perfective form (-*bayeng*) and one which does not occur in any TAM category (*bunjma*), the nearest candidates being NP *bunjmang* and imperative *bunjma*. A comparable irregularity is found with the form *ka-lobmen* 'good runner', which has an *n* not found in the non-past form for that conjugation.

However, examples are also found in other dialects:

5.277	a.	*gun-mikme*
Dj		IV-avoid
		'respect or avoidance register' (syn. *ngarrimikme*)
	b.	*kun-yeme*
I		IV-be.afraid/ashamedNP
		'fear, shame'

The use of the Class IV prefix with deverbal abstract nouns is clearly related to its use in deriving abstracts from adjectives (e.g. *kun-mak* 'goodness' < *-mak* 'good', *kun-warre* 'badness, something bad' < *-warre* 'bad'; see §5.5), and with abstract property nouns derived from verbs by adding the property suffix *-miken* (§5.3.1.3).

5.6.1.2 Deverbal nominals in -mi

The suffix *-mi* appears in a handful of clearly deverbal formations, and in a much larger set of nouns for which a verbal origin is plausible but no agnate verb stem is attested. These formations occur with a range of noun-class prefixes, including ∅. Note that *-mi* is also the commonest allomorph of the incorporating verb form (IVF) suffix used to adapt verbs for incorporation into other verbs (see §12.1) and the past imperfective form of *-me* verbs (§9.2).

A rare deverbal use of this suffix with a verb well attested elsewhere is the form *na-djird-mi-wern* 'thief', in which the verb *djirdmang* 'steal, pinch' has been deverbalised to *djirdmi*, prefixed with noun Class I marker *na-*, and suffixed with *-wern* 'plenty', as in:

5.278	*Warrkdjird*	*na-djird-mi-wern.*
Dj	butcher.bird	I-steal-DV-many
	'The pied butcher bird is a thief.'	

A commoner use is in deriving names for varieties of Bininj Gun-wok, e.g. *Kun-dangyohmi* (Kunwinjku, as known by speakers of other dialects), *Gun-dedjnjenghmi* and *Gun-djeihmi*. The degree to which these names are etymologically transparent varies considerably: the first is based on the verb *dang-yoh-me* 'talk *yoh*-language (Kunwinjku)', based on the word *yoh* for 'yes', and the second on a characteristic particle *dednjengh* used by speakers of this dialect (see §1.2.3 for further information on these two names). No etymology for *Gun-djeihmi* has yet been found.

The language-naming function, in turn, is part of a broader use of *-mi* to derive names for kinds of sound, or entities or places associated with particular types of sound, suggesting the general deverbal meaning '(thing/place) associated with making the sound X / with going X'. A clear example is the place name *Binghbinghmi* 'Graveside Gorge', derived from *binghme* 'make clicking sounds'. The Kuninjku noun *kun-ngoyngoymi* means 'water splashing down a water course', though without a corresponding verb of sound production.

A number of animal names could plausibly be based on verbs of sound production, such as Dj *belganghmi* 'tree frog', *ngal-godjorrhmi* 'black hen', *gudjurrumi* 'gutsache bird (calls out like it has a gut-ache)', *na-genjhmi/na-gerdmi* 'bream' (cf. *genj-genj* 'pulse').

Finally, there are a couple of non-acoustic adjectives in Gun-djeihmi which apparently have a frozen form of this suffix, though again without the putative root being attested elsewhere: *na-yuihmi* 'full (of moon)' and *gun-galngyohmi* 'wet'.

5.6.1.3 Deverbal adjectives in -meng

A number of adjectives, particularly of colour but also of content, are formally equivalent to the past perfective form of verbs in *-me*. In many cases there are corresponding verbs with related meanings (though usually in another dialect), so that 'black' is etymologically 'loomed', 'white' is etymologically 'glistened' and 'full' is 'overflowed'. These deverbal adjectives are most numerous in Kune, and their synonyms in the other dialects are usually underived adjectives; thus in Dj 'black' is the underived adjective *-gurduk* as against E *-ngurlmeng*, and 'white' the underived adjective *-bele* as against E *-barmeng*. The adjectival versions combine directly with gender prefixes and cannot vary the tense suffix, whereas the verbs take subject prefixes and can vary the tense suffix. Example (5.279) compares the verbal and adjectival uses of the same root in two dialects: in Kuninjku *ngurlme* is a verb

meaning 'appear as a dark shape' (cf. its PP form *ngurlmeng* 'appeared as a dark shape')
while *ngurlmeng* is a Kune adjective meaning 'black'.

5.279 a.   *Nganabbarru   ku-kak   ka-m-ngurlme-ng.*
I   buffalo   LOC-night   3-hither-loom.dark-PP
           'A buffalo came in the darkness last night.' [GID]

      b   *Ka-m-ngurlme   man-djewk.*
I   3-hither-loom.darkNP   III-rain
           'The storm is looming dark towards us.'

5.280   *kurlbbinj na-ngurlmeng*
E:N   anthill   MA-black
           'dark-coloured anthill'

Example 5.281 illustrates a similar comparison between Dj *barlme*, a verb meaning 'be full,
overflow' while *barlmeng* is a Kune adjective meaning 'full':

5.281 a.   *Banigin   na-behne ga-bo-gimuk   ga-barlme.*
Dj   cup   MA-DEM 3-liquid-big   3-overflowNP
           'That cup is full to overflowing.'

      b.   *Ba-bo-barlme-ng   an-djeuk na-gimuk.*
Dj   3P-liquid-overflow-PP   III-rain MA-big
           '(The tank) overflowed because of the rain.'

      c.   *banikin na-barlmeng*
E:D   cup   MA-full
           'full cup'; 'the cup is full'

Further examples are E *barmeng* 'white', corresponding to the past perfective of *bame* 'shine,
glisten' in other dialects, and E *ngerrmeng* 'red', with no obvious cognate but belonging to
this formal pattern.

Like other adjectives, these frequently form the second element in restrictive compounds
(e.g. *kukbarmeng* 'white skinned', *mudbarmeng* 'white-feathered', *marrengerrmeng* 'red-
haired'). It is possible that the reanalysis of these verbs as adjectives was favoured by the
formal and semantic parallels between intransitive verbs with incorporated subjects, and
restrictive compounds — see remarks in §5.4.3.

5.6.2 *Partially deverbal nominals*

The lexicalisation of verbs inflected for actants and TAM categories (usually without
further morphological marking) as names for entities, kin terms and practices, is a common
feature of polysynthetic languages (see e.g. Michelson (1990) on Oneida, Sasse (1993, 1999)
on Cayuga, and Mithun and Corbett (1999) on Mohawk). In Bininj Gun-wok, for example,
ka-warlbu-n [3-hunt-NP] used as the main predicate, means 'he is hunting', but it can also be
construed as a relative clause meaning 'he who hunts/is hunting' or 'the one hunting/who
hunts', when accompanied by the relative demonstrative *nawu* 'that' (see §14.3). This second
use has then become sufficiently conventionalised that it can function as a habitual agentive

nominalisation, with the meaning 'hunter'; in such cases the relative demonstrative can be omitted.

Lexicalised deverbals can be based on either pronominal argument of the verb, and may be ambiguous where the verb has more than one: *bi-yawmey* [3/3hP-conceive-PP, lit. (the one such that) she conceived him/her] can mean either 'his/her mother', deriving from a relative clause with subject pivot, or 'her child', deriving from a relative clause with object pivot. They may also derive from taking the whole clause as the referent (e.g. *arri-djuhme* [we-batheNP] 'the practice by which we bathe, i.e. our ceremony of purification by swimming' and *gabarri-mikme* [they-respectfully.avoid] 'their practice of using the avoidance register'). In some cases there is ambiguity between taking one of the actants, vs the whole proposition, as the referent: thus *gabarri-bolk-nahnan* [they-country-look.afterNP] can mean either 'they who look after the country; custodians' or 'their practice of looking after the country, their custodianship'.

The last example illustrated the possibility that such lexicalised deverbals may contain an incorporated noun. A few also have external nouns in object or intransitive function (e.g. Dj *ga-nahna-n Gunabibi* [3-look.after-NP Gunabibi] 'Gunabibi boss' and MM *jang ga-wernmen* [dreaming.site 3-increase-NP] 'increase site').

Apart from the need to use *nawu* with the relative clause interpretation, there is no morphosyntactic difference between relative and deverbal uses. This makes it difficult to decide when one is dealing with a lexicalised deverbal expression. Consider the expression *nawu kan-bukkabukka-n* [REL:DEM 3/1a-teach-NP] 'our teacher' (lit. 'the one such that (s)he teaches us'): Is this a lexicalised word for 'teacher', or merely an ad hoc formation of a relative clause?

This question is not always answerable in a principled way, and to some extent rests on considerations of how frequently the particular combination is encountered. However, the five tests outlined in the next section can often be employed.

5.6.2.1 Criteria for identifying lexicalisation of deverbals

One or more of the following criteria may be used to identify lexicalised deverbal nominals:

(a) NOUN-CLASS PREFIXATION Particularly in Gun-djeihmi, noun class prefixes can be added to the deverbal formations (in front of the pronominal prefixes) but not to relative clauses in general. Examples are (5.282, 5.283); see also (4.14) for an example with the locative prefix.

5.282 *al-ngani-h-yo / al-ngani-h-ni*
Dj   II-1ua-IMM-lieNP   II-1ua-IMM-sitNP
   'my wife' (lit. 'she (who) we lie/sit')

   al-nguni-h-yo / al-nguni-h-ni
   II-2ua-IMM-lieNP   II-2ua-IMM-sitNP
   'your wife' (lit. 'she (who) you two lie/sit (together)')

5.283 *al-bani-danginj*
Dj   II-3uaP-standPP
   'his/her sister' (lit. 'she (who) they two "stood" (were born))

5.284   *al-bani-rengeh-re-i*
Dj   II-3ua-ITER-go-PI
         'his old girlfriend', 'the girl he was going around with'

(b)   FIXED TAM VALUE As the above examples illustrate, the TAM value of the verb may be non-past, past perfective or past imperfective. Two further examples with the perfective are 4.14 and 5.285, and we shall see more in the section on deverbal kinship terms. Example 5.284 is the only one with the imperfective, and no examples with the imperative or irrealis have been recorded (they are also unlikely on semantic grounds).

5.285   *ba-yo-i*
Dj   3P-lie-PP
         'left overs'

      But even though there are three possible TAM values for these nominalisations, variation of the TAM value is not generally possible with the deverbal reading. With *bani-danginj* 'his/her sibling; they two siblings', for example, the root *da-* 'stand; be born' is only attested as a deverbal with the past perfective TAM inflection, whereas when used as a verb it combines (albeit rarely) with other TAM values, such as the non-past *dangen* in 4.15. (It regularly occurs with all other TAM values when it has the basic 'stand' meaning.)

(c)   CONVENTIONALISATION OF OTHER MORPHOLOGICAL POSSIBILITIES Various other morphological possibilities become restricted when verbs get lexicalised. Consider the verb *bornan* 'to beget'. To begin with, the deverbal reading with the meaning 'father' is restricted to its past perfective form, as in *nga-bornang* [1/3-father-PP] 'my child' (lit. '((s)he whom) I begat') and *ngan-bornang* [3/1-father-PP] 'my father' (lit. '(he who) begat me'). But in addition, various morphological possibilities exploited when this is used as a standard verb are absent when it is deverbalised. Thus the attestation of verbal uses includes examples with an incorporated object (5.286) and in the reflexive form (5.287), neither of which occur in the deverbal use.

5.286   *Wanjh ø-yaw-borna-ng   ngalengarre Likanaya   kore King River.*
W   then   3/3P-baby-beget-PP   herOBL   [place]   LOC
         'Then he made a baby for Likanaya, at the (mouth of the) King River.' [KS 56]

5.287   *Beywurd ø-borna-rr-inj.*
I   child   3/3P-beget-RR-PP
         'He fathered (for himself) a child.' [GID]

      The restriction on morphological possibilities with deverbal nominalisations is not total.
      Firstly, deverbals expressing personal relationships, such as kinship, allow all possible values of subject and object pronouns.
      Secondly, some deverbal nouns of place/physical manifestation, which typically incorporate a generic noun into *-yo* 'lie' (5.288, 5.289), also allow the incorporation of body-part roots and spatial prefixes to provide further detail about the trace (5.290–5.292).

5.288   *ga-bo-yo*
Dj   3-liquid-lieNP
        'river'

5.289   *ga-bok-yo*
Dj   3-track-lieNP
        'track' (i.e. mark of person or animal)

5.290   *ga-godjge-yo*
Dj   3-sleep-lieNP
        'marks made (by sleeping kangaroo)'

5.291   *ga-berd-bok-yo*
Dj   3-tail-track-lieNP
        '(kangaroo's) tail prints'

5.292   *ga-bulurru-bok-yo*
Dj   3-slide-track-lieNP
        'slither marks (of crocodile)'

Thirdly, even basically frozen sequences may have some prefixal slots open (see the discussion in §4.1.2 of *garrumboledmi* 'afternoon' (lit. 'it-sun-turns') for an example).

(d) NOMINAL SYNTAX Lexicalised deverbals resemble ordinary nominals in their syntactic possibilities: they can occur without the relative demonstrative *nawu*, including when used as locatives, in which case they either combine directly with the locative preposition *kore* (5.293) or have no marking of their locative role (5.294), an option also found with regular locations (see §13.4.1).

5.293   *Ngal-bu   daluk   kore ka-h-bim-di   mak birri-djal-wern*
W   FE-REL   woman   LOC   3-IMM-image-standNP   and 3a-just-many
                                                  painting
        'The woman in the picture here [*kahbimdi*] is just anyone.' [KS 142]

5.294   *Ga-bo-rrolngga-n   a-wurlebm-e*
Dj   3-liquid-spray-NP   1-swim-NP
        shower
        'I'll have a shower.'

Likewise lexicalised deverbals used as time adverbials may either take the locative prefix (4.14) or be used with no marking of their role (5.295).

5.295   *Ga-rrum-boledmi   a-m-re   ∅-na-n   wudda-djahdjam.*
Dj   3-sun-turnNP   1-hither-goNP 1/2-see-NP you-CHACLOC
        afternoon
        'Tomorrow afternoon I'll come out and look out at your camp.' (Here *garrumboledmi* represents an advanced stage of lexicalisation, the final *ng* in *dung* 'sun' having irregularly assimilated in place of assimilation to the following *b*.)

When used as possessive modifiers, deverbal nominals are simply placed next to the possessum, and do not take a genitive case suffix (5.296).

5.296   *ngan-yawme-y   kun-red*
I   3/1-conceive-PP   IV-country
          'my mother's country'

(e)   SEMANTIC SPECIALISATION   Some deverbal nominalisations can be used under a different set of conditions to the corresponding verbs, owing to the semantic specialisation that often accomplishes lexicalisation. The two deverbalised words for 'waterfall', *ga-bo-man.ga-n* [3-water-fall-NP] (Table 4.1) and *ga-djurrk-bume* [3-running.water-blowNP], can both be applied to a dry waterfall (e.g. during the dry season) for example, whereas the full verbal uses (e.g. the choice of one of the past forms) are limited to situations where water is actually falling. Other examples are the restriction of deverbal *arri-djuhme* (see above) to the 'bogey [water-purification] ceremony', where the non-lexicalised verb can apply to immersion in water for all purposes while the deverbal nominalisation is confined to situations of actual purification, and the restriction of the 'we-sit' and 'we-lie' expressions to one's spouse, ruling out the deverbal use with others with whom one happens to be sitting or lying in the same place.

5.6.2.2 Main semantic categories

Most of the semantic categories covered by partially deverbal nominalisations have already been exemplified. The most important types are:

(a)   TERMS FOR HUMAN RELATIONSHIPS   The core of this category are kin terms for relationships within the nuclear family, namely father (e.g. *nganbornang* 'he begot me; my father' — cf. 5.286), mother (e.g. *nganyawmey* 'she conceived me; my mother'), sibling (e.g. *al-bani-danginj* 'his/her sister; she that they were born (together)') and spouse (e.g. *al-nguni-h-yo/al-nguni-h-ni* 'your wife; she that you two lie/sit (together)' (cf. 5.282). The parent terms can be used to designate offspring by taking the object as pivot (e.g. *nga-yawmey* [1/3-conceivePP] 'my child; the one I conceived'). Generally the person combination constrains the interpretation (e.g. I/him-begot is 'my son' while he/me-begot is 'my father'), but where both actants are third person minimal either reading is possible (e.g. *bibornang* 'he/him(her) begot'), which may mean either 'his child' or 'his/her father'). The reference of the spouse terms to 'wife' or 'husband', and of the sibling terms to 'sister' or 'brother', may be picked out by the noun-class prefix.

These deverbal kinship terms exist alongside nouns designating essentially the same relationship (see §1.4.1). However, whereas the kinship nouns are readily extended to classificatory kin of any degree of genealogical distance or even merely fictively kin, the deverbal kinship terms emphasise genealogical closeness and the basically biological events that engender the kinship relations. The deverbal terms will typically be used in making genealogical statements (5.297) and in stressing that a given individual is one's actual, as opposed to one's merely classificatory, kin.

5.297   *Na-ngale   ngun-borna-ng?*
I   I-who   3/2-beget-PP
                       father
          'Who is your father?'

In such discourse contexts, it should be noted, the syntax of the clause allows either an analysis in which the kinship relation is parsed as a true verb (e.g. 'who begot you' in 5.297) or one in which it is parsed as a nominal predicate (*Nangale mamamh nguddangki* [who MF your] 'who is your maternal grandfather?').

A further difference between deverbal and purely nominal kinship terms here is that, in address, it is always the nominal terms that are used (e.g. *karrang!* 'mother!').

In addition to kinship terms proper, there are a number of other deverbal nominalisations for human relationships of various types; most can equally well be used as verbs in predicates establishing the relationship, or as deverbal nominals to refer to an individual in such a relationship. These include 'boss' (5.298), 'sweetheart (typically clandestine)' (5.299), 'co-lover' (5.300) and 'ex-girlfriend/boyfriend' (lit. 'they went around'; see 5.284).

5.298   *Ngan-marne-worhna-n.*
Dj   3/1-BEN-look.after-NP
        a. 'He looks after me.'   b. 'My boss.'

5.299   *Kabene-na-rr-en.*
W, I   3ua-look.at-RR-NP
        a. 'They two are sweethearts.'   b. '(His/her) sweetheart.'

5.300   *Gabani-madj-yi-gadju-rr-en.*
Dj   3ua-swag-COM-follow-RR-NP
        a. 'They are co-lovers. (i.e. they take turns in the same bed).'   b. 'His/her co-lover.'

(b) PRACTITIONERS AND PRACTICES Examples of this have already been given (e.g. *ga-warlbun* [he-hunts] 'hunter', *gabarri-bolk-nahnan* [they-country-look.after] 'custodians; custodianship', *ga-nahnan Gunabibi* [he-look.after Gunabibi] 'Gunabibi boss', *arri-mikme* [we-practice.avoidance] 'our practice of respect towards in-laws', *arri-djuhme* [we-bathe] 'our practice of ritual cleansing').

(c) DYNAMIC PLACES This covers various aspects of the landscape that result from dynamic forces, and that are typically evanescent to some extent; this applies particularly to bodies of water which are all highly changeable in the monsoonal climate of the area. Examples are the waterfall terms described above, as well as *ga-bo-yo* [it-water-lies] 'river', *ga-bok-yo* [it-track-lies] 'track', *ga-berd-bok-yo* [it-tail-track-lies] 'kangaroo's tail prints, *ga-bulurru-bok-yo* [it-slither-track-lies] 'slither marks of a crocodile', *ga-bo-re* [it-liquid-goes] 'spring'. It is striking that in all such cases the structure includes an incorporated nominal with an intransitive verb, and in each case a thetic or existential reading (e.g. 'there is water coming out') is also possible. For some of these, regular nominal synonyms exist (e.g. *gun-bok* 'track'), though it is difficult to elaborate these (e.g. into 'slither tracks') without passing to the (de)verbal form. For others only the deverbal locution is available (e.g. *gabore* 'spring' and the waterfall terms).

(d) METEROLOGICAL EVENTS Many expressions denoting times of the day (e.g. *ga-rrung-yibme* [it-sun-sinks] 'sunset', *ga-malayi-barrhbun* [it-morrow-cracks] 'dawn', *ga-rrumboledme* (see 5.295 above) 'afternoon') are included here, as well as many names for seasons (e.g. *ka-ngurdurlme* [it-thunders] 'pre-wet season; lightning time'). For many of these it remains difficult to prove definitively that these are really lexicalised,

since the possibility of using tensed versions establishes their verbal nature quite clearly (5.301), though in eastern dialects one morphological feature they share with core nominals is use of the 'time' suffix *-keno* (5.114).

5.301   *Galuk   ba-malayi-barrhbu-ni   barri-yauh-re-y.*
Dj   then   3P-morrow-crack-PI   3uaP-again-go-PI
         'Then when day was breaking they would go off again.'

(e)   ARTEFACTS A few terms for artefacts are deverbal nominalisations (e.g. W *ka-djongbu-rr-en* [3 -put.on-RR-NP] 'dress', *ka-rrulk-warnam-yo* [3 -tree-crosswise-lie] 'cross'). However, it is striking that although appropriate verbs are often used to describe such entities, or the relations to them of their users, these verbs typically do not get lexicalised as names in the way they do in the Iroquoian languages, for example; instead, most novel artefacts are denoted by nouns borrowed from another language. For example the verb *ka-kodj-djongdi* [it-head-be.put.inside] will often be used to describe a person wearing a hat, but the English noun 'hat' is an alterative; similarly a verb of sticking or tying will typically be used to describe someone with a bandage on (e.g. MM *barri-mat-dukgang* 'they tied up his ankle' or Kuninjku *mad-belbmerrinj* 'his ankle is stuck together') but the loan-word *burridjdjang* (possibly Macassan) or *bendidj* (< bandage) is also used.

Note that this preference for loan-words does not extend to new *processes* (e.g. telephoning, or getting a flat tyre) which will be designated by new combinations of an incorporated noun plus verb. It thus appears that the language specifically disprefers the use of deverbal nominalisations for artefact terms.

5.6.2.3 Nominalisations from other types of predicate

A few nominalisations are based not on verbal predicates but on locative nominal predicates. These resemble partially deverbal nominalisations in permitting the concatenation of two rounds of prefixal morphology, in the form of a noun-class prefix in front of the locative prefix.

5.302   *na-gu-bodme-gadi / al-gu-bodme-gadi*
Dj   I-LOC-back-on   II-LOC-back-on
         'Male/female impregnating spirit (that rides) on the back (of the hunted animal).'

6   *The nominal group*

6.1 Problems with the notion of NP in Bininj Gun-wok

I have called this chapter 'the nominal group' rather than 'the noun phrase' because the notion of noun phrase is inapplicable to this language on any strict definition of the term, which normally takes as criterial such characteristics of the NP as the presence of a determiner, clear criteria for showing constituency, and the presence of internal sequence rules. Rather, whether a given language has a clear NP category is a language-specific question,[1] and for languages which lack this category the less restrictive term, nominal group, is preferable (cf. Himmelmann 1997:11–12).

Overall:

(a) Although several nominal words pertaining to the same entity are often adjacent, there is rarely evidence that they form part of a syntactic unit; rather they are related paratactically and the relations between them are worked out from pragmatics rather than syntax. At best there are a couple of sequence rules that amount to specific constructions combining nominal elements.

(b) The assemblage of referring expressions largely proceeds by unifying material from the verb with that from adjacent nouns.

In the rest of this section I discuss four ways in which Bininj Gun-wok departs from the structures found in a language like English. In §6.1.1 I deal with the difficulty of dividing texts into predicates and actants. In §6.2.2 I pass to the problem of determining an NP constituent by tests of adjacency and order. In §6.2.3 I look at the way a 'functional NP' – which would be represented by an f-structure in a theory like Lexical Functional Grammar – needs to unify information found in the nominal group and the various sites on the verb. Finally in §6.1.4 I go even deeper and look at the question of whether the basic semantic division between argument and predicate always corresponds to that found in English.

6.1.1 Difficulties in determining predicate versus actant use

As in many polysynthetic languages (see Sasse 1991; Launey 1994), the opposition between predicate and actant is frequently unclear, since a typical verb already contains a

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1   See, for example, Heath (1986) for arguments that Nunggubuyu has no such unit.

great deal of information about the actant(s). Rather, identificational information typically proceeds by a series of successive predications.[2]

Consider the following passage, from a Gun-djeihmi text about rock painters told by David Kanari. I have supplied two translations, the first assimilating it to a typical 'Standard Average European' structure with clearly defined nested NPs, and the second reproducing the original structure more closely.

6.1   *and   na-mak   ngaye ngarri-danginj nagohbanj,   ngaye   na-wernwarre*
Dj   MA-good me   1ua-standPP   old.man   me   I-older.sibling
                                             – sibling –

na-rangem   ngarduk, Nayombolmi Charlie, Barramundi   Charlie
MA-male   my   [name]

barri-ngeibu-ni   waidbala   Gorrogo bi-marne-wokgihmi   waidbala
3a/3P-call-PI   whitefeller   before   3/3P-BEN-workPI   whitefeller

nángamed,   Frank Muir   gure   ngamed   Djarradjin, Djurdílba,
who   LOC   what   [place]   [place]

balanda   barri-bolk-ngeibo-m   Muirella Park.
white   3aP-place-call-PP

Translation a. 'And my dear old brother, that old fellow — my older brother Nayombolmi Charlie — whose whitefeller name was Barramundi Charlie. In the old days he used to work for a whitefeller, whatsisname, Frank Muir, at whatsitsname, Djarradjin, Djurdílba, whose whitefeller name was Muirella Park.'

Translation b. 'And that good old man, we were born of the same parent, my older sibling, he was male, Nayombolmi Charlie, they used to call him Barramundi Charlie, the whitefellers. In the old days he used to work for a whitefeller, whatsisname, Frank Muir, at whatsitsname, Djarradjin, Djurdílba, the whitefellers used to call the place Muirella Park.'

On the second translation there is a greater number of clauses (five verbs instead of three), the relations between elements are looser, the hierarchical relationships present in the first translation (such as relative clauses like 'whose whitefeller name was X') are no longer present, and the actant-predicate relations that are clear on the first translation have become blurred.

A related problem is created by the lack of an obligatory copula, and the virtual lack of formal means for signalling whether nominals are functioning syntactically as arguments of predicates. This makes it difficult to decide whether a sequence of nominal words (e.g. a demonstrative and a noun), even where they pertain to the same entity, is to be treated as a single phrase, or as an ascriptive clause construction. Consider the following passage, for which two alternative translations are again supplied (one by Carroll, who recorded the story, and measured the pauses shown in brackets, and one by the present author).

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2   It has been pointed out to me by Matthew Dryer (pers. comm.), however, that this phenomenon does not correlate simply with the degree of polysynthesis, since some polysynthetic languages of North America (e.g. Kutenai, Algonquian) do not present this pattern, while some isolating languages do; see, for example, David Gil's (1994) treatment of Riau Malay.

6.2   *Na-mekbe bininj duninj kunj*   *ø-ka-ni,* [0.4]
W   MA-DEM   man   proper   kangaroo   3/3l-carry-PI

     na-ni   *na-wu*   *mam*   *kun-malng* [2.2]
     MA-DEM   MA-REL   devil   IV-spirit

     na-nu   *wanjh,* [1.8]
     MA-DEM   then

     ø-djare-ni kunj. [2.7]
     3-want-PI   kangaroo

     a. 'The one with a kangaroo was a true man. The other was a devil spirit.
     That one then, he was wanting kangaroo.' [OP 410; Carroll's translation]
     b. 'The real man was carrying the kangaroo, while the devil spirit one (= the one
     who was a devil spirit) was wanting the kangaroo.' [alternative translation by N.E.]

The critical difference between these translations, both of which are compatible with the text, lies in what they treat as main predication and what they treat as part of larger NP units. The structural analysis implied by Carroll's translation of the first line treats *kunj kani* as a relative clause (who was carrying a kangaroo), while the analysis implied by mine treats it as the main predication. Conversely, Carroll's treats *bininj duninj* as the main predication (was a true man) whereas mine treats it as part of the subject noun phrase. In the next part Carroll's translation splits the sentence up into two separately asserted propositions ('the other was a devil spirit' and 'that one then, he was wanting kangaroo'), whereas mine interprets *mam kunmalng* as a relative clause, partly because the relative demonstrative *nawu* is present and this favours a relative clause interpretation (though it does not force it), and partly because the information about him being a devil is not new but had been given a few lines previously. The possibility of these rather different translations arises from the lack of grammaticalised means of signalling the difference between predicate and actant interpretations, or, from the point of view of discourse dynamics, of signalling the difference between theme and rheme. (It is possible that a proper analysis of the intonational system will show how these differences are signalled.)

From the point of analysing the syntax of the NP, these issues create widespread indeterminacies about what the relevant units are. Carroll's analysis leads to such units as *namekbe ... kunj kani* 'the one with the kangaroo' and *nani nawu* 'that one', whereas mine postulates the units *namekbe bininj duninj* and *nani nawu mam kunmalng* 'that devil spirit one'.

6.1.2 Lack of evidence for NP constituency

The second problem, shared with a number of so-called 'non-configurational' languages, is posed by the fact that the elements corresponding to a single NP in English need not occur contiguously. 'My baby' in 6.3 and 'that snake Ngalyod the rainbow snake' in 6.4, for example, are represented by material on both sides of the verb. In neither case is there any pause between elements, and note that the Carroll corpus from which these examples are drawn notes pauses as short as 0.2 seconds.

6.3   **Wurd na-wu**   *yi-na-yi*   *ngarduk?*
W   baby   MA-REL   2/3-see-IRR   my

a. 'Have you seen my baby?' [OP 401; Carroll's translation]

b. 'Have you seen the baby, of mine?' [alternative translation]

6.4   *Nabinkullawa   na-wu   ngal-lekke daluk   bi-rrang-balhme-ng   ku-wardde*
W   [name]   MA-REL   FE-DEM   woman   3/3hP-door-close-PP   LOC-rock

*wanjh   **nayin na-mekke** bi-bom   **ngal-yod**.*
then   snake   MA-DEM   3/3hP-killPP   II-rainbow.serpent

a. 'Nabinkullawa closed the opening of the cave on that woman then that snake killed her it was the Rainbow Serpent.' [OP 330; Carroll's translation]

b. 'Nabinkullawa closed the opening of the cave on that woman, then that Rainbow Snake killed her.' [alternative translation]

Are such examples to be treated as single phrases which happen not to have all their elements contiguous (as suggested by Carroll's translation for 6.3), or as appositions of nominals which all refer to the same entity, but are not necessarily part of a single phrasal constituent, instead being strung together paratactically?

This issue has been widely discussed for a number of other Australian languages,[3] but occurs in a more exacerbated form here. It has been suggested for many Australian languages that although nominal elements may be simply apposed as far as constituent structure goes, they are nonetheless reassembled into a unit at another level of representation (such as functional structure in LFG) on the basis of their matching 'categorial signatures' (Hale 1983), that is the possession of common morphosyntactic values for case, number and/or gender. A clear statement of this position is in Dench's (1995a:189) grammar of Martuthunira, in which one criterion for identifying noun phrases is as 'sequences of nominals over which some nominal suffix may be distributed'.

Now there are clear problems adapting this analysis to Bininj Gun-wok, owing to the paucity of agreement morphology on nominals. The lack of case marking on core NPs, its optionality on non-core NPs, and the fact that roles are normally marked on at best one element, means that examples like 6.5, which appear to display case agreement morphology, are extremely rare; in any case, it is equally plausible to treat this as a case of true apposition (as suggested by the alternative translation) in which the two nominal words, though sharing the same case inflection, are not a single syntactic unit (see Dench and Evans 1988 on a range of such constructions). It might be thought, in the absence of case-marking, that gender marking could be used to assemble NPs, but as we saw in §5.5 gender agreement is restricted to some dialects only, and even in those fails to apply in such a wide range of circumstances that it would be at most a patchy method.

6.5   *Gotjjarn   gu-barndat-gah ga-di   ngan-djoh-gah.*
MM   witchetty.grub   LOC-root-LOC   3-stand III-[acacia.sp.]-LOC

a. 'Witchetty grubs live in the roots of *ngan-djoh* trees.'

b. 'Witchetty grubs live in roots, in *ngan-djoh* trees.'

There is also a high degree of indeterminacy when it comes to order and function within a sequence of nominal elements. As is typical in Australian languages generally, as well as

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3   See, for example, Hale (1983) and Simpson (1991) on Warlpiri, Blake (1983) on Kalkatungu, Heath (1986) on Nunggubuyu, Dench (1995a,b) on Martuthunira and Nordlinger (1998) on a number of Australian languages.

more broadly in languages which lack a clearly defined noun phrase, there is no true determiner category. Although specification of nouns by combining them with demonstratives and/or pronouns is preferred, bare nouns can achieve reference, as with the examples of *maih* 'the birds' in 2.66 and *gohbagohbanj* '(the) old men' and *yawurrinj* '(the) young man/men' throughout Text 4 (on bare nouns see §6.3.2 below for further discussion). There are also no second-position auxiliary phenomena that, in a language like Warlpiri, can be used to demonstrate constituency.

The difficulty of identifying a phrase-like group is exacerbated by the lack of ordering restrictions when a sequence of nominal words occur together. It is not possible to establish a comprehensive set of clear ordering rules with respect to such functions as 'determiner', 'number', 'qualifier', 'generic' and 'entity', although there are a few rules governing the ordering of some determiners (e.g. when 'one' is used to mean 'a certain'), and certain possessive constructions. Issues of order will be discussed in §6.3 below. To preview that discussion, in the absence of a clearly structured noun phrase, descriptors of entities are built up through successive mention, but the nominal elements involved need not form part of any syntactic unit.

Taken together, these factors entail a great deal of indeterminacy with respect to whether a number of nominal words form a phrase, and indeed of which verb, if any, they constitute an argument, owing to the lack of core case-marking.

6.1.3 The unification problem

The third problem in establishing the unit of analysis — this time at the level of finding surface exponents of particular referring expressions or 'functional' NPs — comes from the degree to which information from the verb and from free nominal elements must be integrated in constructing referring expressions. Consider the following two sentences from a text commenting on a small flock of pigeons walking down towards a river to drink; for expository purposes I have indicated in bold those portions of the sentence which are unified to give the referring expression at issue.

6.6   ***Na-bene maih*** *a-na-ng*   *ga-m-golu-rr-en*   *gaddum-be djohboi.*
Dj   MA-that   bird   1/3-see-PP   3-hither-descend-RR-NP   up-ABL   poor.thing
       'I've seen **those birds** coming down (to the waterhole) from higher up, dear little things.'
       … [3 lines of text intervene] …
       Na-mege   *maih*   *ngarrgu*   *gabarri-bódjare gukku.*
       MA-that   bird   our   3a-thirstyNP   water
       '**Those birds of ours**, they're thirsty for water.'

In both lines the full semantic specification needed to reach the interpretation 'those birds' and 'those birds of ours' can only be obtained by combining information from external material, in a nominal group, and material inside the verb. The first two words of the first line could be translated as either 'I saw that bird' or 'I saw those birds', but the plural interpretation is forced by the following verb, which uses a reflexive/reciprocal suffix with a collective interpretation (§11.3.1.2), even though the pronominal prefix (as is normal with lower animates) does not encode their number. In the subsequent line, specification of plurality again occurs in the verb: here the speaker, somewhat unusually, uses the augmented

form of the pronominal prefix to indicate plurality, as a way of personifying the birds (and the theme of the whole text is the way the birds care for their offspring by taking water back in their crops).

Supplying the number of nominal expressions is only one example of how information from the verb is unified with external nominal material. Another common situation involves the integration of incorporated nominals with external modifiers (6.7); a further case involves set/subset constructions, where the superset is represented by a pronominal prefix to the verb and the subset by an external free pronoun or nominal (6.8).

6.7   *Nga-yaw-ngu-n*   **ngaleng   ngarre.**
W   1/3-baby-eat-NP   3fem   3fem.OBL
         'I will eat **her baby**.'   [OP 401]

6.8   *Wanjh   daluk   ngal-mekbe   bene-re-y.*
W   then   woman   FE-DEM   3uaP-go-PI
         'Then he and that woman were going.' (i.e. 'they two, including that woman')   [OP 406]

These types do not exhaust the way in which unification from verbal and nominal material is used to construct referring expressions; the topic is discussed in more detail in §6.2. It is noteworthy that in all such cases the nominal and verbal material are directly adjacent.

6.1.4 The division problem

The preceding section presupposed that the actual semantic division into predicate and arguments is unproblematic, even though the information pertaining to arguments is distributed across both nominals and verbs. An important question, however, is whether the concentration of morphology on the verb leads to a different division of how situations are represented, in terms of what information is taken to pertain to the arguments and what to the event (see discussions among philosophers of the so-called 'division problem' (Hirsch 1997)). This arises most acutely in the case of some types of noun incorporation, as well as in the interpretation of some bound verbal affixes of a broadly quantificational nature.

Consider a clause like the following:

6.9   *Yekke-keno*   *ka-ko-di*   *man-mardba.*
I   dry.season-TIME   3-flower-standNP   III-eucalyptus.phoenicea
                          – flower – NP
         'The *Eucalyptus phoenicea* flowers in the dry season.'   [GID]

How should this clause be analysed, and in particular what is the correct treatment of *kakodi*? On one analysis *kodi* is simply a verb, meaning 'to flower', that happens to be decomposable into a prepound identical to the nominal root *ko* 'flower', plus a thematic *di* 'stand'. On another, *di* here is the main verb 'stand', and *ko* is an incorporated 'part' noun which restricts the degree to which the main verb is predicable of its subject; that is, the interpretation is something like 'the *Eucalyptus phoenicea* stands/displays salient vertical features, as far its flowers are concerned'.

There is evidence for interpretations of each type in the grammar (see §8.2.1 on complex verb stems, and §10.4.2 on the semantics of part incorporation). The development of new lexemes by reanalysing old incorporated or compounded nouns as part of a new complex

verbal stem is a productive means of expanding the lexicon (§8.2.1), and although there are formal tests for identifying lexicalised prepound + theme structures (§8.1.3.3) there are a number of difficult transitional cases, so that the decision as to the proper treatment must be made individually for each lexeme.

To summarise my position: our analysis of Bininj Gun-wok must distinguish three types of case: (a) those where incorporated nouns are simply regular arguments that happen to be morphologically positioned inside the verb (see §6.2.2 and §10.4.3); (b) those where incorporated nouns denote the part of an absolutive argument involved in or affected by an action (see §10.4.2); (c) those where a noun root has been compounded with a verb stem, so that the noun root is no longer a distinct syntactic entity (see §8.2.1) on complex verb stems. These three situations can be clearly distinguished in principle, and a range of tests can be used to identify each type, though there are also borderline cases, and lack of any immediately obvious formal difference between them means that a range of tests typically needs to be applied before we can identify the appropriate analysis in a given case.

A second problem concerns the use of nouns incorporated into stance verb for 'thetic propositions' (§10.4.3.3) in which the existence of a state-of-affairs as a whole is asserted (see Sasse 1987; Launey 1994), without dissecting it into a predicate made of some actants, so that 'it-tree-stands', for example, is used to assert the state of affairs of there being a tree present. Here again the analysis is problematic: Are such constructions syntactically like zero-argument weather verbs, with no actant at all (with the incorporated nominal giving further information about the type of stance, e.g. 'stand tree-like'), or is the incorporated noun effectively an argument of the verb which happens to be incorporated? Matthew Dryer (pers. comm.) favours the first analysis for the polysynthetic language Kutenai, but in Bininj Gun-wok the fact that if no suitable incorporable noun root is available a free nominal must be used, in what looks much more like a regular one-place construction (see §10.4.3.3), disfavours such an analysis.

Clearly in the 'flowering' case, and less decisively in case of the thetic construction, it may be argued that the appropriate analysis is not to simply construct a referring expression by integrating material that happens to be encoded partly in the verb and partly on an external nominal, as I suggested under the rubric of the 'unification problem' above. Rather, incorporation of a noun root into the verb is iconic of the fact that one cannot achieve a clear separation of actant and predicate in these circumstances.

The other place where the division problem emerges clearly is in the interpretation of certain prefixes on the verb. Consider the prefix *warrgah-*. In many examples this is best translated by the English adjectival expression 'the wrong ...', as in (6.10), which might naively be taken to suggest it is a modifier of nominal heads that happens to be prefixed to verbs.

6.10   *Na-bininjkobeng   bini-warrkah-bo-m.*
E   I-spouse   3uaP-wrong-hit-PP
        'They punched the wrong husband.'

However, consideration of a broader range of contexts (discussed in detail in §11.3.4) shows that its meaning is more complex, and essentially evaluates an event as having had the wrong outcome owing to the action having involved an entity that was or ended up in the wrong place (e.g. with 'fall' it means 'fall in the wrong place'). The semantics of this affix, then, cannot be easily accommodated in any simple division between material pertaining to events and material pertaining to actants.

6.1.5 Preview of rest of chapter

The rest of this chapter will be organised as follows: §6.2 looks in detail at the ways material from verbs is unified with external nominals to construct detailed referring expressions; §6.3 looks at what constructional types can be identified within groups of external nominals; §6.4 passes to the problem of adpositional groups, where a preposition or postposition is combined with a nominal group; and finally, §6.5 looks at a number of clitics which combine with nominal groups.

6.2 Unification constructions and referring expressions

In this section we examine four semantic areas in which material from the verb and external nominals is unified to give full referring expressions: number, head–modifier relations, information on referential and discourse status, and domain. This last category has to do with alternative delimitations of the extension of the predication, and can be further divided into set–subset and part–whole constructions.

6.2.1 Number

We have already seen (§6.1.3) that information on nominal number is most commonly encoded on the verb, either on the pronominal prefix or by the collective use of the reflexive/reciprocal suffix. While in the case of non-human arguments number is only encoded in the pronominal prefix in cases of personification or salience (§10.2.5.1–10.2.5.2), with human arguments it is always so marked, whether as augmented (6.11) or unit augmented (6.12):

6.11   *dja   barri-ru-ngi   yawurrinj*
Dj   and   3aP-burn(INTR.)-PI   young.man
        'and the young men would get burned'

6.12   *Marrek ø-bengka-yi   yungkih   Kamarrang rowk bini-marne-warlkka-rr-inj.*
E:D   NEG   3P-know-IRR   in.front   subsection all   3ua/3P-BEN-hide-RR-PP
        'He didn't know that two men of Kamarrang subsection were ahead hiding
        from him.'

The regular use of number on pronominal prefixes compensates for the limited means for showing plurality on nouns themselves, primarily through various forms of reduplication (§5.3.2). However, pronominal prefixes only show number for core arguments (subject and object; see §10.2.1–§10.2.2) and only if they are human (leaving aside special instances of personification) and in other situations a number of other means must be used:

(a)   The use of inherently plural demonstratives such as Dj *namegebu* 'those' (§7.3.1, 5.259) and W *naninjanu* 'those' (5.256); Dj *namegebu daluk* and W *naninjanu daluk* both translate 'those women', though in the examples given number is also shown on the pronominal prefixes to the verb.

(b)   The use of 'numerospatial quantifiers' prefixed to the verb, such as Dj *mirnde-* 'many', *gaberrk* 'mob', and *djangged* 'bunch', E:D *njon* and *bul* 'mob', and *mogen-* which in Gun-djeihmi means 'bundle' but in Kune means 'mob, bunch' as in:

6.13 a. ***Kuluban***   *ka-moken-di.*
E:N   flying.fox   3-mob-standNP
          'There's a flock of flying foxes.'

     b. ***Kuluban***   *nga-moken-na-ng.*
E:N   flying.fox   1/3-mob-see-PP
          'I saw a mob of flying foxes.'

When these numerospatial quantifiers are used with non-humans they are in complementary distribution to the normal encoding of number on the pronominal prefixes. They normally have scope over the absolutive argument, and it is likely that they originated as incorporated nouns denoting objects like 'bundle', 'bunch' and so forth. (For fuller discussion see §11.3.3.)

(c) Two nominal words often used to emphasise plurality are *rowk* 'all' (e.g. *yawurrinj rowk* '(all) the young men') and *ngong* 'mob, lots of' (e.g. MM *algordow ngong* 'the brolgas' and E:N *djirrbili ngong* 'lots of *djirrbili* fish'; see §6.5.2).

(d) There remain many contexts in which only context or real-world knowledge determines whether a plural reading is intended. In *birndu gadjaldi* 'there are still a lot of mosquitoes around' in 11.163, for example, there is no explicit marking of plurality; a plural reading is preferred simply on the basis that mosquitoes normally come in swarms.

6.2.2 Head noun/modifier relations

Referring expressions are often constructed by combining an incorporated nominal and an external modifier of various types, such as adjective (6.14, 10.244), numeral (6.15, 10.250), possessive pronoun (6.7, 10.247) or demonstrative (6.16, 10.248).

6.14 ***An-biya***   *garri-yerrng-ma-ng,* *bu*   *garri-worrhm-i,* *an-dehne*
Dj   VE-different   12a-wood-get-NP   REL   12a-light-NP   VE-this

      an-geb-warre.
      VE-flame-bad
      'We'll get some different wood when we make the fire, this (kind of) wood produces a poor flame.'

6.15 *Ngakngak*   ***bogen***   *ga-rrabu-gurrme.*
Dj   grey-crowned.babbler   two   3-egg-layNP
      'Grey -crowned babblers lay **two eggs**.'

6.16 *Nga-**murrng**-bimbom*   ***na-mekke***.
W   1/3-bone-paintPP   MA-DEM
      'I painted **those bones**.' [OP 353]

Modifiers in such cases are always immediately before or after the verb. Where relevant their gender is governed by the incorporated head, as with the vegetable agreement with -*yerrng*- 'wood' in 6.14. The same possibilities for contextual refashioning of agreement exist as are found with external heads, such as the use of masculine for agreement with a

body part (which would normally govern neuter agreement) in the context of painting (see §5.5.3.1).

Ambiguities may arise in cases where the modifier can plausibly modify either the incorporated noun or another, external, head. Example 6.15 could potentially receive an alternative parsing in which *bogen* 'two' modifies *ngakngak*, with the meaning 'two grey-crowned babblers lay eggs'. This could be disambiguated by using a demonstrative outside *bogen* (thus *ngakngak bogen namekke garrabugurrme* 'those two grey-crowned babblers lay eggs'), but most often the ambiguity would be prevented by the use of intonational means to group *bogen* with either *ngakngak* or *garrabugurrme* according to whether the head was the free or the incorporated nominal.

More commonly, the problem is avoided by compounding the modifier with a repeated form of the incorporated root (6.17, 5.208, 5.209, 10.245, 10.249). This option is only available if the modifier is an adjective (see §5.4.3).

6.17   *Ngaye Nicholas   ngani-ngime-ng   ngani-**rurrk**-na-ng   **ngan-rurrk-makkaigen**.*
Dj   me   1ua-enter-PP   1ua-shelter-see-PP   VE-shelter-beautiful
          'Nicholas and I went in and had a look at the beautiful (new amenities) building.'

In addition to such clear-cut cases of modification by adjectives, numerals and demonstratives, there are cases where the headedness relations are less clear but the incorporated and external elements are nonetheless combined into a single referring expression.

First, a very frequent construction, particularly in making existential or thetic statements, is to incorporate a generic-type noun, and place a more specific noun next to the verb (6.18). Note that generic–specific constructions in which both generic and specific are represented by separate words in the same NP are common in Australian languages (see e.g. McGregor 1990:254 on Gooniyandi).

6.18   *Ga-**rrulk**-di   **an**-dubang.*
Dj   3-tree-standNP   III-ironwood
          'There's an ironwood tree there.'

Secondly, it is also common to modify the referents of pronominal prefixes by external material; particularly frequent is the construal of *bininj* 'person; Aboriginal person' with a pronominal prefix with the meaning 'we people':

6.19   *dja   **kan**-do-ng   bininj*
W   CONJ   3/1a-strike-NP person
          'and strikes us people down'

6.20   *Djerdedjerd   ka-wokdi,   **kan**-mulewa-n   bininj,*
E:D   black.faced.wood.swallow 3-talkNP   3/1a-inform.on-NP person

          ø-darrhm-eninj   kunj.
          3P-pop.head.up-IRR   macropod
          'When the black-faced wood swallow calls out it tells on us people; a kangaroo might have popped its head up from the grass (and hear the warning from the swallow).'

This strategy will also be used when the pronoun needs to be modified for restrictive emphasis, as in:

6.21   *Ngayi nga-kudji kan-ka-n!*
E:N   me   1-one   2/1(a)-take-NP
'Take just me!'

The constructional criteria for distinguishing such modificational constructions from simple 'doubling' of the pronominal prefix by an external pronoun (6.22), or of an incorporated noun by a synonymous external root (6.23), are not clear-cut. In principle we can appeal to adjacency, since the above modifying constructions always place the modifier immediately next to the verb whereas 'doubling' constructions need not (e.g. *nungka* and *ka* in 6.24), but in practice it is so common for clauses to be made up of simply a verb plus one external nominal that this criterion is often inapplicable. Impressionistically it seems to be the case that in modifying constructions the external material is more closely integrated with the verb in terms of intonation contour, but again we must await fuller studies of the intonational phonology before this claim can be established satisfactorily.

6.22   *Aleng ba-djal-yim-i.*
Dj   she   3P-just-do-PI
'She used to do that all the time.' [T 1.6]

6.23   *Dja   man-korle   ø-korle-kurrme-ng ...*
W   CONJ   III-bamboo.spear   3/3P-bamboo.spear-put-PP
'And she stacked bamboo spears ...' [OP 367]

6.24   *Nungka   man-korle ka-karrme   na-wern.*
E:N   he   III-spear   3-holdNP   MA-many
'He's holding a lot of bamboo spears.'

6.2.3 Referential status

Because pronominal prefixes for subject and object are obligatory and there are no alternations with intransitive constructions that allow suppression of the object argument, prefixes for third person pronominal object are not restricted to established or even referential entities. Both the third person higher animate object prefix *bi-* and the augmented prefix *bVn-* may be used for generic or new arguments, as well as for established participants where object pronominals would be appropriate in English. It is only by integrating the pronominal prefixes with material from an external nominal group (bare nouns, pronouns, possessives and demonstratives) that the referential status of these pronominal prefixes can be determined. This topic is further discussed and exemplified in §10.2.7, but for the moment we illustrate the problem with a single textual excerpt from the *Kunwinjku Spirit* corpus (Nganjmira 1997:4–6). The translation has been slightly adapted to make it more literal; in the couple of places where the alteration is relevant to the issue of referentiality, the original translation follows mine in square brackets.

6.25   Background: Yingarna, the Rainbow Snake ancestress of today's people, came
    across under the seas, and reached the island of Waminari, where:

a. *Ngaleng **ben**-yawme-y   **birri-wern** **birri-kuk-bu-buyika**   **bininj***
    she   3/3plP-bear.child-PP 3a-many   3a-body-REDUP-different person

dja   mayh.
CONJ   animal
'She gave birth to many strange people and animals,

b. *Birri-warre-ni   birri-kodj-buyika-ni   dja   birri-burrk-buyika-ni*.
3aP-bad-P   3aP-head-different-P CONJ 3aP-body-different-P
'ill-formed, with strange heads and bodies.' OR: 'They were ill-formed, they
had strange heads and bodies.'

c. *Minj   **ben**-marne-djare-niwirrinj,   wanjh ø-yime-ng:*
NEG   3/3plP-BEN-want-IRR   then   3P-say-PP
'She didn't like them, and said:

d. *"Ngaben-yawoyh-kuk-ngu-n, kaluk ngaben-djordm-ih-we   kore ku-njam"*.
1/3pl-again-body-eat-NP   later 1/3pl-grow-IVF-throwNP LOC LOC-stomach
"I'll swallow them again, and later I'll grow some more [them] in my belly".

e. *Kaluk yerrih   na-kudji man-djewk   **ben**-yawoyh-yawme-y,*
then   after   MA-one   III-rain   3/3plP-again-bear.child-PP
'The next year she gave birth again,

f. *Kaluk bininj   duninjh   na-wu   birri-djordm-inj   wurdyaw duninjh …*
then   person   real   MA-REL 3aP-grow-PP   child   real
'to normal people who grew up as proper children …'

Line omitted explaining how these children grew up to be the various tribes of the region.

g. *Yingarna   ø-wam   ø-durnd-i   kore ngalengarre   kun-red   Waminari*.
[name]   3P-goPP 3P-return-PP LOC 3femOBL   IV-place [place]
'Yingarna went back to her place at Waminari.

h. *Wanjh   **ben**-berd-djobke-ng   wurdwurd ku-mekke kun-red, dja*
then   3/3plP-penis-cut-PP   children   LOC-DEM IV-place CONJ

birri-dowe-ng.
3aP-die-PP
'Then she circumcised some children (some boys) at that place, but they died.

i. *Yerre   ngaleng ø-wam   Marrkolidjban dja   **ben**-berd-djobke-ng*
later   she   3P-goPP [place]   CONJ 3/3plP-penis-cut-PP

wurdwurd ku-mekke,
children   LOC-DEM
'Later she went to Marrkolidjban and circumcised some boys (to see if they
would be OK),

j. *kamak kun-ekke,   minj   ngad   karr**ben**-berd-djobke   kondah …*
good   IV-DEM   NEG   we   12a/3pl-penis-cutNP   here
and they were OK. (But) we don't circumcise people [circumcise] in this area …'

A wide range of translations for *ben* plus its accompanying external material are appropriate
in this passage.

The only straightforward examples of **anaphoric use** are in line c and the first occurrence
in line d; in both these cases there is no external material. The second occurrence in line d

receives an anaphoric translation in the KS translation ('grew them again in her belly') which is essentially a 'lazy pronoun' use pushing the boundaries of what counts as an identical entity in tracked discourse, given that a whole new set of children are involved.

Three of the remaining occurrences involve **new mentions**, namely the examples in lines a, h and i. In each of these cases a nominal group follows the verb. In the latter two cases this takes the form of a plural nominal with a spatial demonstrative (*wurdwurd kumekke* '(some) children at that place'), and in the former case there follows a lengthy nominal group of five or nine words, depending on whether one wants to analyse the material in line b as a separate nominal predication (as indicated by the alternative gloss offered).

In line e the translation is problematic; the translation supplied gives an English intransitive verb as the equivalent ('give birth' rather than 'give birth to people'), but equally valid would be a translation with a bare plural (e.g. 'gave birth to babies'). Either way, nominal material making the nature of the object clear is supplied in the next line.

Finally, line j exemplifies a **generic-object** use, which could be translated either with a bare plural generic noun, as I have done ('circumcise people'), or again with an intransitive English verb, as in the published translation. The generic-object use is extremely frequent. No external nominal appears in such circumstances.

The above text is typical in representing how far constructional means, in the form of conventional interactions between verbal-prefix and external nominal material, determine the interpretation of such pronominals. Prefixes not supplemented with external material may equally well be anaphoric or generic, while in the case of new mentions external nominals typically immediately follow the verb. The unfolding discourse context is as important in determining the interpretation as the presence and nature of immediate external material. Nonetheless, where precision is desired, generic interpretations can be forced by adding bare nouns, and specific anaphoric interpretations by adding free pronouns and anaphoric demonstratives. Examples of these will be given in §10.2.7.

6.2.4 *Profiled domain*

A fourth way in which verbal and nominal material enter into unificational constructions is in giving two 'takes' on the domain of application of the verbal predicate, with the verbal and nominal material delineating two concentric levels (one narrower, one broader) at which the predication applies.

Two types of construction need to be distinguished. First, in set–subset constructions, a construction of the type THEY.TWO-WENT THAT WOMAN for '(s)he and that woman went' is used. The pronominal prefix specifies the superset, and an external nominal specifies a profiled subset. The predicate is true both of the set and of the subset. Second, in part–whole constructions, a construction like THEY-EYE-BECAME.BIG THOSE WOMEN is used for 'the women's eyes grew big'. An incorporated nominal specifies which part of an entity is affected by the verbal predicate, while a pronominal prefix and, optionally, a free pronoun, profiles the 'whole' affected by the action. Here the predication only applies literally to the part, although it has implications for the whole (as effects on, or controlled parts of, the whole).

We discuss each of these in turn.

6.2.4.1 Set-subset constructions

The normal way of expressing 'X and Y', for core arguments of the verb, is to use a pronominal prefix referring to the whole set {X, Y}, supplemented by an external nominal referring to Y, which will be whichever member of the set whose presence the speaker does not take for granted.[4]

Consider the following two examples from the same Kunwinjku story [KS 406]. In the first example, which follows a few lines in which a man (*Nabinkullawa*) is introduced as a protagonist, the fact that he is living as a married man is introduced with a set–subset construction in which the pronominal prefix *bene-* 'they two' is combined with the external nominal group *daluk ngalmekbe* 'that woman/wife (of his)'.

6.26   *Wanjh* **daluk** **ngal-mekbe bene**-*re-y,* *bene-wam* *wanjh* *ngal-buyika*
W   then   woman   FE-DEM   3uaP-go-PI 3uaP-goPP then   FE-other

birri-m-wo-ng.
3a/3P-hither-give-PP
'Then he and his wife were going along (living), the two of them lived then he was given another (woman).'

The new young wife, Minaliwo, refuses to sleep with him, so that only the man and his older first wife sleep together. In the description of this situation the set is described by a pronominal prefix to both a verb (*beneyoy*) and an adjective (*benekare*), while the first wife is referred to by an adjective (*ngalkare*):

6.27   *Minj bene-yu-wirrinj burrkyak, djarre ngalengman ⌀-djal-yo-y.*
W   NEG 3uaP-sleep-IRR   no   far   3femEMPH   3P-just-sleep-PP

Med   bedman bene-yo-y   bene-kare,   ngal-kare.
later 3aEMPH 3uaP-sleep-PP 3ua-same.old FE-same.old
'They did not sleep together, no, she just slept off by herself. Then they slept together, the same old couple, (he and) the same woman (whom he had always slept with).'

Set–subset constructions are particularly common with reciprocal verbs like *narren* 'see (each other), meet' or *marren* 'marry (each other)' (§10.3.4):

6.28   *Ani-ma-rr-en   Al-mardgu*
Dj   1ua-marry-RR-NP   FE-[matrimoiety]
'I have to marry a woman of the Mardgu matrimoiety.' (i.e. 'We have to get married, me and some Al-mardgu woman.')

A special subtype of this construction is where the subset is actually divided off on a temporal basis; this is common when talking about old-time practices which 'we' (the speakers) still identify with but were actually only carried out by the subset denoted by the external nominal. Note that in this case it is only the subset, as denoted by the external nominal, to which the predication actually applies.

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4   Set–subset constructions are very common in Australian languages, though the exact form they take depends on the structure of the language: in dependent marking languages they will usually be realised by the juxtaposition of a free pronoun and a nominal, agreeing in case. For examples see Goddard (1982).

6.29   *Ba-bolk-ngei-yo-i,*   *arri-bolk-ngeibu-ni dabbarrabbolk gorrogo,   Gamirn.*
Dj   3P-place-name-lie-PI 1a-place-call-PI   old.people   before   [place]
        'It was called, our old people used to call it, *Gamirn.*'

6.2.4.2 Part–whole

The second sub-type of this construction involves an incorporated noun designating a part, and a pronominal prefix (and, optionally, an external nominal, as in the examples below) designating the whole.

The designated entity must be in an absolute relation to the verb, that is object or intransitive subject. Both 'part' and 'whole' are treated as having the same grammatical relation to the verb; their translation in English will sometimes be into two NP constituents (e.g. 'she touched me on the hand') and sometimes into one, with the whole expressed as a possessive adnominal phrase ('she touched my hand') or as a sequence of two nouns (e.g. 'crocodile tracks'). Their placement in the same grammatical relation to the verb parallels their treatment when they appear as isolated nominal groups (as in nomination, e.g. *namarn.gorl gunbarrebarnmo* [barramundi backbone] 'barramundi's backbone', *gunj an-djomborl* [kangaroo track] 'kangaroo track'); see §6.3.3 below for further examples.

Semantically, the predication in part–whole constructions need only be true of the part, but its consequences are potentially relevant for the whole. In saying, for example 'I-hand-entered the hole' for 'I put my hand in the hole', it is only true of the hand, not of the whole person, that they have entered the hole, but various potential consequences (e.g. death from snake-bite) are relevant to the whole person. Likewise, in 6.30 it is the hand rather than the whole of Nawamud that is waving, even though Nawamud himself is the one engaged in the activity construed as the communicative act of one person waving to another.

6.30   **Nawamud**   *ga-**bid**-wayda-n.*
Dj   [subsection]   3-hand-wave(INTR)-NP
        'Nawamud is waving (with) his hand.'

6.31   *Ba-**rrang**-barrme-ng*   **yau**.
Dj   3P-mouth-become.open-PP baby
        'The baby (bird) has opened its mouth (to be fed).'

6.32   *Ba-**milh**-dulubu-ni*   **na-bang**   **burl.**
Dj   3/3P-forehead-shoot-PI MA-dangerous bull
        'He would shoot dangerous bulls in the forehead.'

The 'part-whole' relation is interpreted in a broad sense to include relations of representation (e.g. name, voice, language, shadow) as well as spirit, products, tracks (6.33) and remains. This constellation is common in Australian languages (see Chappell & McGregor 1995).

6.33   **Ginga**   *barri-**barlah**-na-ni.*
Dj   crocodile 3a/3P-track-see-PI
        'They would see **crocodile slither-tracks**.' [T 4.27]

More detailed discussion of this construction is contained in §10.4.2.

6.3 Composition in the nominal group

As discussed in §6.1, referring expressions may be built up from a range of combinations of verbal and external nominal material. Representation on the verb alone, whether by pronominal prefix, incorporated noun or (more rarely) other number-marking affix, is the commonest option. Where nominal material is present, there is no constraint that a 'head noun' be present, and it is not uncommon for modifiers to occur alone, their head being supplied by information on the verb which may range from, minimally, information about person and number (6.34), to more precise referential specification supplied by incorporated nominals (6.14–6.16).

6.34   ***Nakka*** *yi-ngu-ø,*   *kaluk*   *nga-ngu-n.*
W   MAthis   2/3-eat-IMP   later   1/3-eat-NP
         'You eat this one now, I'll eat (something) later.'

In fact it is probably wrong to correlate the possibility of having no external head with the availability of specification on the verb. Modifiers in isolation can occur equally well for the third verbal argument of ditransitives, which lacks pronominal representation, and even when no incorporated nominal is present to serve as a head, as in 6.35:

6.35   *Kandi-wo-ø* ***man-kuyeng!***
W   2/1-give-IMP   VE-long
         'You give me the long (one)!'

Likewise, complement NPs which cannot be represented by any verbal material can be represented just by a modifier:

6.36   *Daluk*   *djama*   *ba-ra-yi*   ***gu-biya.***
Dj   woman   NEG   3P-go-IRR   LOC-other
         'The woman couldn't go to another (place).'

6.37   *ngan-yame-ng* ***man-kuyeng-dorreng.***
W   3/1-spear-PP   VE-long-with
         'He speared me with the long one.'

A more accurate statement, then, would be that any referring expression may be represented simply by modifiers, which will be construed as 'an X one' or 'an X place' according to the morphosyntactic context.[5] When the referring expression is also an argument, however, additional semantic specification may be achieved through information marked on the verb, as in the examples mentioned above.

Even when more than one nominal element is present, there is no requirement they be contiguous. Discontinuous expressions are particularly common when the modifier is a measure expression like 'big' (6.38), 'many' (6.39, 6.40) or 'bundles of, in bundles' (7.38), but also occurs with other modifiers such as possessive pronouns (6.3) and demonstratives (6.41). Whether these agree in gender with their head depends on the specific agreement rules for quantifiers in the particular dialect (§5.5.4).

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[5]   This is common, incidentally, in many Australian that lack any pronominal representation on the verb (see e.g. Dench (1995a,b) on Martuthunira).

6.38   *Na-marn.gorl   ga-garrme   na-gimuk.*
Dj   I-barramundi   3-catchNP   MA-big
     'He's catching a big barramundi.'

6.39   *Djabbo   man-korle   ∅-me-y   man-wern.*
W   quoll   III-bamboo.spear   3/3P-get-PP   VE-many
     'Djabbo the quoll got lots of bamboo spears.' [KS 120]

6.40   *Nungka   man-korle   ka-karrme   na-wern.*
E:N   3masc   III-bamboo.spear   3/3-haveNP   MA-many
     'He's holding a lot of bamboo spears.' [T 8.5]

6.41   *Bininj   yi-djawa   na-mekbe.*
Dj   man   2-askIMP   MA-DEM
     'Ask that man!'

Even when a series of words do occur together, there are no tight constraints on their ordering.[6] Demonstratives may precede or follow their heads: compare *nawu gunj* 'that kangaroo' (Text 1.39) and *gunj nawu* (Text 1.45), with no obvious meaning difference.

In strings containing a noun, demonstrative and other modifiers there is a tendency for the modifiers (whether adjective, numeral, possessive pronoun or classifier) to fall between the demonstrative and the noun,[7] as in *ngale ngarrku ngurrurdu* [FE:DEM our emu] 'that emu of ours' (Text 2.1). But there are plenty of cases where this does not hold, either because the demonstrative is placed on the opposite side of the head to other modifiers, as in *namege maih ngarrgu* [MA:DEM bird our] 'those birds of ours' (6.5), or because the demonstrative is actually placed between an adjective or quantifier and the head noun, as in the following examples:

6.42   *Gek,   well;   nga-wam,   a-wam   before, and   na-marn.gorl   na-mege*
W   I.say   1-goPP   1-goPP   I-barramundi   MA-that

     djenj   nga-rranjbom   durnbuhmanj.
     fish   1-spearPP   black.bream
     'I say, well, I went along before, and that barramundi fish I speared, [self-corrects] (a) black bream.' [MT Lungfish 68]

6.43   *Djirndih   ngal-u   na-yahwurdurd,   ba-yi-walkka-rri-nj.*
Dnj   quail   FE-that   MA-little   3P-COM-hide-RR-PP
     'That little quail hid himself away with it.' [T 2.57]

6.44   *Wanjh   ben-nguneng   birri-bu-buyika   na-wu   bininj*
W   then   3/3plP-eatPP   3a-REDUP-other   MA-REL   person
     'Then he ate (all) the other people.' [KS 40]

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6   This contrasts with a number of other Australian languages in which split and modifier-only NPs are possible, but where the ordering is relatively constrained when the words are contiguous (see McGregor (1990) on Gooniyandi, Dench (1995b) on Martuthunira, and Evans (1995c) on Kayardild, for example).

7   This is in conformity with Rijkhoff's (1992) findings concerning cross-linguistic tendencies in ordering within noun phrases, with the idealised and commonest order being as follows:
     Determiner   Quantifier   Adjective   Classifier   Noun

There is thus no reason to posit rules ordering nominal words when they occur as a contiguous group, since they are at best loose tendencies. In other words, nominal words have the same independence, when occurring as part of a contiguous group of words referring to the same entity, as they do when they occur as the sole nominal word, or in a discontinuous construction.

Against this anarchic background, however, some more-fixed orderings stand out. The root *-gudji* 'one' is polysemous between the indefinite meaning 'one, a certain' and the strictly numeral meaning 'one (no more)'. When it has the indefinite meaning it is always group-initial, as in Text 1.43 *nagudji djirndi* 'one (bird), quail (had hidden himself away with the backbone)' (see also Text 4.14–4.15; Text 8.8). On the other hand, when it has the numeral meaning it can (like the other numerals) have either order: *dird nagudji* 'one month' but *nagudji yau* 'one chick' in 13.5.

Likewise, in the possessed-noun construction, in which 'X's Y' is expressed as 'X Y-his', Y will always follow X. See §6.3.1 below for examples. The other possessive construction, using an oblique pronoun for the possessor, has no ordering restrictions.

I take these few ordering restrictions to represent the grammaticalisation of a few individual modifying constructions, but without the accompanying grammaticalisation of a full set of rules leading to the formation of a NP structure (cf. Himmelmann (1997) on the logical independence of various construction types within the NP).

We now pass to a number of important functions of referring expressions and see how they are realised within nominal groups, of varying degrees of structural conventionalisation.

6.3.1 Possessive constructions

Although there is a genitive suffix, this is only rarely used attributively, its most common use being in nominal predicates of the type X Y-GEN 'X is Y's, is for Y' (5.36–5.38). There are, however, occasional examples of attributive use:

6.45   *Yiman   ga-yime   barri-rurrk-name-ng,   bininj-genh   bogare   gun-njam.*
Dj   like   3-doNP   3a/3P-building-make-PP   person-GEN   urine   IV-guts

    ga-djuhme
    3-washNP
    'Like, they've made a building here for peoples urine and faeces, where they
    can wash.' [MT 12.7]

6.46   *Gaboyarrmeng   arri-bal-yerrga-ni   alengman   Namaddalk-gen.*
Dnj   [place]   1a-along-sit-PI   herEMPH   [clan]-GEN
    'We'd sit down at Gaboyarrmeng, her (country), belonging to the Namaddalk clan.'
    [MT 22.46]

In addition, of course, it is common to construct possessive phrases by juxtaposing an oblique pronoun either before or after the possessed noun, in either order (e.g. *ngarduk ngadjadj* 'my uncle', Dj *an-garre nuye* 'his custom').

Where the possessor is shown by a noun, a much commoner alternative to using the genitive is the structure shown in 6.47, where the possessed noun is followed by a possessive pronoun, and preceded by a nominative noun or pronoun representing the possessor (6.48–6.50; 7.27).

6.47   Possessor   Possessed   Oblique Pronoun

6.48   *djorrkkun*   *man-nguk*   *nuye*
E:N   rock.possum   III-shit   3mascOBL
 'rock possum's shit'

6.49   *dabbarrabbolk kun-wok*   *bedberre*
I   old.people   IV-language   3aOBL
 'the old people's language'

6.50   *Birri-Bunidj*   *kun-red*   *bedberre yiman kayime   Madjikkarra.*
I   3a-[clan]   IV-country   3aOBL   ...like...   [place]
 'The country of Bunidj people is like around Madjikkarra.' [GID]

Even though this is one of the more conventionalised orders, there is still some flexibility; there are examples where the noun representing the possessor is placed after the possessed noun (6.51), as well as examples where the possessor noun plus the oblique pronoun both precede the possessed noun (6.52). The only constant ordering factor is that the oblique pronoun always follows the possessor noun, though not necessarily directly.

6.51   *Djalabarn kun-red   Dad-dubbe   nuye.*
I   [place]   IV-home   [name]   3mascOBL
 'Djalabarn is the home of Dad-dubbe (the *mimih* spirit).' [GID]

6.52   *Mimih   nuye*   *duruk yiman Djabbarraboy.*
I   [spirit]   3mascOBL   dog   like   [name]
 'Djabbarraboy is, like, the *mimih* spirit's dog.'

Where the possessor is third person minimal, the construction in 6.47 may be used, but substituting the 'third person possessed suffix' *-no* (§5.3.1.1) for the oblique pronoun (e.g. *Kabbulay wurdno* 'Kabbulay's children', lit. 'Kabbulay children-his/her').

Kin terms have special 'third person possessed reference forms' (here abbreviated 3REF) which are usually formally distinct both from the vocative forms (§1.4.1) and from the reference forms combined with first or second person pronouns. Thus one uses *karrang!* to call one's mother, and would say *ngarduk karrard* to mean 'my mother', but in referring to the mother of a third person the form *ngalbadjan* (lit. 'II-great') is used. Similarly to call one's father the form *ngabba!* will be used, and 'my father' is *ngayeken ngabbard* (on the special regularised possessive form *ngayeken* see §7.1.3), but in referring to the father of a third person the 3REF form *kornkumo* will be used (e.g. 14.19). Presumably because these forms are inherently possessed, no possessive pronoun is used with them, and they may be simply juxtaposed with a noun referring to the possessor, as in *ngalbadjan Minaliwo* 'Minaliwo's mother' [OP 349], *Nym gorngumo* 'Nym's father' [MT 16.11]. Alternatively, the 3REF form may just be used alone, with the interpretation 'his/her X'; see Text 5.13 and 5.15 for examples of *kornkumo* being used with the meaning 'his father'.

6.3.2 Determination

Determination of nouns, in terms of marking whether they are given or new, definite or indefinite and so on, is not obligatory in Bininj Gun-wok. We saw in §6.2.3 that third person pronominal object prefixes to the verb can have a wide range of interpretations, extending

from situations where reference has been well-established by prior mention, to new mentions, to generic-object uses. Similarly, in §10.2.8 we will discuss the use of the third minimal 'higher object' prefix *bi-* even with non-referring objects in situations like 'he should have married *a Ngalngarridj woman*'. To an extent it is through the choice of external nominals that such distinctions are made. But here again there is considerable flexibility, and the means available are optional methods of being more precise, rather than necessary choices of the type associated with grammaticalised determiner use.

Let us begin by considering the use of bare nouns, that is the use of nouns as the only external nominal. Most commonly such uses are found:

(a)   where no specific reference is being made, whether with 'psychological objects', as in *barriwam **djilidjilih*** [they-went cane.grass] 'they went out (for) **cane grass**' [Text 1.10], or because the identity is unimportant, as in *birribom **bininj*** [they/him-killed person] 'they killed **a man**' and ***gundulk** barri-mey* [stick they/it-picked.up] 'they picked up **a stick**'.

(b)   where nouns are being used as proper nouns, as with the uses of the various bird names in the first text (e.g. *Wirriwirriyak ba-rrenge-mokni* [cuckoo.shrike 3-foot-was.sore] 'Black-faced cuckoo-shrike had a sore foot' — Text 1.8).

(c)   as subject complements, as in ***maih** barri-yimerranj* [bird they-turned.into] 'they turned into **birds**'.

But it is also possible to use bare nouns as definite expressions. This is particularly common with 'contextually given' uses, where the context is that of the speech act (6.53) or constructed by the interaction of the text with frame semantics (e.g. the use of *wurdurd* for 'the children, her children' in Text 1.7). But it is also found with established participants in linear narratives (6.54).

6.53   *Kabirri-dedj-ngolih-ngolihme   daluk.*
I   3a-bum-REDUP-move.hipsNP   woman
        'The women are shaking their butts in the dance.'

6.54   *Daluk   bi-kang   bi-yi-wam   Bumabuma   ø-marnburrinj*
I   woman   3/3hP-takePP   3/3hP-COM-goPP   [name]   3P-make-RR-PP

        warlang   wanjh.
        then   bat
        'He took the woman, went with her and then Bumabuma turned himself into a bat.' [GID]

More commonly, however, determination is made overt through the use of one of the many demonstratives (see §7.3 for examples), such as *namekke* 'that (aforementioned)' or *nakka* 'that (just mentioned now)', or by combining the noun with a pronoun, as in the following examples (see also Text 1.44).

6.55   *Birri-na-ng   ka-h-kodjkeyo   **nungka   karndakkidj**.*
I   3a/3P-see-PP   3-IMM-sleepNP   3masc   kangaroo
        'They saw the kangaroo sleeping.' [GID]

6.56   ***Nungga   nabininjgobeng*** *ga-ga-n   gun-bid-bogen.*
Dj   3masc   I-spouse   3-take-NP   IV-hand-two
        'And he, the husband, takes ten.'

6.57   ***Na-yuhyunggi bedda***   *werrk   barri-bukka-ng.*
Dj   I-first.people   3a   first   3aP-show-PP
       'The first people taught people how to paint first.'

The opposite possibility (i.e. the explicit treatment of an entity as a new mention is signalled by placing an appropriately prefixed form of the root *-gudji* 'one' before the modifier noun.[8] This use covers cases where a new entity is introduced (e.g. '(there's) a snake here!' (*nagudji nayin gayo*) in Text 4.15 or 'one (of the birds, a) quail' (*nagudji djirndih*) in Text 1.43), as well as situations where a referent is arbitrarily selected from a presumed referent set, e.g. 'one of the youths (*nagudji yawurrinj*) would be watching a track' (Text 4.14). Text 8, in which the narrator is pointing successively to a number of individual figures in a rock painting, includes several instances of 'one' being used in this way (lines 1, 8 and 9), in two cases following a use in the same clause of an emphatic pronoun, which there combines with 'one' to give the effect 'now this one here'.

6.3.3 Appositional elaboration

Pairs of apposed nouns frequently occur in isolated phrases, especially in nomination; they may be separated by a demonstrative. The relations are various, though always taking alternative labellings or perspectives on the same entity. The commonest types are:

(a)   'An X, which is/was a Y', as in I (*ngaleh*) *ngalyuhyungki ngurrurdu* '(that) ancestor emu', *Kodjok* (*namekke*) *nawernwarre* '(that) younger Kodjok brother' (i.e. (that) Kodjok, the younger brother one') [T 5.8].

(b)   'An X, called Y'; here Y usually comes first, as in Dj *algaihgo daluk* 'Algaihgo woman/women', Dj *Gorlonjdjorr an-rud* 'the Gorlonjdjorr (Deaf Adder Gorge) road'.

(c)   'An X, which is a type of Y' (e.g. *madjbalem kundulk* '*madjbalem* tree':

6.58   *Bene-wa-m   kore   madjbalem   kun-dulk   yiman   man-boyberre*
W   3ua-go-PP   LOC   [tree. sp.]   IV-tree   like   III-wild.apricot

       ø-barnem-wele-welm-i.
       3P-bunch-EXT-hang-PI
       'They came to a *madjbalem* tree with fruit hanging down from its vines.' [KS 38]

(d)   'An X, which is a transformation or sign of the presence of Y'; here either order is found (e.g. Dnj *djang kurdukadji* 'emu dreaming [*djang*]' and Dj *gunj an-djomborl* 'kangaroo pad; pad made by the passage of kangaroos').

(e)   'An X, which is a part of Y' (e.g. Dj *an-ngui an-dangdang* 'flower of *Eucalyptus ferruginea*', Dj *gun-mim an-djimdjim* 'seeds of water pandanus', Dj *namarngol barrebarnmo* 'barramundi('s) backbone'). This appositional construction is mainly found in western dialects; in eastern dialects the part noun is marked with the part suffix *-no* (§5.5.2.5) and follows the noun designating the whole, so that 'flower of *Eucalyptus ferruginea*' would be rendered in Kune as *man-dangdang ko-no*. Note also

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[8]   For a discussion of the use of 'one' as an 'indefinite determiner' in a range of Australian languages, in ways that closely parallel the situation in Bininj Gun-wok, see McGregor (n.d.).

that where the whole is designated by a compounding root, whole–part compounds are used instead of appositionsee §5.4.2).

(f)   'An X, made of Y' (e.g. Dj *an-bornde gun-yarl* 'banyan (bark) string', W *mandulk borndok* 'acacia-wood spearthrower').

(g)   'An X (measure or group) of Ys', e.g. Dj *gun-mogen ngan-gorle* 'a bundle of bamboo spears'.

When integrated into a clausal unit, part-whole pairs usually get separated through the incorporation of the part noun into the verb (§10.4.2). The remaining appositional pairs, however, are simply juxtaposed in the clause as well:

6.59   *Wurningak   kun-wok   birri-wokdi.*
W   Urningangk   IV-language   3aP-speakP
        'They spoke the Urningangk language.'

6.60   *Bi-wo-ng   gorn.gumo   gun-ngei   Gurlumirridj.*
Dj   3/3hP-give-PP father3REF   IV-name   [name]
        'Her father gave her the name Gurlumirridj.'

6.61   *Baleh   na-wu   wurdyaw   Wurrakkak?*
W   where   MA-REL   child   [name]
        'Where's that baby Wurrakkak?' [KS 22]

6.3.4 *Conjunctional elaboration*

Conjunction translatable by 'and' is commonly expressed by simple juxtaposition of the conjuncts under a listing intonation (6.62, 6.63). See Text 1.9 and Text 1.65 for further examples.

6.62   *Bi-ngu-ni   bi-yakwo-ni   kun-berl kun-dad.*
W   3/3hP-eat-PI   3/3hP-finish-PI IV-arm   IV-leg
        (of a cannibal:) 'He was eating and finishing an arm, and a leg.'

6.63   *Anabbarru   lendo, djama   marrek gonhda ba-di-wirrinj. Gu-behni   marrek*
Dj   buffalo   horse NEG   never   here   3-stand-IRR   LOC-here   never

        ba-di-wirrinj.   Gunj,   gornobolo,   yok,   ngal-wanjdjuk.
        3P-stand-IRR   kangaroo   agile.wallaby   bandicoot   II-emu
        (before the white man came:) 'Buffaloes, horses, they were never here. They were never 'here. (Just) kangaroos, agile wallabies, bandicoots, and emus.' [MT 7.36–39]

The conjuncts in such list structures may be split by the verb:

6.64   *... kun-kerri   ø-ma-ngi,   kun-yerrng*
W   IV-cooking.stone 3/3P-get-PI IV-wood
        '... he got cooking stones, and firewood'

It is also possible to signal conjunction overtly through the conjunctions *la* (W, I, E, MM) or *dja* (W, Dj). Both of these can also be used to conjoin elements of other ranks (e.g. clauses), and *dja* can also mean 'or' (see below). When conjoining nouns or nominal groups, these

conjunctions are particularly common with, though certainly not restricted to, elements that in some way form a linked pair rather than simply an incidental grouping (see also 10.205):

6.65   *Man-bardbard*   *la*   *man-dadjek*   *kabene-djarrk-nguybu-n.*
I   III-heliosperma   CONJ   III-pteridifolia   3ua-together-flower-NP
      'The *Grevillea heliosperma* and the *Grevillea pteridifolia* flower together (at the same time).'

6.66   *Wurdwurd*   *dja*   *teacher* *kabirri-kuk-djarrangbu-n*   *kabirri-kurrme*
W   children   CONJ   3a/3-body-sort-NP   3a/3-putNP

      na-yahwurd   *dja*   *na-kimuk.*
      MA-small   CONJ   MA-big
      'The children and teacher sort out the fish into big and little groups.'

The English loan 'and' is also used, though under rather different conditions from those in the donor language: it simply marks the following word as part of a set of conjuncts, without requiring that it not have been mentioned previously. The second 'and' of the following example precedes *nabulanj*, the name of speaker's father (mentioned as *ngabbard* in the first line), but this time as part of a different subset-grouping (i.e. having grouped by husband and wives, the new grouping is by father and children).

6.67   *Ngabbard*   *and* *garrard,* *bene-boken,* *al-wakadj,* *al-wakadj* *boken*
W   father   mother   3ua-two   II-wakadj   II-wakadj   two

      and   *na-bulanj*   *na-kudji*   *and*   *ngayi* *na-bangardi,* *and Peter and Jack.*
           I-bulanj   MA-one   me   I-bangardi

      Ngarri-djal-travellingman   *kure*   *bikibiki*   *ngan-ngorrme-y*
      1a-just-travel   LOC   pig   3/1-pick.up.on.shoulders-PP

      halfway long the road.
      'Father and my two mothers, the two *al-wakadj*, the one *nabulanj* (i.e. my father) and me, *na-bangardi*, and Peter and Jack. We just kept travelling till we got to a place where a pig lifted me off the ground on his shoulders dead in the middle of the road.' [MT Jacky Namarndala, Lungfish]

'Or' can be expressed in a number of ways. Firstly, the conjunction *dja* may also be used with this function, for example:

6.68   *Galuk danjbik dja*   *bogen bani-lobm-i gunak-dorreng*
Dj   then   three   CONJ   two   3uaP-run-PI   fire-with

      bani-wurlh-wurlhge-yi
      3uaP-ITER-light-PI
      'Then two or three would run around with a firestick and set fire (to the shelter).' [T 4.8]

Secondly, each alternative can be accompanied by the word *gare* 'maybe' (7.124), *yigah* 'some; in some cases' (6.69) or *yiman gayime* 'like; for example' (6.70):

6.69   *Gorrogo bininj* *barri-worrm-i barri-m-re-i,*   *na-meg-be*   *PineCreek-be*
Dj   before   person   3aP-swim-PI   3aP-hither-go-PI   MA-that-ABL   -ABL

yiga,   *Gunbarlanja-be*   *yiga*   *barri-m-re-i,*   *still*
some.cases   Oenpelli-ABL   some.cases   3aP-hither-go-PI

barri-warrm-i *barri-djuhm-i* *bularl,*
3aP-swim-PI   3aP-bogy-PI   stringybark
'In the old days people used to come swimming across, they used to come across from Pine Creek or from Oenpelli, they'd still paddle across, using a stringybark raft.'

6.70   *All right,* *na-mege* *bininj* *bi-djal-gadju-ngi,* *bi-marne-bebm-i*
Dj   all.right   MA-DEM man   3/3P-just-follow-PI   3/3P-BEN-appear-PI

yiman gayime   *gonhda* *yiman gayime* *Katherine,* *yiman gayime*
...for.example...   here   ...for.example...   ...for.example...

Roper, *yiman gayime*   *Borroloola,* *yiman.gayime* *Daly River.*
      ...for.example...   for.example
'All right, that man would keep following him, until he would come upon him here, or at Katherine, or at Roper, or at Borroloola, or at Daly River.'

Finally, the conjunction *o*, from the English word 'or' is frequently used, though the conditions on its use are more like those on the three forms mentioned above, so that 'or, X for example' is often a better translation:

6.71   *But* *djang*   *barri-yim-i* *dabbarrabbolk* *korroko* *old people* *yiken,*
Dnj   dreaming 3aP-say-PI old.people   before   again

ngabbard *ngaye-ken* *o*   *makka* *ngaye-ken.*
father   1-GEN   or   FM   1-GEN
'But the old people, before, said it was dreaming, for example my father or my father's mother.'

6.3.5 Expansion by adjoined verbs

Nominal groups are often expanded by adding inflected verbs, which typically have a relative clause reading. Although relative clauses are typically made overt through the use of the 'relative demonstrative' *nawu* (§14.3), this is not always the case, particularly when the verb is so frequently used that it is on the border of being lexicalised as a deverbal nominal (§5.6), which removes the need for the use of a relative demonstrative. The verb 'promise', for example, is frequently used in groups expanding *daluk* 'woman', with the meaning 'promised wife', but structurally 'woman they/he-him-promised'.

6.72   *Kum-h-wam*   *nungkah* *ø-djare-ni* *bi-me-yinj*
W   3Phigher-IMM-goPP he   3-want-PI 3/3hP-marry-IRR

ngal-ekke ngal-bu *ngal-yawk* *nuye-ni*   *birri-berrebbom* *bi-ka-yinj.*
FE-DEM FE-REL   II-girl   3mascOBL-P 3a/3P-promisePP 3/3hP-take-PP
'He came and wanted to marry that girl of his who they'd promised he could get.'
[KS 202]

6.73   *Nga-re* *ngaben-na-n ba*   *nga-ma-ng* *ngal-bu* *ngardduk* *daluk*
W   1-goNP   1/3pl-see-NP so.that   1/3-get-NP FE-REL 1OBL   woman

ngandi-berrebbom.
3a/1-promisePP
'I'll go and see if I can marry that woman they've promised me.'
OR: 'I'll go and see if I can marry that betrothed woman of mine.' [KS 202]

When verbs modify non-core arguments the relative demonstrative is in any case never used (§14.3), as with the verbs meaning 'we see our faces' and 'we wash our clothes' in the following example:

6.74	*Ga-garrme*	*bathroom*	*baddumang*	***arri-geb-na-rr-en,***
Dj	3-haveNP	bathroom	mirror	1a-face-see-RR-NP

	and	*gukku*	*ba*	***arri-djuhme,***	*gure*	***ngarri-madj-djirridjbu-n.***
	and	water	so.that	1a-washNP	LOC	1a-swag-wash-NP

'It's got a bathroom and mirrors where we see our faces, and water so that
we can have a wash, where we can wash our clothes.'

Mention should also be made here of the frequent use of the verbs *ngei-yo* [name-lie] 'be called' and *ngeibun* 'name', appropriately prefixed for subject, to introduce names and typically to identify the group or language using the particular name:

6.75	*Bedda*	*nangamed,*	*Nangarridj Nabolmo Nangarridj,*	*Fred*	*balanda*
Dj	they	who	Nangarridj Nabolmo Nangarridj		*balanda*

	ba-ngei-yo-i.	*Fred*	*whiteman*	*name,*	*bininj*	*barri-ngeibu-ni*	*Namiyilk,*
	3P-name-lie-PP				Aborigine	3aP/3-call-PI	[name]

that Aborigine name. That Nangarridj been second with Old Charlie Barramundi.

'They, him and whatsisname, a Nangarridj man, a Nangarridj man of the Nabolmo clan, Fred was his *balanda* name, Fred was his whiteman name, Aboriginal people used to call him Namiyilk, that was his Aboriginal name. That Nangarridj used to be old Charlie Barramundi's offsider.'

Another type of expansion where finite verbs are simply adjoined after a head noun involves phrases like 'the long story of my distant travels and how I grew up', which can be phrased as 'the long story my I went far I grew up'; see §14.6 for further discussion of such examples.

6.4 Adpositional groups

Prepositions and postpositions are not normally found in Australian languages,[9] but the existence of small sets of prepositions is an areal feature of north-western Arnhem Land. Iwaidja, for example, has four prepositions (Pym & Larrimore 1979). Bininj Gun-wok has a small set of adpositions: three prepositions, and three locationals that, although normally used as independent adverbs, are sometimes used postpositionally.

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[9] Although in some cases the border between phrasal suffix and postposition may be hard to draw: see, for example McGregor (1990) for an analysis treating Gooniyandi case markers as postpositions rather than suffixes.

Prepositions are prosodically integrated with the word they adjoin, with which they always form a single intonational contour. Although they most commonly combine with a single word, they sometimes combine with multi-word nominal groups, whose internal composition reflects the features discussed in §6.3; examples are *gure gured bedberre* 'to their camp', *gure man-garre ngadberre mulil* 'at our funeral corroborees' (6.84) and *yiman gunrurrk djukdjuk* 'like chook houses' (6.97). Postpositions have their own word-stress but form part of the same intonational contour. Each can also function as an independent locational, in which case they are positionally free, but when they are used relationally (i.e. with a noun as one of their arguments) they will have a defined position.

6.4.1 Prepositions

6.4.1.1 Location gure/kure/kore

This has a semantic range that covers all sorts of location (e.g. at, in, on, inside) and direction (into, onto etc.) as well as, under certain conditions, goals of transfer verbs (e.g. give something **to** someone). The form *kore* is limited to Kunwinjku (where it is the only form) and Kuninjku (where it alternates with *kure*); elsewhere just the form *gure/kure* is used.

It seems likely this preposition originated as a reduced form of *ku-red* [LOC-place/camp], with the Kunwinjku form *kore* lowering its first vowel by ablaut. Synchronically *kure* and *kured* are distinct and there is no restriction on using them together (e.g. Dj *gabarribodelenggan* **gure gured** *bedberre* '(the birds) are carrying the water (in their crops) back **to** their **camp**.)'

The semantic range of this preposition overlaps to a great extent with the locative prefix *gu-/ku-*, and the locative suffix *-ga/-kah*. Of the three, however, the preposition has the widest combinatorial possibilities, since it is the only one that can combine with all nominal sub-classes. For example, it can combine with place names (6.76, 6.77), other proper names such as the names of ceremonies (6.78), locationals (6.79) and pronouns[10] (6.80), none of which may combine with the locative prefix or suffix.

6.76   *Wanjh   bene-munkewe-ng   kore   Manawukan.*
W   then   3uaP-send-PP   LOC   Maningrida
       'Then they sent it to Maningrida.' [OP 448]

6.77   *Warradjan ... Kun-dedj   ka-rrudje-rr-en   ka-rrabu-dudje.   Kure*
I   [turtle.sp.]   IV-rear   3-bury-RR-NP   3-egg-buryNP   LOC

       Mikkinj   na-wern
       [place]   MA-many
       'The pig-nosed turtle ... It buries its rear end and lays eggs in the ground.
       There are many in Mikkinj valley.'

6.78   *Barri-ngime-rr-inj   gure   Djabururrwa.*
Dj   3aP-enter-RR-PP   LOC   [ceremony]
       'They've been through the Djaburdurrwa (Yaburdurrwa) ceremony.'

6.79   *Birri-bekka-ng   ka-h-wowm   kure   kaddum.*
I   3a/3P-hear-PP   3-IMM-call'wow'NP   LOC   up.high
       'They heard him call out "wow" from up the top.'

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10   Only in the eastern dialects can pronouns bear the locative suffix; see 5.65 for a Narayek example.

6.80   *Bedda   bene-wakwa-m   minj bene-na-yinj ka-m-lobme-ng   kore   bedda.*
I   they   3uaP-not.know-PP   not 3uaP-see-IRR 3-hither-run-PP LOC   them
       'And they didn't know and didn't see (the buffalo) running straight at them.'

It is also the only means for expressing location in dialects like Gun-djeihmi where the sense of the *-ga* suffix has contracted away from pure location, with nouns incapable of taking the locative prefix, such as the zero-class nouns *djamun* (6.81) and *bininj* (6.82), and the Class II noun *ngalbadjan* (6.83).

6.81   *Ganmani-weiga-ng gure djamun.*
Dj   3/1ua-hand.over-PP LOC police
       'He handed the two of us over to the police.'

6.82   *Nungga   an-ga-ng   gure bininj   gabarri-mirnde-rri arri-weleng-wokda-nj.*
Dj   3masc   3/1-take-PP LOC person 3a-many-standNP   1a-then-talk-PP
       'He took me to a group of people and then we started talking.'

6.83   *ø-durnd-i   kore ngal-badjan.*
W   3P-return-PP   LOC II-mother3REF
       'She went back to her mother.' [OP 423]

It is also used with Class III and IV nouns, for which prefixation with *gu-/ku-* is a formal possibility, when the location is at least partly metaphorical, e.g. participation at an event:

6.84   *Wanjh   mago   nga-buhme-ng, gure   man-garre   ngadberre mulil,*
Dj/w   then   didgeridoo 1/3-blow-PP   LOC   III-ceremony 1aOBL   funeral

       yiman gayime   gu-bu   na-marnde ga-rrowe-n.
       ...for.example... LOC-REL I-corpse   3-die-NP
       'Well I started to play the didgeridoo, at our funeral ceremonies, like when thereis a corpse, when someone dies.'

Although the examples given so far have contained this preposition as the sole marker of location, it is not incompatible with the locative prefix, and many examples contain both (e.g. 6.85, 6.86); more rarely it combines with the vegetable-locative prefix *mi-* (§5.2.2.3), as in 6.87. Only rarely, and only in Kune, does it combine with the locative suffix *-kah* (6.88).

6.85   *Gun-dulk   ba-djardahme-ng gure   gu-rakmo.*
Dj   IV-stick   3P-get.stuck-PP LOC   LOC-hip.bone
       'A stick has got stuck in the wheel housing.'

6.86   *Borlokko   ba-rrukka-rr-inj gure gu-rrulk.*
Dj   water.python 3P-tie-RR-PP   LOC LOC-tree
       'A water python has coiled itself up in a tree.'

6.87   *Nga-warnyak   nga-yo   kure mi-kurrambalk.*
I   1-not.want   1-sleepNP   LOC VEG.LOC-house
       'I don't want to sleep inside the house.' [GID]

6.88   *Murray   ø-wam   kure   Mankorlod-kah.*
E:N   [name]   3P-goPP LOC   [place]-LOC
       'Murray has gone to Mankorlord.'

In certain cases it is possible to take advantage of two coding sites to express certain distinctions. Thus in Gun-djeihmi *gure gu-wardde* [LOC LOC-rock] means specifically 'in the cave', whereas the combination of the locative preposition with the Class IV prefix means 'on/at the rock(s)', as in:

6.89   *Mimih   ga-h-barndi   gure   gun-wardde.*
Dj   [spirit]   3-IMM-be.high   LOC   IV-rock
        'The mimih spirit is on top of the rocks.'

A couple more uses of this preposition bear mention. Firstly, occasionally it is used to join locationals to one of their arguments (e.g. *darnkih kore ngad* 'near to us') [OP 415].

Secondly, in cases where the indirect object cannot be expressed by the object pronominal prefix, because this slot has been usurped by a direct object higher in animacy than the object (§10.5), the indirect object is expressed by a free pronoun preceded by the locative preposition (6.90). The same goes for cases where the alignment of person values with objects prevents the comitative applicative being used; here, too, the preposition is used to indicate the location (6.91–6.93).

6.90   *An-yirrukme-y   gure   nungga.*
Dj   3/1-steal.from-PP   LOC   him
        'He stole me from him.'

6.91 a. *Aban-daluk-yi-warlkka-ng.*   b.   *An-warlkka-ng gure bedda.*
Dj   1/3pl-woman-COM-hide-PP   3/1-hide-PP   LOC   them
        'I hid the woman with them.'   'He hid me with them.'

6.92   *Ban-warlkka-ng gure aleng / aye.*
Dj   3/3plP-hide-PP   LOC   her   me
        'She hid them with her/with me.'

6.93   *Aban-daluk-yi-bawo-ng.*
Dj   1/3pl-woman-COM-leave-PP
        'I left my wife with them.'

6.94 a. *Ban-bawo-ng   gure   aleng.*   b.   *Bi-bawo-ng   gure bedda.*
Dj   3/3plP-leave-PP LOC   her   3/3hP-hide-PP LOC   them
        'He left them with her.'   'He left her with them.'

Thirdly, in a very few cases the preposition is used with arguments which are nonetheless registered as objects on the verb; in all such cases they have some sort of goal role:

6.95   *Bi-rrelme-ng   kore   Kodowele.*
W   3/3hP-throw-PP LOC   [name]
        'He threw things at Kodowele.' [OP 442]

Fourthly, the preposition is commonly used to introduce a range of subordinate clause types, including relative clauses of location, complements, and temporal adverbials with the meaning 'while' (for more examples see §14.3–§14.4).

6.96   *Wolewoleh   nga-wa nga-na-ng kabokab   kure djenj ø-wolohme-ng.*
I   yesterday   1-goPP   1/3-see-PP water.ring LOC fish   3P-snap-PP
        'Yesterday I saw expanding rings in the water where a fish snapped.' [GID]

6.4.1.2 yiman 'like'

This preposition most commonly introduces expressions of similarity:

6.97 *Patonga an-rurrk-yahwurd, an-rurrk-warre, yiman gun-rurrk djukdjuk.*
Dj [place] VE-shelter-small VE-shelter-bad like IV-shelter chicken
'At Patonga the houses are small and useless, like chicken houses.'

6.98 *Rarrbu birri-yirrkbom mayh korroko birri-karrme-ninj*
I quartzite.tools 3aP/3-cut.upPP animal before 3a/3P-have-IRR

man-kole njamed yiman barrawu.
III-spear what like shovel.nose.spear
'A long time ago they used to cut up animals with quartzite tools and they had spears like shovel-nose spears (i.e. which they used to kill the animals).' [GID]

6.99 *Ngarri-ngu-n, ba ka-banj yiman kordduk.*
I 1a/3-eat-NP so.that?[11] 3-smell like shit
'We eat it (cycad flour) but it smells like shit.'

Occasionally it follows rather than precedes the modified noun:

6.100 *Nani nawu na-yungki ngad karri-ngeybun, bininj, yo*
I MA:DEM MA:REL I-first we 12a-callNP person yes

nakka kan-h-ngu-yi na-bang na-bang, na-bang na-yuhyungki
MA:DEM 3/1a-IMM-eat-IRR MA-dangerous (x 3) I-founding.ancestor

Mongerrh kun-waral yiman.
[name] IV-spirit like
'He is someone from creation times, we call him (like that), a human form but he eats people, and he's dangerous, very dangerous, Mongerrh is like a spirit.'

The compared entity may be an incorporated noun:

6.101 *Yaukyauk ga-bed-di yiman djenj.*
Dj seahorse 3-tail-standNP like fish
'Seahorses have tails like a fish's.'

As with English 'like', *yiman* may mean 'for example, such as' (6.102). The collocation *yiman gayime* is also frequently used with this meaning (Text 9.10):

6.102 *Manme ka-h-ngu-n yiman man-djulurkkun wanjh ka-kinje*
I III-food 3-IMM-eat-NP like III-[berry.sp.] then 3/3-burnNP

ka-birle-ka-n.
3/3-light-carry-NP
'(The firefly) eats food like the Antidesma berries and then burns it and produces the light.'

Yiman may also be used to introduce exemplifying clauses:

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[11] The semantics of *ba* seems out of place here, and it may be a mistranscription of English 'but'.

6.103   *"Dedjnjengh   kan-wo   djenj", yiman   kabirri-djanohme.*
I   [interjection]   2/1-giveIMP fish   like   3a-bludgeNP
         'For example if they're bludging off someone they (Gun-dedjnjenghmi speakers)
         say "*Dedjnjengh*, give me some fish".' [GID]

6.104   *Cooinda Hotel,   wanjh gu-mege   gun-bang   ngarri-h-bo-ma-ng,*
Dj   then   LOC-DEM   IV-grog   1a/3-IMM-liquid-get-NP

         bu   gabarri-bo-ma-ng,   yiman bininj   ga-garrme   gun-warde.
         REL   3a-liquid-get-NP   like   person   3/3-haveNP IV-money
         'Cooinda Hotel, there where we get grog, where they get grog, like if someone
         has money.'

It is also frequently used in giving definitions and explanations:

6.105   *Yo,   yuk-no   na-mekke yiman   man-kung yi-bengka-n,*
I   yes   liquid.honey-PRT MA-DEM   like   III-honey 2/3-know-NP

         bo-no   na-wu,   na-mekke ngarri-marnbu-n ngarri-bongu-n.
         liquid-PRT MA-REL   MA-DEM   1a/3-make-NP   1a/3-drink-NP
         '*Yukno* that's like honey, you know, the liquid part of it, that's the part we drink.'
         [GID]

The collocation *yiman bonj* is used to refer to a gesture or demonstration given in
illustration:

6.106   *Bi-djal-berl-karrme-ng la   ∅-djal-mey   kun-dulk   yiman bonj*
I   3/3hP-just-arm-grab-PP CONJ   3/3P-just-getPP IV-stick   …like.this…

         kunekke   ka-yime.
         NEU:DEM   3-doNP
         'He just grabbed him by the arm and just got a stick, just like this (shows size
         with hands), that's how it was.' [GID]

Kunbarlang, the Gunwinyguan language immediately to the north of Bininj Gun-wok, has an apparently
cognate form *yimarna* 'resemble, like' (Coleman 1982), whose exact word-class status remains to be
investigated. Note also the resemblance to the counterfactual particle *yimanek*, discussed in §13.11.1; many
Australian languages have similar forms representing 'similarity', 'mistake' and 'counterfactual' (Breen 1984).

6.4.1.3 bu *'concerning'*

The commonest form of this word is as a generalised clausal subordinator expressing
meanings like 'when' and 'if' (see Chapter 14). In some cases the subordinate clause it
combines with is reduced to a single nominal word (analyseable as a nominal predicate, with
the subject nominal ellipsed), so that one is not forced to analyse it as a preposition:

6.107   *Ngarri-yauh-re gu-bolk-buyiga, yarrkga bu   djandi.*
Dj   1a-again-goNP   LOC-place-other anything SUB week
         'We'll go to a different place, anytime (when it's) some other week.'

In other cases, however, no such analysis can be plausibly made, so that it behaves like a
genuine preposition with the meaning 'concerning; as far as X is concerned':

6.108   *Bu*   *ngudda.*
I   concerning   you
        'That's up to you.' [GID]

6.109   *Bu*   *kun-wardde-kenh.*
W   concerning   IV-money-GEN
        'Now, about money.' [E&E 10]

6.4.2 Postpositions

A number of locationals (§4.2.5) can be used as postpositions when locating a figure with respect to an overtly nominated ground. As mentioned above, each can also be used as a locational adverb (e.g. *ganjdji* can mean 'down, below, inside'), in which case the position is free within the clause, but when they are used to locate one object with respect to another they will always follow the 'ground' noun.

6.110   *Ganjdji*   *ga-guk-gurrme,*   *ga-h-yo,*   *galuk   ganjdji, gure gu-wukku.*
Dj   under   3-body-putNP   3-IMM-lieNP   later   inside   LOC   LOC-water
        'He puts the body underneath to lie, then inside, where it's in the water.'

6.111   *balabbala   ganjdji*
Dj   table   under
        'under the table'

Compared to the semantically parallel locative suffixes such as *-gadi* 'on top' or *-burrk* 'in the middle' the locative postpositions are less integrated phonologically, still being able to receive a separate word stress even though they have become positionally restricted.

Depending on the word they modify, the locative postposition may be the sole indicator of location, or it may combine with the locative prefix *gu-* (where this is allowed), and/or with the preposition *gure*. Most can also be used as independent adverbials or nominals.

6.4.2.1 ganjdji/kanjdji 'inside, underneath'

As discussed in §5.2.2.1, the ongoing grammaticalisation of *kururrk* with the meaning 'inside' leaves *ganjdji/kanjdji* with a contracting semantic range in the 'inside' domain in some dialects, though the 'underneath' meaning remains unchallenged.

6.112   *ku-korlkorl*   *kanjdji*   *nga-yo-ø*
E:D   LOC-windbreak   inside   1-sleep-NP
        'I sleep inside the windbreak.'

6.113   *Yi-ni-n*   *kure kurrambalk kanjdji.*
W   2-sit-IMP   LOC house   inside
        'You're sitting inside the house.' [KH 20]

6.4.2.2 gaddum ~ gaddung/kaddum 'on top of'

The corresponding location means 'high, up (high)'. The variant *gaddung* is restricted to Gun-djeihmi, where it is found in some speakers only.

6.114   *balabbala   gaddung*
Dj   table   top
        'on top of the table'

6.4.2.3 darn.gih-djam *'next to'*

In all dialects *darn.gih/darnkih* functions as a locational adverb meaning 'nearby', but the postpositional use of *darn.gih-djam* is confined to Gun-djeihmi:

6.115   *balabbala   darngih-djam*
Dj   table   next.to-LOC
        'next to the table'

6.5 Clitics to nominal groups

There are a number of clitics which, though predominantly found after nominal groups, can also be attached to, and have semantic scope over, other word classes: *=warridj* 'also, too', *=wi* 'only' and *=duninj* 'real(ly), proper(ly)'. These are discussed in §13.8 along with other clausal clitics.

In this section we discuss *=wali* 'in turn', the only true clitic that appears to be totally restricted to nominal groups. We also examine two quantifier-like words which, if they appear in a nominal group, will always be in final position, and display some clitic-like characteristics.

6.5.1 =wali *'in turn'*

Most commonly this clitic attaches to emphatic pronouns (see §7.1.3 for further examples):

6.116   *Yi-m-lobme-n   yi-m-lobme-n,   yi-m-ra-y,   yim-ra-y,*
I   2-hither-run-IMP 2-hither-run-IMP 2-hither-go-IMP 2-hither-go-IMP

         yim-ra-y,   ba   yingan=wali   yi-libme.
         2-hither-go-IMP so.that 2EMPH=in.turn 2-lickNP
         'Quick come over here and you have a turn to lick (the honey).' [T 6.71]

However, it can also combine with any nominal word; an example is *Moses=wali* 'Moses' turn'.

6.5.2 rowk/rouk *'all'* and ngong *'mob'*

These two quantifying words both have the syntactic peculiarity that they must be breath-group final, and can never occur as free-standing nouns. *Rowk/rouk* always receives its own stress, but is rhythmically and intonationally linked to the preceding word; it can follow nouns, adjectives or verbs. *Ngong*, which is restricted to Kune and Manyallaluk Mayali, only comes at the end of nominal groups, and is phonologically integrated to different degrees in different dialects.

In the case of *rowk/rouk*, it can occur either as the last element of a nominal group, with the meaning 'all' (e.g. *bininj rowk* 'all the men', *yehyeng rowk* 'all of creation', *kamak rowk* 'everything OK'), or directly after a verb, in which case it can have scope over either subject or object, according to context (W *birridowerrinj rowk* 'they (have) all died' (cf. a parallel Dj example in 11.42), Dj *barringuneng rowk* 'they ate it all' or 'they all ate it'). Sometimes it can have the meaning 'all over' rather than quantifying any particular argument, as in Text 1.21 *gunnud gurlba birrelkgeng rouk* 'blood and pus spattered him all over'. Numerous examples of *rouk* occur in Text 1. Text 5.2 contains an unusual example of it being used with the meaning 'both', the dual number being given by the pronominal prefix to the verb.

Ngong may be a Dalabon loan, since an identical form is found there. It basically means 'mob' or 'lots of', and can be used after nouns to mean 'lots of N' (e.g. Kune Narayek *doweng djirrbili ngong* 'lots of *djirrbili* fish died' in Text 7.1). In Manyallaluk Mayali it has clitic status, lacking an independent stress (e.g. *jatdih=ngong* [frog=mob] '(all the) frogs', *wurdurt=ngong* 'children').

7 *Pronouns: personal, ignorative and demonstrative*

7.1 Personal pronouns

The bulk of pronominal signalling is carried out by the bound pronominal prefixes (§10.2) and it is there that the most complex system is found, revealing a typical Australian architecture of three numbers for each person value, including an inclusive/exclusive distinction in the first person.

Of the three main pronominal series — direct, oblique and emphatic — only the oblique series makes as many number and person distinctions as the bound pronominal prefixes. The others collapse the inclusive/exclusive distinction, and the augmented/unit augmented distinction, to give a system very like English. However, one does hear various formations to fill these gaps and even extend them to a trial number, derived by prefixing the appropriate pronominal prefix to a numeral root (e.g. Dj *nguni-bogen* or E *ngunidjarrkno* [2ua-two] 'you two', Dj, W *ngurri-wern* [2a-many] 'you mob' and *ngarri-danjbik* [1a-three] 'we three exclusive', or E *bini-djarrkno* 'they two').

The free pronouns perform important discourse functions of emphasis, contrast, and referentiality. Although bound pronouns need not be referential (§10.2.8), free pronouns must be, so that the use of free pronouns is one way of specifying a referential reading for pronominal arguments.

7.1.1 A note on number

Before examining the pronoun system in detail, it is worth explaining the basis on which I formulate number using the glosses 'minimal', 'augmented' and 'unit augmented' instead of the more familiar 'singular', 'dual' vs 'plural'.[1] Now there are two logical ways of measuring the number of a pronoun: absolutely, in terms of the number of entities being denoted, and relatively, that is in terms of the number of entities beyond the logically minimum size of the set. For second, third and first exclusive pronouns both methods give the same result, but once first person inclusive pronouns are included the results differ. Consider the smallest first inclusive pronoun, containing 'you and me', which would be expressed by the pronominal prefix *ngarr-*, as in *ngarrwokdi* 'you and me are talking'. Reckoned absolutely this is a dual, referring to a set of two entities, but reckoned relatively this is the logically

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[1] The use of minimal/augmented analyses for Australian languages goes back to McKay (1975, 1978).

minimum set for a first person inclusive pronoun, and would count as a 'minimal' in the same way as 'I' is the minimal first person exclusive and 'you' is the minimal second person.

Consider two possible analyses of the Gun-djeihmi dialect. For now we consider just the bound prefixes and the free obliques, which show the system most clearly; optional initial dropping of *ng* isn't shown here.

Table 7.1: Formulation of pronoun paradigm with absolute number categories

	Singular	Dual	Trial	Plural
First exclusive	*nga-* *ngarduk*	*ngani-* *ngarrewoneng*		*ngarri-* *ngadberre*
First inclusive		*ngarr-* *ngarrgu*	*gani* *garriwoneng*	*garri-* *gadberre*
Second	*yi-* *nguddanggi*	*nguni-* *ngurriwoneng*		*ngurri-* *ngudberre*
Third	*ga-/ba-* *nuye* (masc), *ngarre* (fem)	*(ga)bani-* *berrewoneng*		*(ga)birri-* *bedberre*

This formulation, in terms of an absolute system of number, is clearly inelegant. In terms of semantic structure, it suffers from the asymmetry of lacking a singular in the inclusive, having a trial only in the inclusive (necessitated by the fact that *garriwoneng* means 'belonging to three of us, including me and you' and similarly *gani-* means 'we three, including you'), and having 'plural' mean 'greater than three' for the inclusive but 'greater than two' for the others. In terms of the form of morphemes, it likewise conceals certain regularities by showing the formatives *ni* and *woneng* with different number values in the inclusive.

These problems can be avoided if one adopts the relative analysis, using the number categories minimal (as defined above), unit augmented (i.e. one more than the minimal set) and augmented (i.e. two or more greater than the minimal set), as in Table 7.2; factorised number and person morphemes are shown in the first column and the headings, in the order bound:free.

Table 7.2: Formulation of pronoun paradigm with relative number categories

	Minimal	Unit augmented *ni-/-Vwoneng*	Augmented *-rri-/-berre*
First exclusive *nga-*, nm *ngaRR*	*nga-* *ngarduk*	*ngani-* *ngarrewoneng*	*ngarri-* *ngadberre*
First inclusive nm *ga-*, *gaRR*	*ngarr-* *ngarrgu*	*gani-* *garriwoneng*	*garri-* *gadberre*
Second nm *ngu-*, *nguRR*	*yi-* *nguddanggi*	*nguni-* *ngurriwoneng*	*ngurri-* *ngudberre*
Third ua *ba-*, a *bi-*, nm *beRR*	*ga-/ba-* *nuye* (masc), *ngarre* (fem)	*(ga)bani-* *berrewoneng*	*(ga)birri-* *bedberre*

Now the three-way number contrast of the first inclusive is seen as parallelling that of the other person values, and the *ni-*, *-woneng* and *-berre* formatives can be given unitary meanings. Because of its greater elegance, this is the system I will adopt in glossing and in further discussion of the free pronoun systems, the bound intransitive prefixes, and the subject prefixes of transitive combinations.

Note, though, that only the presence of an inclusive vs exclusive pronoun contrast motivates the distinction between the two number analyses. Once the inclusive vs exclusive pronoun collapses, as it does once we are dealing with objects in transitive combinations (discussed in §10.2.2) there is no longer any motivation for using this special number analysis. As a result, I use the 'singular', 'dual' and 'plural' glosses for objects of pronominal prefixes. To add a further layer of complexity, oblique pronouns that have been cliticised to the verbs in eastern dialects to make good certain neutralisations in the object prefix system follow the minimal/augmented system of their free counterparts.[2]

7.1.2 *Free and bound pronoun systems: forms*

Table 7.3 gives the bound pronominal prefixes, and the corresponding direct, oblique and emphatic free forms. Optional dropping of initial *ng* in Gun-djeihmi is not shown, except in the complicated case of the second person pronouns, where a number of initial variants compete; the dropping of initial *ng* in the Kune form *(ng)ungke* is also shown since it does not follow from regular phonological rules.

Note that Table 7.3 does not include complex oblique forms made up by combining direct plus oblique form. This is particularly common in the combination *ngaleng ngarre* 'her (possessive)', sometimes reduced to *ngalengarre*.

Note also that Kune neutralises the gender distinction in the oblique series; compare *bininj nuye daluk nuye* 'her husband and his wife' where other dialects would have *bininj ngarre daluk nuye*. As with so many Kune dialect features this may reflect Dalabon influence, since Dalabon likewise makes no gender distinction in its third person minimal possessives: note the Dalabon translation, *bi-no kvrdvkvrd-no*, of the above.

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2   In Australia, Glasgow (1964) for Burarra [Burera] and McKay (1975) for Rembarrnga were the first to propose analyses along these lines, while Conklin (1967) discusses a similar analysis for the Philippine language Hanunoo. For Kunwinjku, Oates (1964) uses a conventional absolute-based analysis, while Carroll (1976) uses the traditional terms singular, dual and plural while redefining them in relative terms; this is also the practice in Rowe (n.d.). I prefer to keep the terminologies distinct, both to emphasise their different organisational properties and to make possible the independent discussion of distinct systems or sub-systems where these may exist.

Table 7.3: Bound pronominal prefixes and free pronouns

			First exclusive	First inclusive	Second	Third
Minimal		Prefixed	*nga-*	*ngarr-*	*yi-*	M *ga-/ba-* K *ka-/ø-*
	Free	Direct	*ngaye,* I *ngayi* E *ngayih*	*ngad*	*ngudda,* Dj *(ng/g/w)udda*	masc *nungga(h)*[3] fem *ngaleng*
		Oblique	*ngarduk,* E *ngardukki*	*ngarrgu*	*nguddanggi,* ~ *ngudda ge* clitic *=ge* E *(ng)ungke*	masc *nuye* fem *ngarre*
		Emphatic	*ngayeman*	*ngadman*	*yingan,* E *ngudda*	masc *nungan* fem *ngalengman*
Unit augmented		Prefixed	*(ng)ani-/ngane-*	*gani-/kane-*	*ngune-* Dj *(ng/g/w)uni-*	W *(ka)bene-* M *(ga)bani-* E *(ka)bini-*
	Free	Oblique	*(ng)arriwoneng* W *ngarrewoneng*	*garriwoneng* W *karrewoneng*	W *ngurrewoneng* Dj *(ng/k)urriwoneng*	*berrewoneng*
Augmented		Prefixed	*(ng)arri-*	*garri-*	*ngurri-* Dj *(ng/k)urri-*	W *(ka)bene-* M *(ga)bani-* E *(ka)bini-*
	Free	Direct	*(ng)ad*	*(ng)ad*	*ngudda* Dj *(ng/g)udda*	*bedda*
		Oblique	*(ng)adberre*	*gadberre*	*ngudberre* Dj *(ng/g)udberre*	*bedberre*
		Emphatic	*(ng)adman*	*(ng)adman*	*ngudman* Dj *(ng/g)udman*	*bedman*

7.1.3 Functions of major free pronoun forms

DIRECT SERIES These can have subject, object or indirect function, though subject function is by far the commonest.

7.1   *"Njale   njanjukgen   maddjurn   ba-wodjme-ng?"   ngan-djawa-m   nungga.*
Dj   what   why   python   3P-sink-PP   3/1-ask-PP   he
         '"Why is it called *Maddjurn bawodjmeng* ('where the black-headed python
         sank down')", he asked me.'

7.2   *Nagohbanj   nungga-gih   Nym   gorngumo   bi-bukka-ng ...*
Dj   old.man   him-now   Nym   father   3/3hP-show-PP
         'Him now, that old man, Nym, his father taught him how to paint ...'

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3   The final *h* is found in Kune.

The bound pronominal prefixes often dispose of the need for free direct pronouns, so that in the majority of sentences only bound pronouns are used. However, free pronouns get used regularly in a number of circumstances.

They are commonly used in simple predicative constructions like ascriptives:

7.3   *Ngaye   bininj.*
Dj   I   Aboriginal.man
        'I am an (Aboriginal) man.'

Direct pronouns may also combine with the locative preposition:

7.4   *An-yau-bawo-ng   gure bedda.*
Dj   3/1-child-leave-PP   LOC them
        'He left me as a child with them.'

They are also used for special emphasis or contrast (7.5–7.7, 7.14), and as isolated elements in sentence fragments (7.8, 7.9) :

7.5   *Ngad ngarri-danjbik ngarri-bebme,   ngudda   yi-ni-n   kanjdji!*
W   we   1a-three   1a-go.outNP   you   2-sit-IMP inside
        'We three will go out, you stay inside!' [KH 23]

7.6   *A-marne-djal-djare   ngaleng.*
Dj   1/3-BEN-just-wantNP   her
        'I love only her.'

7.7   *Ngudda   ngadburrung yi-ngeibu-n   balanda* 'raft', *ngad   ngarri-ngeibu-n*
Dj   you   brother   2/3-call-NP   balanda   we   1a/3-call-NP

        bininj,   wularl.
        Aborigine wularl
        'You, brother, call it "raft" in *balanda* (language), we Aborigines call it *wularl*.'

7.8   *Aye! A-wulebme   gu-labbarl!*
Dj   I   1-swimNP   LOC-billabong
        'It's me! I want to swim in the billabong!'

7.9   *Ngaleng!*
E   her
        'It's her!' OR: 'Here she is!'

Finally, the existence of distinct masculine and feminine pronouns in the third person singular, which is not found on the bound pronoun series, often leads to the use of these pronouns for discourse tracking purposes:

7.10   *Ngaleng ga-ga-n   na-gudji yau,   nungga nabininjgobeng*
Dj   she   3/3INP-take-NP   MA-one   chick he   husband

        ga-ga-n   gun-bid-bogen.
        3/3l-take-NP IV-hand-two
        'She (the female emu) takes one chick, and he, the husband, takes ten.'

OBLIQUE SERIES The three main functions of oblique pronouns are:

(a) To express possession of a noun in any grammatical relation (e.g. *ngarduk duruk* 'my dog').

(b) To express benefactive type relationships, when no benefactive applicative is present on the verb.

(c) As a way of marking the number of pronominal arguments of the verb, in those cases where neutralisations in the transitive prefix paradigm have occurred. This is the only time this series can mark core arguments of the verb, and this use is also positionally restricted, to immediate pre- or post-verbal position. (This third use is discussed in §10.2.3.)

Returning to the most basic relationship, that of expressing possession, two sentence examples are:

7.11	*Wanjh*	*gabarri-bo-delengga-n*		*gure gu-red*	*bedberre.*
Dj	then	3a/3-water-carry.in.crop-NP	LOC	LOC-home	theyOBL

'Then they (birds)'ll carry it back to their nest in their crops.'

7.12	*Al-yau*	*nga-bu-n*	*nguddanggi.*
Dj	FE-child	1/3-hit-NP	youOBL

'I will hit your daughter.'

As 7.12 shows, it is possible for the oblique pronoun not to be contiguous with its head, suggesting these pronouns be analysed as implicitly substantive — 'your one', 'yours' etc. A more appropriate gloss for 7.12, on this analysis, is 'I will hit the child, your one.' (See §6.1 on the issue of whether NPs are a relevant analytic unit.)

There is one interesting irregularity in the use of the oblique pronouns to express possession: just when referring to possessed kin (e.g. 'my father'), one can use the form *ngayeken* (formed by adding genitive *-ken* to the direct base) instead of the normal first person minimal oblique form *ngarduk* (e.g. W *ngayeken ngabbard* 'my father').

A second use of oblique pronouns is with beneficiary NPs. The semantic link is presumably that 'something for X' is 'something that will belong to X'.

7.13	*Wanjh, an-dehne*	*gukku nga-bo-bawo-n*		*bedberre munguih-munguih.*
Dj	well	VE-that	water	1/3-liquid-leave-NP	theyOBL	for.ever

'Yeah, I'll leave that water for them for ever.'

7.14	*Wanjh Ngalyod*	*ø-wam*	*kore kun-red*	*ka-bolk-ngey-yo*	*Mibukala*
W	then	rainbow	3P-goPP	LOC IV-place	3-place-name-lieNP	[place]

	dja	*ø-bukm-inj*	*ngarre.*
	CONJ	3P-dry.up-PP	herOBL

'Then Ngalyod the Rainbow Serpent went to a place called Mibukala, but it dried up on her.' [KS]

Two other formal possibilities are applicable to both possession and benefactivesthe genitive nominal suffix (§5.2.1.3) and the benefactive applicative (§10.3.1); the latter would see 7.12 paraphrased as 7.15. Where the possessed entity belongs to an object or intransitive subject, the use of the benefactive applicative is more common than the oblique pronoun, while when it belongs to actants occupying other grammatical roles in the clause the benefactive applicative cannot be used.

7.15   *Al-yau   ∅-marne-bu-n.*
Dj   FE-child   1/2-BEN-hit-NP
        'I will hit your child.'

Note also that the benefactive cannot combine with reflexive interpretations of the reflexive/reciprocal (see §10.3.4) (though it is compatible with reciprocal interpretations), so that one cannot express sentences like 'he bought himself a car' or 'I'll bring (some) meat back for myself' with the benefactive. In these situations the oblique pronoun is used in combination with the basic verb stem:

7.16   *Nga-bayahme-ng   ngarduk   murrikka.*
I   1/3-buy-PP   meOBL   car
        'I bought a car for myself.'

7.17   *Nga-m-kanj-yi-rrurnde-ng   ngarduk.*
I   1/3-hither-meat-COM-return-PP   meOBL
        'I'll bring meat back for myself.'

There are many examples where the oblique pronoun occurs next to an object that could syntactically be construed as a possessum; the main factor in whether a possessive or a beneficiary interpretation is appropriate is the verb semantics. Thus in 7.18 either translation is appropriate, while in 7.19 only a beneficiary translation works.

7.18   *Ngaben-djawa-n   Japanese   daluk   minj nga-ka-n   ka-kinje*
W   1/3pl-ask-NP   Japanese   woman NEG 1/3-take-NP   3/3-cookNP

        man-me   ngardduk.
        III-food   meOBL
        'I asked Japanese women, could I take them bush to cook food for me/to cook
        my food and look after me.' [KS 258]

7.19   *wanjh   na-yahwurd ∅-wam   ∅-warlbom berrwoneng man-kung.*
W   well   MA-little   3P-goPP   3P-huntPP they.uaOBL III-honey
        'while the younger brother went out to get wild honey for the two of them
        (?to get their wild honey)' [KS 218]

There is much variation in the details of oblique pronoun use within the NP. In addition to simply juxtaposing the oblique pronoun (7.18, 7.20), in all dialects one frequently hears the sequence DIRECT + OBLIQUE + N (7.21–7.23).

7.20   *ngani-ma-rr-inj   by then,   wanjh djawirna ngarduk*
Dj   1ua-marry-RR-PP   right   friend   my
        'we were married before — right, my friend,

        but   ngani-murrego,   ngaye nga-djagerr-hme nungga ngan-gogok-m-e,
        CONJ   1ua-pair.of.brothers   I   1/3-yB-callNP   he   3/1-eB-call-NP
        we're brothers, I call him younger brother and he calls me older brother'

7.21   *Ngaye   ngarduk   duruk yahwurdurd-ni, djama a-bu-yi.*
Dj   I   my   dog   small-bePI   not   1/3-hit-IRR
        'When my dog was small, I never hit him.'

7.22   *Ngudda   nguddangki rouk.*
Dj   you   youOBL   all
       'All your (things).'

7.23   *Nga-yaw-ngu-n, ngaleng   ngarre.*
W   1/3-baby-eat-NP she   sheOBL
       'I will eat her baby.' [PC 401]

In addition, the direct pronoun alone is sometimes used instead of an oblique, though this may be restricted to the Gun-djeihmi dialect. I have yet to determine if this is restricted to certain types of possession.

7.24   *ngaye   duruk*
Dj   I   dog
       'my dog'

7.25   *Ngaye   daluk   gorrogo ba-ganj-ginje-yi.*
Dj   I   woman   before   3/3P-meat-cook-PI
       'My wife used to cook for me.'

A common way of expressing possessives is with the structure in 7.26, in which the parentheses around the possessor noun indicate that it may follow or precede the possessed noun plus oblique pronoun construction.

7.26   (POSSR$_i$)   [POSSD$_j$ OBL.PRONOUN$_i$]

As a way of saying '*i*'s *j*' this is actually commoner than the use of the genitive adnominal construction *i*-GEN *j* (see §6.3.1), for example:

7.27   *Marrek   ngarrbek   yau   nuye?*
MM   not   echidna   child 3OBL
       'Wasn't it echidna's child?'
       (It appears that, in MM, *nuye* 'his' can also be used with feminine possessors,
       since echnidna is clearly a female character.)

Sometimes speakers express second person singular possession with the form written *ge* (Mayali orthography) or *ke* (other dialects). This encliticises to the possessed noun (7.28, 7.29), or a verb complex incorporating the possessed noun (7.30). The third person possessed suffix *-no* cannot follow verbs with incorporated objects in the same way.

7.28   *djadj   ngarduk*   *djadj=ke*   *djadj-no*
MM   birthplace my   birthplace=your   birthplace-3POSSD
       'my birthplace'   'your birthplace'   'her birthplace'
       (Note that the practice of referring to a birthplace with the term *djadj*,
       lit. 'digging stick', is limited to females, and to Manyallaluk Mayali)

7.29   *A-djare   a-bolk-na-n   gun-yed=ge.*
Dj   1-want   1-place-see-NP IV-country=your
       'I want to see your country.'

7.30   *A-djare a-bolk-na-n=ge.*
Dj   1-want 1-place-see-NP=your
        'I want to see your country.'[4]

Internal evidence suggests *ge* was once the basic second person oblique free pronoun. It appears as a frozen second person person prefix in some Gun-dembui terms (e.g. *ge-mawah* 'the one who is your *mawah* and my *al-gurrng*' — §15.3). It seems likely that the normal second person oblique *nguddanggi* derives, via epenthetic insertion of the homorganic nasal *ng* and final vowel raising, from the sequence *ngudda ge* 'you your', which is still heard occasionally, and itself built on the pattern DIRECT + OBLIQUE described above, while the Kune form *ngungke* may derive by a similar route from an original second person possessive clitic *-ngu*, still found in some triangular kin-terms (§15.3) as well as on Dalabon nouns (e.g. *rolungu* 'your dog').

McKay (1975:109) describes a similar alternation in Rembarrnga, where the second person dative enclitic, basically *-kə*, has the form *ngkə* when attached to a stem whose final segment is a vowel, semivowel or liquid, and concludes that such alternations point to the ambiguous status of this pronoun between free form and suffix. This suggests that the alternation between stop-initial and prenasalised forms may in fact go back to an intermediate level of Gunwinyguan.

Like other nominals used as predicates (§4.1.1), oblique pronouns may take the past suffix *-ni* when referring to a previously existing relationship of possession, which has been terminated either through the death of the possessor (7.31) or the cessation of the possessive relationship (7.32).

7.31   *Na-yik-Badmardi   bu   nuye-ni gun-red.   Old man,   old Gabirrigi,*
Dnj   MA-late-Badmardi   SUB   his-P   IV-country   [name]

        gun-red   berrewoneng, Balawurru, berrewoneng, a-bal-djal-gukwe-rr-inj.
        IV-country   3uaOBL   [place]   3uaOBL   1-towards-just-profane-RR-PP
        'The late NaBadmardi, it used to be his country, old man, old Gabirrigi's, the
        country belonged to them two, Balawurru, to them two, I just profaned myself (by
        mentioning the dead man's name).

7.32   *Arduk-ni   an-ekke   modikka.*
Dj   my-P   VEG-that   car
        'That car used to be mine. (Then I lost it gambling.)'

Oblique pronouns have a third use, in which they are encliticised to the verb in order to distinguish certain number values, or the inclusive/exclusive distinction, that have been neutralised in the pronominal prefixes to the verb; this is particularly common in the eastern dialects. In such cases, and only then, they can represent direct arguments of the verb (7.33, 7.34), and have no possessive or other oblique semantics.

7.33   *Duruk wardi   ngun-baye-ng   ngurrewoneng*
E   dog   might   3/2°-bite-NP   2.ua.OBL
        'Dog might bite you two.' [DK]

7.34   *Duruk wardi   ngun-baye   ngudberre*
E   dog   might   3/2°-bite-NP you.a.OBL
        'The dog might bite you (pl).' [DK]

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4   In Dalabon the first person possessive suffix can also cliticise to verbs in this way, so as to modify an incorporated noun (e.g. *ngayh-mele-monwo-yan=ngan* [1/3HORT-swag-make-FUT=my] 'I will have to make up my swag well'), but this is not possible in Bininj Gun-wok.

Significantly, such cases are also unusual in having a fixed constituent order: the oblique pronoun must follow the verb when indicating an object, and (in Gun-djeihmi only) precede it when indicating a subject. In Kune and Kuninjku, for example, to say 'he saw them two' one must say *bennang berrewoneng*; and *berrewoneng bennang* cannot mean this. No such order restriction applies, of course, when the oblique pronoun is used to mark possession, and in this function it can come before the verb (e.g. *manme berrewoneng nganwong* 'he gave me the food belonging to those two'). For further examples and discussion see §10.2.3.

An interesting consequence of this in Kune is that, at least in Kune Narayek, speakers will usually combine the augmented with the unit augmented pronouns when expressing possession by a unit augmented possessor, as in *duruk ngadberre* 'our dog' but *duruk ngadberre ngarrewoneng* 'the dog belonging to the two of us'. This suggests the *-woneng* forms are becoming reanalysed as unit augmented pronouns without case specification.

EMPHATIC SERIES   Pronouns in this series have a range of meanings according to grammatical and pragmatic context: reflexive, 'in return', 'alone' and 'in contrast'. Most can be translated by English reflexive pronouns, though many such uses are not strict reflexive constructions.

Reflexive action is also coded by the use of the reflexive/reciprocal verb form (§10.3.4) and hence special pronoun forms are often unnecessary. However, emphatic pronouns can be used to force a reflexive meaning when a reciprocal meaning is also possible because the actor is non-singular. Compare 7.35 and 7.36:

7.35	*Barri-djawurrk-djobge-rr-inj.*
Dj	3aP-beard-cut-RR-PP
	'They cut their beards.' OR: 'They cut each other's beards.'

7.36	*Bedman*	*barri-djawurrk-djobge-rr-inj*	*bedberre.*
Dj	theyEMPH	3aP-beard-cut-RR-PP	they
	'They all cut their own beards.'

When used with the 'in return' meaning, emphatic pronouns are often (perhaps always?) followed by the clitic *=wali* 'in return':

7.37	*Ngabbard bi-bom*		*na-mege bininj,*	*nga-bu-n*	*nungan=wali*
Dj	father	3/3hP-killPP	MA-that man	1/3-kill-NP	himEMPH=in.turn

ga-guk-yo.
3-body-lieNP
'That man killed my father, I'll kill him and he'll die himself (in his turn).'

7.38	*Gorrogo, bu*	*ngarri-ni*	*gorrogo,*	*birrgala*	*barri-mun.ge-yi gakbi.*
Dj	before SUB	1a-sitP	before	boomerang	3a/3P-send-PI northeast

Adman=wali,   *an-gorle*   *arri-mun.ge-yi walem,*   *an-dobbo-gen.*
weEMPH-in.turn   III-bamboo   1a/3-send-PI   southwest   III-bundle-GEN
'Before, as we lived before, they used to send boomerangs northeastward (from the desert). We, in return, used to send big bundles of bamboo back southeastward.'

A number of senses of 'alone' — 'by one's own efforts' (7.39), 'without sharing' (7.40), and 'uniquely having this property' (7.41, 7.42) — are expressed by emphatic pronouns. Each of these senses may be emphasised by optional use of the root *-kudji* 'one', 'alone' with the appropriate pronominal prefix.

7.39   *Yingan   yi-marnbu!*   *Nungan   ba-ma!*
Dj   youEMPH   2-doIMP   heEMPH   3P-getIMP
       'You do it yourself!'   'He should get it himself!'

7.40   *Ngadman   garri-ngu-n   garri-gudji.*
Dj   weEMPH   12a-eat-NP   12a-alone
       'We'll eat it by ourselves, on our own.'

7.41   *Ngad djama garri-na-n,   gurdangyi   nungan   ga-na-n,   gare*
Dj   we   not   12a-see-NP   clever.man   heEMPH   3/3-see-NP maybe

       ga-ma-ng   gan-bukka-n.
       3/3-pick.up-NP 3/1a-show-NP
       'We (ordinary people) can't see it (the splinter taken out of the sick person),
       only the clever man can see it, maybe he will pick it up and show it to us.'

7.42   *gure nungan   an-garre   nuye, djama ga-bangme-ngu-n,   ga-bawo-n*
Dj   LOC heEMPH   III-custom his   not   3/3-not.yet-eat-NP 3/3-leave-NP

       ga-nudme-n wanjh nud   ga-ngu-n,
       3-rot-NP   then   rotten   3/3P-eat-NP
       'whereby he (the crocodile), after his own custom, does not eat (his prey) yet,
       he leaves it to rot, and then eats it rotten,'

Another sense is 'including X him/herself':

7.43   *Na-mege   bininj   barri-yim-i — maih   barri-yimerra-nj   rouk,*
Dj   MA-that   person   3aP-do-PP   creature   3aP-turn.into-PP   all

       alengman   al-wanjdjuk.
       herEMPH   II-emu   .
       'Those people did that — they all turned into creatures, including emu herself.'

In multi-participant texts, emphatic pronouns are sometimes used contrastively to indicate
that one participant is now performing the same action as a previous participant —
sometimes translatable by 'X in X's turn' (7.44). At other times the action may be different
(as in 'asking' as opposed to 'telling' in 7.45) but still part of a to-and-fro exchange.

7.44   *Gunak ba-yerrng-yiga-ni.   ba-yerrng-yiga-ni.   Bedman   wanjh*
Dj   wood   3P-wood-fetch-PI   3P-wood-fetch-PI   theyEMPH   then

       barri-yerrng-me-i
       3aP-wood-get-PP
       'She (emu) was fetching firewood ... and then *they* got some wood (to start
       cooking with before emu's return).'

7.45   *wanjh   nga-marne-bolk-ngeibo-m ngadburrung Nicholas,*
Dj   then   1/3-BEN-place-say.name-PP brother   Nicholas

       wanjh   ngan-djawa-m   nungan-wali   ba-yime-ng ...
       then   3/1-ask-PP   heEMPH-in.turn 3-say-PP
       'then I told my brother Nicholas the name of that place, then he asked me,
       he said ...'

Finally, the emphatic form may be used to mean 'they others', that is those who have not been main participants:

7.46	*Bedman*	*gu-barri-barnh-barndi,*	*"ngayed*	*yi-yimerra-n?".*
Dj	theyEMPH	LOC-3aP-ITER-hangPI	what	2-turn.into-NP

(After describing the escapades of emu and quail, the narrative turns to the other birds) 'While they others were all sitting in the tree (they asked), "what are you going to turn into?".'

The idiom *ngayeman ngarduk* means 'my business, my affairs'.

7.1.4 Other personal pronoun series

There are further series of free pronouns that are used more rarely, some confined to particular dialects. All are transparently built on the direct forms.

AS.FOR SERIES These pronouns, limited to Gun-djeihmi, are formed by cliticising =(*m*)*bu* to the direct pronouns, and mean 'what about X; as for X'. The *bu* form follows consonants, the *mbu* form follows vowels. They are likely to be a grammaticalisation of the general subordinating conjunction *bu*, which also has the meaning 'as to', 'as for', 'up to' when used as a preposition (§5.2.3.3), as in the Kuninjku expression *bu ngudda* 'that's up to you'.

7.47	*Ngayed-bu*	*wudda-mbu*	*yi-yime?*
Dj	how-AS.FOR	you-AS.FOR	2-doNP

'What about you, what are you going to buy (do)?'

7.48	*Ngaye-mbu,*	*gayakki?*
Dj	me-AS.FOR	nothing

'What about me, have you nothing for me?'

7.49	*Ngudda-mbu*	*ngurri-minde-rri*	*gandi-bu-n*	*ngadberre?*
Dj	you-AS.FOR	2a-many-stand	2a/1a-hit-NP	we

'Are **you** going to hit us (too)?'

7.50	*Wularl*		*na-mege*	*ngad=bu*		*ngarri-ngeibu-ni,*	*ngudda*	*ngadburrung*
Dj	stringybark.raft		MA-DEM	we=AS.FOR		1a/3-call-PI	you	brother

yi-ngeibu-n	*balanda*	*raft,*	*ngad*	*ngarri-ngeibu-n*	*bininj,*	*wularl.*
2/3-call-NP	English	we	1a/3-call-NP	Aborigine	wularl

'Wularl is what we used to call that. You, brother, call it "raft" in English, we Aborigines call it *wularl*.'

LOCATIVE SERIES This series is again confined to the Gun-djeihmi dialect, and its members are formed by suffixing -(*djah*)*djam* to the direct pronouns. No difference between the simple and reduplicated forms is evident.

ngaye-djam	*ngaye-djahdjam*
wudda-djam	*wudda-djahdjam*
nungga-djam	*nungga-djahdjam*
ngaleng-djam	*ngaleng-djahdjam*
ngad-djam	*ngad-djahdjam*

> *wudda-djam*   *wudda-djahdjam*
> *bedda-djam*   *bedda-djahdjam*

The suffix *-(djah)djam*, when used with pronouns, has only one of the meanings found with other nominals (see §5.2.1.10, §5.2.1.11): it can mean 'place where X is habitually' but not 'thing found habitually at X's place'.

7.51   *Ga-wohna-n*   *udda-djam.*
Dj   3/3I:NP-look.after-NP   you-LOC
        'He is looking after your place.'

7.52   *Gu-warde a-re*   *gudda-djam   ga-wohna-n.*
Dj   LOC-rock   I-goNP   you-LOC   3/3I:NP-look.after-NP
        'I'm going up to the rock country to look at your country.'

-*gih/-kih* 'NOW'   Suffixed to pronouns, this indicates that the referent has just been identified in the speaker's or hearer's consciousness, or in that of some character in the discourse. Speakers translate *nungga-gih* in isolation as 'that's him — I just recognised him'. In the following example, *nungga-gih* accompanies the first identification of an exemplifying character in the text — Nym's father as an example of older people teaching painting.

7.53   *Na-yuhyunggi   bedda   werrk   barri-bukka-ng,*
        I-first.people   they   first   3a/3P-show-PP
        'The first people taught people how to paint first

        nagohbanj   nungga-gih   Nym   gorngumo   bi-bukka-ng ...
        old.man   him-now   Nym   father   3/3hP-show-PP
        'Him now, that old man, Nym's father taught him how to paint ...'

In 7.54 the realisation of who the referent is belongs to the mother of the boy whose bones are being shown:

7.54   *Mo-no*   *bi-marne-kurrme-ng   nungka-kih.*
E   bone-3POSSD   3/3hP-BEN-put-PP   him-now
        '(He) showed her the bones of him now (her son).'

-*h* 'IMMEDIATE'   Glottalisation with 'immediate' meaning occurs in a number of word classes, notably verbs (§11.4.3) and demonstratives (§7.3), and is also found occasionally on pronouns (e.g. *nungkah* 'him here' or 'him now' as opposed to basic *nungka*). In Kune the immediate forms have been generalised to the basic form for first and third masculine minimal, thus *ngayih* and *nungkah*.

-*ko* 'PRONOMINAL DUAL'   In Kunwinjku and Gun-dedjnjenghmi specific dual forms of the first and second pronouns (which otherwise don't distinguish number) can be formed by suffixing *-ko* as a pronominal dual. (See §6.2.7.1 on the related, and much commoner, use of this suffix as a dyad marker.) Although this usage is not mentioned by the grammatical sources on Kunwinjku, Hale's field notes (p.35) contain examples of it: *ngudda-ko* 'you (du)' and *ngadko* 'we (du)'. Interestingly, it appears that this suffix blocks application of the ablative case: *kure nguddabe* 'off you (sg or pl)', but *kure nguddako* 'off you (du.)' (p.64). The form *ngadko* also occurs in Gun-dedjnjenghmi (Murray Garde pers. comm.).

7.2 Ignoratives

By 'ignoratives' (see Karcevski 1969; Wierzbicka 1980; see also Mushin 1995 who uses the term 'epistememes') I refer to interrogative pronouns like 'who' or 'what', as well as indefinite pronouns like 'someone', 'something'. These are united by the semantic component of the speaker's or hearer's ignorance with respect to an entity or event.

As in most other Australian languages, most ignoratives exhibit triple polysemy between interrogative, indefinite pronoun, and negative pronoun senses. They typically have an interrogative interpretation when used clause initially[5] and/or with a questioning intonation, an indefinite pronoun interpretation when non-initial and/or with declarative intonation, and as negative indefinite pronouns ('no-one', 'nowhere' etc.) when used with a negative particle and/or irrealis inflection. (For fuller discussion of the syntax of negation see §13.7, and of questions see §13.8.)

In discussing ignoratives, we need to distinguish three basic parameters.

First, the ONTOLOGICAL CATEGORY[6] of the interrogated referent, such as person in case of *who*, thing in the case of *what*, and time in the case of *when*. Although linguists are in broad agreement about what these categories are, the details have been little investigated cross-linguistically. Are linguistic manifestations, for example, always 'things', as suggested by English *what is your name*, *what did he say* and *what do I call you (e.g. cousin)*? In fact we shall see that, in Bininj Gun-wok, these three sentences can be literally translated as 'who is your name', 'what did he say' and 'how/where do I call you', suggesting a more problematic assignment of speech to a higher-level ontological category.

Second, the mixture of EPISTEMOLOGICAL AND EXISTENTIAL ASSUMPTIONS underlying the use of a given term: for example (very roughly) that the speaker can identify the referent, and that the referent exists in the case of *somebody*, that no referent exists in the case of *nobody*, and that a referent may exist and the speaker is not asserting any particular identity for the referent, in the case of *anybody*. Note that this parameter is a bit broader than what Haspelmath (1997:2) calls 'core functions', since he is predominantly concerned with indefinite pronouns. At the same time, it is important to realise what a large set of semantic clusters exist along this parameter: the simplistic label 'indefinite pronoun', for example, has been shown by Haspelmath to cover at least nine core functions, all of which should in principle be described in a grammar. Another important semantic cluster found with ignoratives in Bininj Gun-wok (as in most other Australian languages) is the special 'whatsisname' series, used to fill in for a word the speaker has temporarily forgotten: these are formally related to the 'who' and 'what' ignoratives, so that one has *-ngamed* 'whatsisname' (with velar initial) grouped with *-ngale/-nganjuk* 'who', and *njamed* 'whatsitsname' grouped with *njale/njanjuk* 'what'. Interestingly, there is a special 'do.whatsitsname' form *njamedme*, morphologically the verbalised form of *njamed*, even though there is no true ignorative verb in the language.

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5   They may be preceded by the topic NP, as in 7.60.

6   Here I follow Haspelmath (1997:21) and Jackendoff (1983:51); other terms in use are 'epistemological' category (Durie 1985: Chapter 6) and 'knowledge' category (Mushin 1995). This is not the place to pursue the question of whether it is better to extend the general ontological categories needed to discuss all conceptual representations (as per Haspelmath and Jackendoff), or to conceive of ignoratives, with their focus on domains of knowledge and ignorance, as reflecting human conceptualisations of ways of knowing about things (as per Durie and Mushin), as opposed to categories of things themselves.

Third, questions of RELATIONALITY: in the case of 'whose', for example, the restriction of the interrogated referent is partly by ontological category that is, the referent should be a person) and partly by the possession relationship between the interrogated referent and the possessed entity. Note that it is not always clear in the linguistics literature when one is dealing with issues of relationality and when one is dealing with ontological category: Does 'why', for example, interrogate an ontological category of cause, or interrogate an event category fulfilling a particular relation (of causality) to a given event?

This equivocation in the literature probably reflects some equivocation on the part of languages themselves: 'where', for example, is represented by a monomorphemic root in the everyday variety of Bininj Gun-wok (*baleh* or *(ng)ayed* according to the dialect), but may be presented by the 'who' ontological-category root plus the locative-marking relational prefix in the more analytic mother-in-law variety (*gu-ngale*; see below). Unlike *whose*, which can in some way be broken down into an ontological element *who* and a possessive element *s(e)* (and indeed is spelled *who's* by a growing number of untutored English speakers), the form *why* in English is monomorphemic, while *what for* is clearly decomposable; *njaleken* or *njanjukgen* in Bininj Gun-wok are likewise decomposable. And while English *why* does not form indefinite pronouns or negative pronouns — there is no **somewhy* or **nowhy* on the pattern of *someone, noone* or *somewhere, nowhere* — other languages, such as Russian, include it in these series through forms like *pochemu-nibud'* 'for some reason'.

In presenting the data from Bininj Gun-wok, I follow the root forms as my first line of cleavage, on the assumption that this attests an emic division of ontological categories in the language. Then I examine the ontological distinctions that may fall together under a given root (e.g. 'where' and 'how' under *baleh/ngayed*) as well as commenting on any delimitation of ontological boundaries that is unusual from an English perspective (as with the different translations of 'what', with regard to linguistic content, that were mentioned above); at this stage I concentrate on the range of meanings found with interrogative function, which is always the most richly attested. I then consider any derived forms where case or other suffixes indicate particular relations; thus Dj *njanjukgen* 'why', the genitive of *njanjuk* 'what', will be discussed under *njanjuk*. Finally, I close each section with an examination of the clusters of epistemological and existential assumptions that can be associated with each form in different syntactic and semantic contexts, namely the evidence for polysemy between interrogative, indefinite-pronoun and negative-indefinite meanings, and for further meaning distinctions within the indefinite-pronoun range. Within the limits of my data I exemplify the range of indefinite-pronoun meanings discussed by Haspelmath (1997), though I lack the space or the corpus necessary to examine all combinations of these meanings with ontological and relational categories. The 'whatsisname'-type roots will be discussed at the end of each form-oriented section.

7.2.1 Dialect differences

There is basic uniformity across the dialect chain in semantic structure, but Gun-djeihmi dialect stands out by having a distinct set of roots for the main formal categories, although there is much mixing of forms and use of the 'Kunwinjku' forms by most Gun-djeihmi speakers (Toby Gangele was an exception). The Gun-djeihmi forms differ from the other dialects by using the following:

- *-nganjuk* rather than *-ngale* for the 'who/someone' series,
- *njamed* rather than *njale* for the 'what/something' series,

- *njanjuk* rather than *njale* as the base for case-marked forms (such as Dj *njanjukgen* 'why, what for' vs *njaleken* 'why, what for' in the other dialects) and
- *ngayed* rather than *baleh* for the 'where/how' series.

Note that the association of initial *ng* with humans and of *nj* with non-humans/inanimates survives other formal differences across dialects.

There are also some specific derived forms limited to particular dialects. Table 7.4 shows the full set of forms, with dialect affiliations noted where relevant. Note that any root shown with a hyphen will take an appropriate noun-class, pronominal or locative prefix as discussed below (e.g. *nangale* 'who (male)', *ngalngale* 'who (female)', *manngale* 'which car', *kunngale* 'which part of the body', *yingale* 'you who'). If the sex of a human referent is not known or irrelevant, the masculine prefix will be used.

Table 7.4: Main ignorative roots across dialects

Meaning	Dj	Other dialects
who	*-nganjuk*	*-ngale*
whatsisname	*-ngamed*	*-ngamed/-njamed*
what	*njanjuk*	*njale*
whatsitsname	*-njamed*	*-njamed*
why, what for	*njanjukgen*	*njaleken*
where	*ngayed*	*baleh*; also I, E *balehkeno* 'when'
how, when, how many	*ngayed gayime*	*baleh kayime*

Interrogative pronouns are retained unchanged in Kun-kurrng, except that *gu-ngale* replaces *ngayed* (7.68), and *dakalhme* replaces *yime* (7.140) in the phrasal ignorative *baleh kayime* (W)/*ngayed kiyime* 'how', 'when'.

We now turn to a detailed discussion of each root.

7.2.2 -ngale/-nganjuk *'who'*

The root *-nganjuk* is restricted to Gun-djeihmi; *-ngale* is used in all other dialects.

7.2.2.1 Ontological range

The basic meaning is 'who', as in 7.55–7.58, establishing the prototypical ontological category as people. The masculine prefix is used when the referent is male, plural or of unknown gender, and the feminine prefix when the referent is female. The same roots are used in the mother-in-law register (7.58).

7.55   *Na-ngale   ngunbene-bom?*
W   MA-who   3/2ua-hitPP
          'Who (either sex) hit you?' [KH 19]

7.56   *Ngal-ngale   daluk   ngal-kimuk?*
W   II-who   woman   II-big
        'Who's the large lady?' [KH 19]

7.57   *Na-nganjuk / al-nganjuk   yi-djawa-m?*
Dj   MA-who   FE-who   2//3-ask-PP
        'Whom (masc/fem) did you ask?'

7.58   *Na-nganjuk   gan-weibu-n,   gayagura   garri-djal-murndi.*
Dj   MA-who   3/1a-give-NP   nothing   12a-just-sitNP
        'Who's going to give me some (tobacco), we're just sitting here with nothing.' [k.k.]

The semantic range of the *-ngale/-nganjuk* set, however, is broader than English 'who'. To begin with, it can be used in all questions about a person's identity in terms of name or subsection or "skin" (§1.4.2.2):

7.59   *Na-ngale   gun-ngei   bininj?*
Dj   MA-who   IV-name   Aboriginal
        'What is his aboriginal name?'

7.60   *Ngudda   yi-ngale   yi-ngey-yo?*
I   you   2-who   2-name-lieNP
        'What is your name?'

7.61 a. *Ngudda yi-ngale   kun-kurlah?*   b.   *Ngal-ngale   kun-kurlah ngarre?*
W   you   2-who   IV-skin   FE-who   IV-skin   her
        'What is your "skin"?'   'What is her "skin"?' [E&E 13]

I have one example of the bare root being used to question a person's identity in terms of clan membership:

7.62   *Ngale   yi-karrme   kun-nguya?   Na-kardbam.*
I   who   2-haveNP   IV-clan   I-[clan.name]
        'What clan are you?'   'Nakardbam.'

And, prefixed with *kun-* (the noun-class prefix most commonly used with body parts — §5.5), it can mean 'which part of (a person's) body':

7.63   *Kun-ngale   bi-rrulubom?*
I   IV-who   3/3hP-piercePP
        'Which (part of his/her body) did it pierce?' [GID]

So far we could unite all these uses as ignoratives relating to the identity of humans, their parts and their representations in terms of names and labels of various sorts. However, there are also cases where *-ngale* is used, duly prefixed with the vegetable prefix, of non-humans (7.64, 7.65). It is possible that the first use is motivated by the fact that ownership of the car will be attributed to a person or group, while in the second case the focus on naming of the plant species evokes parallels to the use of *-ngale* when human names are being sought, but much more data is needed before this can evaluated properly.

7.64   *Man-ngale   ngurri-m-wam?*
I   VE-who   2a-hither-goPP
        'Which (truck) did you come on?'

7.65   *Man-ih   man-ngale?*
I   VE-DEM   VE-who
       'What is this (plant) called?'

7.2.2.2 Relational elaborations

This root is highly restricted in the relation-marking affixes with which it can occur. It is striking that the forms **nangaleken* or **nanganjukgen* [who-GEN], which one would expect to find with the meaning 'whose', are not attested. Instead 'whose X' is expressed as 'who X his/her', using the possession structure outlined in 7.26.

7.66   *Na-nganjuk   ngan-gorle   nuye?*
Dj   MA-who   III-spear   his
       'Whose spear (is this)?'

7.67   *Na-ngale   birrkala   nuye?*
W   I-who   boomerang   his
       'Whose boomerang?'

The only form which uses case-like affixation to give a relational derivation of this root is found in Kun-kurrng, where the locative-prefixed form *gu-ngale* is used for 'where' instead of the ordinary-language forms *ngayed* or *baleh* (see below):

7.68   *Gu-ngale   ga-morndi.* (k.k.)
Dj   LOC-who   3-stay
       'Where is he staying?' (= o.l. *ngayed gayo*)

It can also be used to mean 'where on the body', functioning as the locative form of *kun-ngale* (see above) in conformity with the regular pattern of forming *ku*-locatives from *kun*-nouns.

7.2.2.3 Indefinite and negative pronoun uses

The interrogative function of *-ngale/-nganjuk* has already been exemplified above. Note that it can also be used as an interrogative in embedded questions (7.69) and WH-complements of verbs of perception or cognition (7.70).

7.69   *Barri-djawaihm-i   na-nganjuk   gaban-h-bu-n?*
Dj   3aP-ask-PI   MA-who   3/3pl-IMM-kill-NP
       'They used to ask who was killing them.'

7.70   *Na-mung   ø-durrkme-y   man-kole   ø-nome-ng,   ø-bekka-ng   na-ngale*
E   taipan   3P-pull-PP   III-spear 3P-smell-PP 3P-hear-PP   I-who

       bi-yame-ng.
       3/3hP-spear-PP
       'Taipan pulled out the spear and smelled it, so he could know who had speared him.'

Indefinite pronoun uses, translatable as 'someone' or 'anyone' are also possible, such as in the protasis of a conditional. These are normally accompanied by *bininj* 'person':

7.71   *Bu   na-ngale bininj   ka-re ...*
W   SUB MA-who   person   3-goNP
         'If anyone goes ...' [E&E 100]

However, it is not attested as an indefinite pronoun when a specific referent is intended: here *bininj* 'person' is used, typically modified by dubitative *nuk* (7.72).

7.72   *Bininj   nuk   ø-wulhke-ng ka-m-re   kunubeywu, kan-yika-ng.*
W   person   DUB 3-light.fire-PP 3-hither-goNP maybe   3/1a-bring-PP
         'Maybe someone has lit a fire, maybe he is coming here and bringing us something.'
         [OP 494]

The reduplicated forms *nanganjuhnganjuk* (Dj) and *nangalengale* (other dialects) mean 'all sorts of people', 'lots of people', as in:

7.73   *Na-ngale-ngale   nakga   barri-wogihme-ng ...*
Dnj   MA-who-who   MA:DEM   3aP-work-PP
         'All sorts of people were working there ...'

In negative contexts *-ngale/-nganjuk* function as negative pronouns, translatable as 'no-one':

7.74   *Larrk,   marrek, minj change birri-yime-rr-inj.   ø-Djal-yi-wam*
W   nothing   never   not   3aP-do-RR-PP   3P-just-COM-goPP

         na-djal-kudji   story   makka   man-kare djal burrkyak   changim
         MA-just-one   VE:DEM   VE-old   just   nothing

         na-ngale   ø-yime-ng. And minj na-ngale ø-marnbu-yi   overnight
         MA-who   3P-do-PP   not   MA-who 3P-make-IRR

         larrk.   Makka   djal   korroko
         nothing   VE:DEM   just   long.ago
         'No, nothing, it has never changed. There has only been one story which has continued from long ago and no one has changed it. And nobody just made it up overnight! It is from long ago.' [JN, interview with MG]

7.75   *Minj   mak   na-ngale ka-re   ka-kawo-n.*
W   not   at.all   MA-who 3-goNP 3-disturb-NP
         'Noone goes there or disturbs anything.' [OP 353]

7.2.2.4 -ngamed *'whatsisname'*

The form *ngamed*, found in all dialects, roughly means 'whatchamacallim', 'whatsisname', and replaces nouns for entities whose name the narrator has forgotten, with a comparable ontological range to *-ngale/-nganjuk*. Unprefixed *ngamed* can also mean 'whatchamacallim', 'whatsisname'; it may be prefixed if enough is known to assign it to a gender.

7.76   *Bedda   na-ngamed, Nangarridj Nabolmo Nangarridj, Fred balanda*
         they   MA-who   Nangarridj   Nabolmo Nangarridj   balanda

    ba-ngei-yo-i.
    3P-name-lie-PP
    'They, him and whatsisname, a Nangarridj man, a Nangarridj man of the Nabolmo
    clan, Fred was his European name.'

7.77   *An-ngamed ngarri-ga-ni an-wung   an-djaddad.*
        VE-what   1a/3-carry-PI III-flame.cone III-flame.carrier
        'We were carrying whatsitsnames (inflorescences of a tree whose name the
        narrator forgets), flame cones, flame carriers.'

In Kuninjku only, this takes the form *njamed* after the feminine prefix, giving the pair masculine *nangamed* and feminine *ngalnjamed*, presumably reflecting peripheral dissimilation.

    It is possible that this form derives by syncope from a fuller phrase, *na-ngale na-med*, attested in Kuninjku, literally 'MA-who MA-wait.a.minute', where *med* is normally an interjection meaning 'hang on!' (§13.12). Similar remarks appear to the 'whatsitsname' form *njamed* discussed below.

    In Gun-djeihmi only, *-ngamed* parallels the 'who' root in allowing the reading 'no-one', 'nobody' in negative contexts:

7.78   *Djama na-ngamed an-marne-yolyolme-ninj.*
        NEG   MA-who   3/1-BEN-mention-IRR
        'Nobody ever talked about him/her to me.'

7.2.3 njale/njanjuk/njamed *'what'*

In dialects other than Gun-djeihmi, *njale* means 'what', 'something' and (in negative contexts) 'nothing', with *njamed* restricted to the meaning 'whatsitsname'.

    In Gun-djeihmi the situation is more complicated: though it can still mean 'whatsisname', it can also mean 'what', 'something' and 'nothing'; *njale* is commonly used as in the other dialects (though usually considered not pure Gun-djeihmi), and *njanjuk* serves as the base for the interrogative term *njanjukgen* 'why', is widely used as an indefinite pronoun, and only occasionally functions with the meaning 'what'. I take this to reflect an earlier situation where Dj *njanjuk* parallelled W *njale*, but has now been encroached upon by *njamed* extending its semantic range out of the 'whatsitsname' meaning into the realm of ignoratives proper.

7.2.3.1 Interrogative sense; ontological range

    This root series covers about the same ontological range as English 'what', including both inanimates and non-human animates (7.79a,b). In Gun-djeihmi the *-njamed* root takes the semantically appropriate gender prefix, as in (7.88), where it takes the feminine, the default gender for birds. The form *an-njamed* (Dj) or *man-njale* (W, I) 'what (veg.)' has also been recorded (7.81), with the meaning 'what tree?', although the vegetable prefixed *-ngale* root is possible as well (§7.2.2.1).

7.79 a.   *Njale   bene-boken   kabene-h-na-n?*
W   what   3ua-two   3ua-IMM-see-NP
        'What are they two looking at?'

    b.   *Nga-marridowe-n,   njanjuk   nga-ngu-n?*
Dj   1-be.hungry-NP   what   1-eat-NP
        'I'm hungry, what am I going to eat?'

7.80   *Al-njamed   ngal-dehni?*
Dj   FE-what   FE-DEM
        'What (bird) is that?'

7.81   *Makka   man-dubang   man-njale?*
I   VE:DEM   III-ironwood   VE-what
        'What's the ironwood tree called (in Kun-kurrng)?'

This series may also be used when asking the name of non-humans:

7.82   *Njale   ngey-no?*
I   what   name-3POSSD
        'What's its name?'

In Kunwinjku the phrase *njale kun-dung* (lit. 'what sun') is used to mean 'what's the time?'.

7.2.3.2 Relational forms

'Why' is built by adding genitive *-ken/-gen* to the root *njanjuk* (Dj) or *njale* (other dialects); recall that one sense of the genitive is cause or purpose (§5.2.1), so this is literally 'for/because of what'. Examples are:

7.83   *Njanjukgen   gurri-bu-rr-en?*
Dj   why   2a-hit-RR-NP
        'What are you fighting about?' OR: 'Why are you fighting?'

7.84   *"Njale   njanjuk-gen   maddjurn   ba-wodjme-ng?"   ngan-djawa-m   nungga.*
Dj   what   why   python   3P-sink-PP   3/1-ask-PP   he
        '"Why is it called *Maddjurn bawodjmeng*" he asked me.'

7.85   *Njaleken?* (W)   *Ba-m-djal-wam   ngan-na-ng.* (Dj)
     why   3P-hither-just-goPP   3/1-see-PP
     'Why (did he come)?'   'He just came to see me.'

In Kunwinjku there is also a form *njalekah* 'why, for what purpose, formed adding the goal suffix *-kah* 'cause' to the 'what' root:

7.86   *Njale-kah   ngan-yi-bebme-ng   kore   bu   bininj   walah*
W   what-BEN   3/1-COM-appear-PP   LOC   SUB   person   ?
        'Why was he taking me to where the people are?' [OP 411]

7.87   *Wanjh   ngal-kudji   ngal-kohbanj   bi-djawam   "Njale-kah   wanjh*
W   then   FE-one   FE-old.person   3/3hP-askPP   what-BEN   then

     yi-h-ngalkbu-n?".
     2-IMM-cry-NP
     'Then an old lady asked him, "Why are you crying?".'

In Gun-djeihmi there is also a 'why' form *njanjukge* with the suffix *-ge*, not otherwise attested; it may be an idiosyncratic contraction of *-gen*. This form can also be used as an indefinite pronoun, with the meaning 'for something'; see below.

7.88   *Njanjukge   gan-marne-bom?*
Dj   what.for   2/1-BEN-killPP
         'What did you shoot that (dog) of mine for?'

Njale-dorreng, formed in Kunwinjku by adding *-dorreng* 'with', means 'with what?'

7.2.3.3 Indefinite and negative pronoun uses

Any of the forms *njale*, *njanjuk* and *njamed* can be used indefinitely with the meaning 'something', 'anything' or 'whatever'. Specifically, they are attested with the meaning 'specific something' (7.89), 'non-specific, irrealis something' (7.90–7.92), or in the protasis of a conditional (7.93). One or more modal elements or conjunctions normally co-occur with the 'what' pronoun to give this meaning: the dubitative particle *nuk* (7.89), the subordinating conjunction *bu* (7.90, 7.91), perhaps fused with the conjunction *wardi* 'might' to give the particle *wardibu* 'try for' (7.91, 7.92), or cliticised to a demonstrative (7.93).

7.89   *Njale   nuk   benbene-dundiwe-yi.*
W   what   DUB   3/3duP-cause.to.return-IRR
         'Something was pulling them back.'

7.90   *Bolkgime   wurd   ngarri-yauh-makna-n,   bu   njale   ngarri-ma-ng …*
Dj   now   a.bit   1a-again-try.look-NP   SUB   something   1a-get-NP
         'Now we'll try having another look, and if we get something …'

7.91   *Bolkgime   bu   njanjuk   ga-yi-rrurnde-ng,   wardibu   gayakki widdjak.*
Dj   now   SUB   what   3-COM-return-NP   try.for   nothing   no.matter
         'Now he'll bring something back, but if he should bring back nothing it
         doesn't matter.'

7.92   *Wardibu   njanjuk,   ayeman,   balanda   na-wern-gen   gu-behne,   gare*
Dj   try.for   something   1sgEMPH   balanda   MA-many-GEN   LOC-there   maybe

         gabarri-bolk-gagawo-n,   ngarr-e   ngan-gudji-hgen,   ngarri-yauh-makna-n.
         3/3pl-place-spoil-NP   1a-goNP   VE-one-GEN   1a-again-try.look-NP
         'If possible, I'll (get) something myself, (but) there's a lot of balandas there, could
         be that they're 'wrecking the place (spoiling the fishing), we'll go one more time
         now and try our luck.'

7.93   *barri-bebbe-gana-ga-ng,   gun-berd,   gun-dad,   njanjuk   namege=bu*
Dj   3a/3P-each-ITER-take-PP   IV-tail   IV-thigh   something   MA:DEM=SUB

         barri-bebbe-gana-ga-ng
         3a/3P-each-ITER-take-PP
         'they each took their share, some part of the tail, some a thigh, they each took
         something like that'

It may also be used, after a list of alternatives, with the free-choice meaning 'anything', 'whatever':

7.94   *... na-wu   gare   Yirridjdja,   Duwa,   njamed.*
Dj   MA-REL   maybe   Yirritja   Duwa   whatever
        '... who might be Yirritja, Duwa, whatever.'

The reduplicated forms *njale-njale* and *njanjuk-njanjuk* are often used, with the meaning 'all sorts of things', 'whatever', 'this and that':

7.95   *Wurdurd-no   —   ragul,   gorlobbok,   goddoukgoddouk,*
Dj   children-3POSSD   red.eye.pigeon peaceful.dove bar.shouldered.dove

        gikgik,   njanjuk-njanjuk   maih   na-wern-gen   —
        brown.honeyeater   all.sorts   bird   MA-many-GEN

        barri-marridowe-n-di.
        3aP-starve-PERSIS-PI
        'All her children — the red-eye pigeon, the peaceful dove, the bar-shouldered dove,
        the brown honeyeater, all the various birds — they were hungry.'

7.96   *Larrk,   marrek Mardayin   birri-bimbuyi,   ya   na-djamun   and*
I   nothing NEG   [ceremony] 3aP-paint-IRR   yeah MA-sacred

        ngarri-kerrnge ngarri-dolhme-ng   djang   ngarri-bimbu-n,
        1a-new   1a-appear-PP   dreaming   1a-paint-NP

        ngarri-bimbom   and ngalyod and njaleh-njale.
        1a-paintPP   Rainbow   what-what
        'No, they didn't paint Mardayin ceremony designs, they are sacred, but we, the
        new generation have appeared and we paint sacred dreamings such as rainbow
        serpents and what have you.' [GID]

I have examples of indefinite uses of the 'why/for what' forms in Gun-djeihmi. The 'why' form *njamedgen* may be used with the meaning 'for some reason' (7.97), while *njanjukge* can mean be used indefinitely to mean 'for something' (7.98):

7.97   *Barri-wurlh-wurlhge-yi,   dja   njamed-gen.*
Dj   3aP-ITER-light.fires-PI   CONJ   what-GEN
        'They would go around lighting fires, for whatever reason.'

7.98   *wanjh   bolkgime ngani-wohme-n-di   wardibu djenj.*
Dj   all.right now   1ua-sit.around-PERSIS-PI try.for   fish

        Nángarridj, Alwagadj wardibu njanjukge   gabani-ma-ng bolkgime
        [name]   [name]   try   for.something   3uaNP-get-NP   now
        'But now we'll just keep sitting around for a while and try getting some fish.
        Nangarridj and Alwagadj are trying to get something now.'

Negative sentences with *njale* (7.99, 7.100), *njanjuk* (7.101, 7.102) or *njamed* (7.103) mean 'nothing', 'nothing at all':

7.99   *Birri-dadj-dadjke-ng,   minj   njale   ø-yu-wirriinj.*
E   3a/3P-ITER-cut-PP   NEG   what   3P-lie-IRR
        'They hacked him apart until nothing remained.'

7.100 *minj mak njale ∅-na-yi ku-rurrk bu ∅-ni-wirrinj*
W NEG at.all what 3P-see-IRR LOC-cave SUB 3P-sit-IRR
'but she did not see anything inside' [OP 422]

7.101 *Na-mege wurdyau gun-djikka bi-marne-warrem-inj,*
Dj MA-DEM child IV-breast 3/3hP-BEN-go.bad-PP

djama njanjuk ga-ngu-n, wanjh ga-marridowe-n.
NEG what 3/3L:NP-eat-NP then 3-be.hungry-NP
'That kid's (mother's) breast went bad on him, he's got nothing to eat,
so he's going hungry.'

7.102 *Ngarri-ma-ng gun-guyeng-gu ngarri-yerrga-ng, djama njanjuk*
Dj 1a-get-NP IV-long-?[7] 1a-sit-PP not something

ngarri-ma-yi ga-djal-yakki
1a-get-IRR 3-just-nothing
'We'll catch something in the long run, (though) we've been sitting here and
haven't caught anything at all.'

7.103 *Djama ba-ngu-yi njamed, gayakki, marrek ba-ngu-yi.*
not 3/3lP-eat-IRR what nothing not 3P-eat-IRR
'He didn't eat anything, he had nothing to eat.'

7.2.3.4 njamed *'whatsitsname, whatchacallit'*

In all dialects *njamed* functions as the equivalent of *na-ngamed* (§7.2.2.4) for non-human referents, being used when the speaker is unable to recall the name of a thing:

7.104 *Njamed djirndi gare ba-yi-warlkge-rr-inj njanjuk, gu-mege*
Dj whatsit quail maybe 3P-COM-hide-RR-PP or.something LOC-there

ganjdji.
under
'That whatsitsname, quail, maybe he's hidden himself away with it or something,
under the leaves there.'

7.105 *Nga-kodjmukme-ng, njamed ngarri-ngeybu-n kun-wok-beh, Nawuleb.*
E 1-forget-PP whatsit 1a-call-NP IV-language-ABL [name]
'I've forgotten its name, we call it whatsitsname in language, *Nawuleb.*'

Njamed can take case suffixation appropriate to its role in the phrase or clause (e.g. *njamed-no-ken, berl-no-ken* [whatsit-3POSSD-GEN arm-3POSSD-GEN] 'for one's whatsit, for one's arm').

The form *njamedme*, formed by adding the productive verbalising suffix *-me* (§8.2.3.1), means 'do whatchacallit'; in other words it is used when the speaker forgets the proper verb to describe an action. Note that this is not a genuine interrogative verb, though these exist in other Australian languages such as Dyirbal (Dixon 1972); it is not used to ask questions like 'what did X do'.

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[7] I have no other examples of this suffix. David Kanari translated the word *gun-guyenggu* as 'long run'.

7.106 *Namek   konda kanjdji Malnjangarnak laik kun-ronj and kaddum yi-na-n*
E:D   MA-DEM here   down   [place]   like IV-water up   2/3-see-NP

       ø-njamedme-ng   ku-mekke ka-re   kinga   kaluk ken kabi-kinje
       3P-do.whatsitsname-PP LOC-DEM   3-goNP crocodile then   oops 3/3h-burnNP

       njamed-yih djang-yih,   Mardayin   yoh, ka-rrurnde-ng, kinga   ø-yo.
       what-ERG   dreaming-ERG [ceremony] yes 3-return-NP   crocodile 3-lieNP
       'Malnjangarnak is lower down like the water, and further up is where whatsit, the
       salt water crocodile goes but the Mardayin power cooks/burns him yeah, and so he
       goes back.' [Bob Burrawal: Armbands Text]

Njamed can also be used to introduce a statement for which the speaker seeks evaluation
and agreement, with the meaning 'whatcha reckon?'.

7.107 *Njamed, gun-wok   ga-rayek.*
Dj   what   IV-language 3-hard
       'Whatcha reckon, it's a hard language, eh?'

7.2.4 baleh/ngayed 'where'

Baleh is found in all dialects except Gun-djeihmi, and is often used by Gun-djeihmi
speakers anyway. The final *h* of *baleh* is sometimes omitted.

Note that there are various phrasal combinations of *baleh/ngayed* plus verb, particularly
baleh/ngayed kayime 'how' 'do what' 'when' 'how many'; these combinations are treated
separately in §7.2.5.

7.2.4.1 Interrogative sense; ontological range

The basic sense of *baleh/ngayed* is '(located) where', as in:

7.108 *Ngayed   yi-yo-ø?*
Dj   where   2-sleep-NP
       'Where are you staying?'

7.109 *Kela   baleh   ka-h-ni?*   *Na-beh.*
I   [skin] where   3-IMM-sitNP   MA-YON
       'Where is Kela?'   'There.'

7.110 a. *Baleh   yi-h-di?* (W)   b. *Baleh yi-rri?* (I)
         where   2-IMM-standPI   where 2-standPI
         'Where have you been?' [E&E 100]   'Where have you been?' [GID]

Baleh can be extended to mean 'where to' (7.111). (In Gun-djeihmi this meaning is
expressed synthetically by adding the goal case to *ngayed* — §7.2.3.2.)

7.111 *Ngudda baleh   yi-re?*
I   you   where   2-goNP
       'Where are you going (to)?'

The roots (*ngayed* and *baleh*) can also be used in questions about kinship, such as 'what's your skin' (7.112), and 'what's your kin relationship to X' (7.113), presumably on the rationale that the answer 'places' the referent in kinship space.

7.112 a. *Ngayed   ngudda   yi-gurlah?* (Dj)   b. *Baleh ka-kurn   nungka?* (W)
          where   you   2-skin   where 3-skin   he
          'What's your skin?'   'What's his skin?'

7.113   *Baleh yi-yime   Kela,   nguni-rdi?*
I   where 2-say/doNP   [skin] 2ua-standNP
          'What (kin relationship) do you call Kela?' (Alternatively, this could be
          analysed as 'how are you to Kela', where *baleh -yime* means 'how' (see §7.2.5))

Sometimes *baleh* is used in asking about other linguistic information as well: it may be used instead of *-ngale* in asking for people's names (7.114), and in asking what was said (7.115):

7.114   *Yi-bengka-n   Kodjok? Baleh   nakka   ka-h-ngey-yo?*
I   2-know-NP   [skin]   where   MA:DEM   3-IMM-name-lieNP
          'You know Kodjok?   What's his name?'

7.115   *Baleh   ngundi-marne-yime-ng?*
I   where   3a/2-BEN-say-PP
          'What did they say to you?'

In Kuninjku the phrase *baleh -konom* is used to mean 'how tall':

7.116   *Baleh   ka-konom?   Na-konom-kuyeng.*
I   where   3-height   MA-height-long
          'How tall is he?'   'He is tall.' [GID]

In Manyallaluk Mayali it can be prefixed by a gender marker when used with the meaning 'which': *nabaleh* 'which one (bird)'.   And as mentioned above, 'where' is expressed in mother-in-law register by *gu-ngale*, the locative prefixed form of the 'who' root (7.68).

7.2.4.2 Relational extensions

There is some cross-dialectal variation in the case and other suffixes found with these roots.

In Gun-djeihmi the goal case is added to give the meaning 'where to', 'whither'; the *d* is (irregularly) lost before the *g*:

7.117   *Ngaye-ga   gurri-re?*
Dj   where-BEN   2a-goNP
          'Where are you mob going?'

In all dialects the ablative case is added to give the meaning 'where from', as in the following expressions used to enquire about someone's country of origin:

7.118 a. *Baleh-be   yi-m-dolka-ng?* (W)   b. *Ngayed-be   ba-rrolkka-ng?* (Dj)
          where-ABL   2-hither-get.up-PP   where-ABL   3P-get.up-PP
          'Where do you come from?'   'Where does he come from?'

The 'where' root, usually but not always with an added suffix, is used in all dialects to mean 'which'. Identification from among a set, in other words, is asked for in terms of location.

In Gun-djeihmi the 'where' root may be used by itself (7.119), or a goal suffix can be added (7.120, 7.121):

7.119   *Ngayed   na-be? /   ngal-de?*
Dj   where   MA-DEM   FE-DEM
         'Which one (masculine/feminine)'

7.120   *Ngayega na-be /   al-de /   an-de   yi-djare?*
Dj   where   MA-DEM   FE-DEM   VE-DEM   2-want
         'Which (masculine/feminine/vegetable) do you want?'

7.121   *Yi-rrang-barrme-n,   gan-bukka-n aye-ga   yi-baba-ng.*
         2-mouth-open-IMP   2/1-show-NP   where-LOC   2-hurt-NP
         'Open your mouth, and you can show me which (tooth) hurts.'

The forms *balehmanu* (W) and *balehmane* (I), appear to add a reduced form of the demonstrative *manu* 'that one (VE)'; *balehmane*, at least, can mean 'which way' as well as 'which':

7.122   *Balehmanu yi-djare?*
W   which   2-want
         'Which do you want?'

7.123   *Balehmane ngarr-ka-n   man-bolh?*
I   which   1a-take-NP   III-road
         'Which road will we take?'

In Kuninjku and Kune only, the form *balehkeno*, which adds the temporal suffix *-keno* to the 'where' root, means 'when':

7.124   *Baleh-keno   ka-wokdi   mayh?   Kaluk   ka-wurlu-wurlhme*
I,E   where-TIME   3-speakNP   creature   later   3-EXT-burn.offNP

         karri-wareyo.
         12a-enter.ceremonyNP
         'When will the ceremony happen? After, when it's burning off time, we'll go and enter the ceremony.'

7.2.4.3 Indefinite and negative pronoun uses

A few examples of indefinite pronoun use occur in the corpus. Note that as with 'what', markers of irrealis non-specific meanings (7.125) co-occur with subordinating or modal markers like *wardibu* 'maybe; try for':

7.125   *Wardibu ngayed ngarri-ma-ng gare   bogen, gare-h   danjbik ...*
Dj   maybe   where   1a-get-NP   maybe   two   maybe-IMM   three
         'Maybe somewhere we'll get maybe two, or maybe three ...'

The form *gu-bale*, formally the 'where' form plus the locative prefix (not attested elsewhere on this root), can also mean 'somewhere':

7.126	*Wanjh*	*djarre*	*gure*	*gu-bouk*		*gu-bale*		*nani.*
Dj, w	well	there	LOC	LOC-swamp		LOC-where		MA:DEM

'Well, a long way away there's a small swamp somewhere.'

Both 'where' and 'which' forms can also function as negative pronouns; the 'which' form here means something like 'in no direction, no (way) which' (see also (5.213)).

7.127	*"Karrang,*	*minj*	*baleh*	*ngarr-e?"*	*"La*	*bonj*	*wanjh*	*kan-bu-n*	*ngarrku",*
I	mother	NEG	where	12-goNP	CONJ	finished	then	3/1a-kill-NP	us

wanjh	*ben-nganenghme-ng*	*bonj*	*ben-nguneng*	*yo*
then	3/3plP-refuse.permission-PP	finished	3/3plP-eatPP	yeah

ben-kudjihmeng	*bonj.*
3/3plP-put.in.place.foreverPP	finished

"Mother, is there nowhere we can go?" "It's the end, it's going to eat us both." Then it wouldn't let them go, it ate them, and left them there.

7.2.5 baleh/ngayed ... yime *'do what; how; when; how many'*

This collocation, which combines the 'where' root with the verb meaning 'do; say', expresses a wide range of meanings. With some meanings the prefix is fixed for person and number; with others it varies with the subject.

In Manyallaluk Mayali there is evidence that the sequence *baleh gayime* has been lexicalised into a single word, since the prefix *ngan-* (class III, in its 'manner' use) can be attached to the whole complex, as in:

7.128	*Jarran* [Kriol]	*gayawal*	*ngan-balegayime*	*ngurri-bu-n?*
MM	that	[yam.sp.]	MAN-how	2a-hit-NP

'How do you prepare that *gayawal* yam?'

7.2.5.1 Interrogative use; ontological range

The roots *baleh* and *ngayed* actually combine with a number of verb roots to give specific ignorative phrases (§7.2.4.2), and it might be argued that the general meaning of *baleh* and *ngayed* is 'how' when combined with a verb root. However, the specific question 'how' is always posed with *baleh/ngayed* plus either *yime* or its derivative *yimiwo* 'do like this':

7.129	*Wardi*	*kan-bukka-n,*	*baleh*	*ka-yime?*
I	might	2/1-show-NP	where	3-doNP

'Can you show me what you do?' 'How you do it?'

7.130	*Baleh*	*nga-yimiwo-n?*
I	where	1-do.like.this-NP

'How do I do this?'

With the meaning 'do what', the prefix varies with the subject:

7.131	*Baleh*	*ø-yime-ng?*
W	where	3P-do/say-PP

'What did he do/say?'

7.132   *"Ayed   garri-yime? Nga-rrenge-mok" ba-yime-ng.*
Dj   where 12a-doNP   1-foot-sore   3P-say-PP
         '"What are we going to do? I've got a sore foot" he said.'

The meaning 'when' is also expressed by this combination, with fixed third person minimal prefix. (Note that Kuninjku and Kune use the form *balehkeno* for 'when' — see §7.2.3.2.) In Kunwinjku it is possible to vary the tense on the ignorative verb to agree with that of the main verb (7.133, 7.134), but in Gun-djeihmi it is fixed as non-past (7.135a,b):

7.133   *Baleh   ka-yim-e   yi-m-re?*
W   where   3-do-NP/F?   2-hither-goNP
         'When are you going to come?'

7.134   *Baleh   ø-yime-ng   yi-yame-ng   kornobolo?*
W   where   3P-do-PP   2-spear-PP   wallaby
         'When did you spear the wallaby?'

7.135 a. *Ngayed ga-yime yi-re?*   b. *Ngayed ga-yime yi-m-wam?*
Dj   where   3-doNP   2-goNP   where   3-doNP   2-hither-goPP
          'When are you leaving?'   'When did you come?'

It may also mean 'how many' (7.136–7.139). In this construction the TAM suffix is invariably non-past, but in Kunwinjku the pronominal prefix shows number for human subjects (7.137). In Gun-djeihmi both prefix and suffix are invariant.

7.136   *Baleh   ka-yime   kunj   yi-bom?*
W   where   3-doNP   kangaroo 2-killPP
         'How many kangaroos did you kill?'

7.137   *Baleh kabirri-mirnde-yime ngundi-bom?*
W   where 3a-many-doNP   3a/2-hitPP
         'How many people hit you?'

7.138   *Ngayed   ga-yime   al-beiwurd   yi-garrme?*
Dj   where   3-doNP   II-child.of.male 2-haveNP
         'How many daughters have you got?'

7.139   *Ngayed   ga-yime   yi-yo   gu-behne?*
Dj   where   3-doNP   2-lieNP   LOC-DEM
         'How many (nights) are you camping here?'

In the mother-in-law language the verb root *yime* is replaced by its correspondent *dakalhme*. Note that although the verb root is replaced by its mother-in-law correspondent, the ignorative root *baleh/ngayed* itself, like all other ignorative roots, remains unchanged.

7.140   *Ayed   garri-dagalhme, gun-djule-yagura.* (k.k.)
Dj   where   12a-doNP   IV-tobacco-PRIV
         'What are we going to do, (I've) got no tobacco.'

7.2.5.2 *Some specific derivatives*

With incorporated *kuk* 'body' this phrase means 'look like what':

7.141   *Baleh   ka-kuk-yime?*
I   where   3-body-doNP
         'What does (s)he/it look like?'

And with *yimerran* 'happen', *ngayed/baleh* means 'what happens' or, if the benefactive applicative is added, 'what happens to X':

7.142   *Baleh   ngun-marne-yimerra-nj?*
I   where   2/3-BEN-happen-PP
         'What happened to you?'

7.2.5.3 Indefinite and negative pronoun uses

Indefinite uses of this ignorative set are rare, but see 7.165, in which *ngayed ga-yime* combines with the plural demonstrative *anegebu* to mean 'do all sorts of stuff'. Dj *ngayed gayimerran* and *ngayed gabolkyimerran* are also attested with the meanings 'whatever should happen' and 'if the time should come', again in combination with either the subordinating conjunction *bu* (Text 9.20) or the modal adverb *gare* 'maybe' (7.143).

7.143   *Galuk   gare,   ngayed ga-bolk-yimerra-n,   gare,   an-buyiga djandi,*[8]
Dj   then   maybe   where   3-place-turn-NP   maybe   VE-other   Sunday

         bu   nungan ...   gare   bu well   gabarri-wo-n   time off,   ngarri-yime
         SUB   heEMPH   maybe   if   3a/3-give-NP   1a-doNP

         gare,   bu   larrk   minj   ga-garrme-ø.
         maybe   SUB   nothing NEG   not 3-have-NP
         'Then maybe some time whenever the time comes, maybe some other Sunday,
         when he ... maybe if they give some time off sometime, maybe we'll do this
         (again), when he's got nothing to do.'

Baleh ... yime is attested in Kune with the further sense 'this is how ...', 'what we do ...' (with 'we' prefix):

7.144   *Kuybuk   na-mekke baleh   ngarri-yime ...*
E:N   banksia.dentata   MA-DEM   where   1a-doNP
         'With (the inflorescences of) the swamp banksia what we do is ...'

There is also one example of *baleh kayime* in a negative context, with the meaning 'in no way':

7.145   *Aa,   nga-kerlkda-nj,   minj   bale   ka-yime   nga-re*
I   ah   1-become.soft-PP   NEG   where   3-doNP   1-goNP
         'My leg's gone weak, I can't walk (i.e. there's no way I can walk).'

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8   Djandi may mean either 'Sunday' or 'week' but the first sense was intended here.

7.3 Demonstratives

Bininj Gun-wok has a rich set of demonstratives. Though there is significant cross-dialectal variation, in all dialects they convey information about spatial deixis (proximity to speaker, hearer etc.), discourse status ('that mentioned before', 'that just mentioned'), assumptions about the hearer's attention ('that one I'm indicating now', 'that one whose identity I expect you can recover from the following word(s)'), and various combinations of the above (e.g. 'this here, which you wanted to know about', 'the one that was just here, or was just mentioned'9).

There are distinct prefixes for each gender found in the particular dialect; demonstratives prefixed for the vegetable gender or with the locative have mostly accrued semantically specialised demonstrative-adverb functions (which will be discussed along with other gender-prefixed forms of the equivalent root). There is more haphazard coding of number, through pronominal prefixation and/or distinct root forms depending on the dialect.

Most can be used either as modifiers (i.e. adnominally) or independently (i.e. pronominally), with the relative frequency of these options varying from demonstrative to demonstrative — this will be mentioned on a case by case basis. In general the forms referring to entities immediately present or just mentioned favour more independent use, while those pointing further back in the discourse are usually placed next to a head nominal.

The large number of distinctions encoded in the demonstrative system allows them to play a crucial role in the management of reference. We shall see in §10.2.8 that pronominal cross-referencing on the verb brings no presuppositions about referentiality: a sentence like 'maybe I/her-again-marry' can mean 'maybe I will marry someone again' as well as 'maybe I will marry her again'. These underspecifications in the system of pronominal prefixation to the verb are partly made good by the use of demonstratives to fix the reference of a noun phrase, in terms of coordinates of space, the unfolding discourse, and assumptions about the hearer's cognitive state.

Most existing works on Kunwinjku (e.g. Capell 1940; Oates 1964; Carroll 1976, 1995) merely exemplify some of the demonstratives without discussing the semantic contrasts involved. Capell labels them 'definite article', Oates 'indicative adjectives', Carroll 'determiners'. Etherington and Etherington (1994:101) devote about a page to the topic and have some discussion of their meaning, though without dealing with all forms or citing textual examples.

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9   Himmelmann (1997:62ff.) rightly points out that the term 'anaphoric' is not always appropriate (for cases when the presumed mental accessibility of the referent to the hearer is not based on prior mention in the same discourse), and proposes the term 'anamnestic' functions to cover uses motivated by assumptions about the hearer's memory for the referent. Though this term is useful, I regard it as characterising a semantic dimension only, rather than a precise value on that dimension, since 'memory' can be evoked in much more specific ways: with *nabehrnu* the cognitive component is 'which you wanted to know about', whereas with *nakka* it is 'which was just mentioned, or was just here' (which could arguably be unified along the lines of 'which I assume you were recently paying attention to'). Similar remarks apply to his term 'recognitional' (Himmelmann 1996:230), where 'the intended referent is to be identified via specific, shared knowledge rather than through situational clues or reference to preceding segments of the ongoing discourse'. For these reasons, and in the interests of falsifiability, I use more precise natural-language paraphrases which allow us to combine rather precise specifications on a number of dimensions.

More than any other word class, demonstrative semantics require lengthy in-depth study, large corpora, and detailed recording of context and accompanying gesture (see Himmelmann 1996; Wilkins 1989), and we lack this for even one dialect of Bininj Gun-wok.[10] Moreover, the prima facie evidence suggests that the systems are far from parallel across dialects. For these reasons, the following section must be regarded as preliminary, and does not claim to give equal coverage to all dialects. I begin by examining the Gun-djeihmi system in some detail, with brief remarks on different conditions applying to the comparable forms in other dialects. I then summarise, briefly, the systems found in the other dialects.

7.3.1 *Gun-djeihmi and Gun-dedjnjenghmi*

Demonstrative roots in Gun-djeihmi combine with the three gender prefixes and the locative prefix *gu-*. Unlike Kunwinjku (§7.3.2.1), which has the pronominal-prefixed forms *birri-mekbe* 'they aforementioned' and *benemekbe* 'they two aforementioned' alongside gender-prefixed forms like *namekbe* 'that man aforementioned', pronominal prefixes do not combine with demonstrative roots in Gun-djeihmi.

In many cases the resultant forms are slightly irregular, with morphophonemic rules specific to demonstratives. Known Gun-djeihmi forms are given in Table 7.5; note that some parts of the paradigm are unattested. In discussions below I name each series after the masculine form, which is unmarked (§5.5). Gun-dedjnjenghmi forms appear to follow a very similar system and will also be discussed in this section.

Because of the non-equivalence of semantic categories across dialects, and the incomplete information on demonstrative semantics in some dialects, the glosses given Table 7.5 will not generally be used outside this chapter.

Table 7.5: Demonstratives in Gun-djeihmi

Series (masc. referential form in *na-*)	Base	Rough meaning	Gloss	Feminine in *ngal-*	Vegetable in *ngan-*	Locative in *gu-*
namege	*-mege*	'that; afore-mentioned'	ANA	*ngalege*	*nganege*	*gumege*
namegebu	*-megebu*	'(all) those'	ANA.PL	*ngalegebu*	*nganegebu*	*gumegebu*
namekke	*-mekke*	'that mentioned just before'	ANA.IMM	*ngalekke*	*nganekke*	*gumekke*
namekbe	*-mekbe*	'from over there'	ANA.ABL			*gumekbe*
nabe	*-be*	'yon, that beyond/outside'	YON	*ngalbe*	*ngande*	*gube*
nabehne (*~nehne*)	*-behne*	'coming this way from there; turning now to speak of'	YON.CENTRIP	*ngal(d)ehne, ngalwanehne*	*ngandehne*	*gubehne*
nabehdjam	*-behdjam*	'that over there'	YON.ID	*ngaldehdjam*	*ngandehdjam*	*gubehdjam*

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[10] See Glasgow (1964), Glasgow and Glasgow (1994) and especially Wilkinson (1991) for relatively detailed treatments of demonstratives in languages just to the east, respectively Burarra and Djamparrpuyngu.

nabernu	-bernu	'the one which you wanted to know about, which is over there'	REM	ngalernu	ngandernu	gubernu
nabehrnu	-behrnu	'the one which you wanted to know about, which is here'	REMEM		ngandehnu	guberhnu
nani(h)	-ni	'that/this (now) in a series'	PROX.SER		ngani(h)	guni(h)
nanibu	-nibu	'these ones (being contrasted)'	PROX.SER.PL			
nahni	-hni	'this here with us'	IMM	ngahli	nganhni	guhni
nakka	-kka	'that just mentioned/that was just present'	IMM.PREV	ngalkka, ngalukka	(Dnj makka)	
nawu	-bu	(a) relative pronoun (b) 'that which you should be able to identify when I mention its name'	REL	ngalu	ngandu, nganbu	gubu

A few remarks on form:

(a) It can be seen that the bases fall into groups, built on the sequences *mek, be, ni, kka* and *bu*, with various further suffixations, the insertion of glottal stop at the end of the first, second or third syllables, and irregular minor changes of consonant or vowel, such as the weakening of *b* to *w* in *nawu*, (though E has *nabu*), its loss in *ngalu* and optional assimilation of place in *ngandu* (though Dnj also has *nganbusee* Text 2.8), and the loss of initial *m* from the *mek* base after the apical-final feminine and vegetable prefixes. However, the exact meaning of these formatives can be variable in some of these sequences: *be* has a distal meaning in *nabe* and *nabernu*, for example, in *nabehne* makes a contribution to the complex meaning 'coming this way from there; turning now to speak of', and in *namekbe* is simply an ablative (though in Kunwinjku this form has lost its ablative meaning). Diachronically all senses may have developed from an original free form *beh* meaning 'away' (see discussion in §5.2.1.1).

(b) Assigning meanings to some of the other formatives is more straightforward: post-base *-bu* is clearly associated with plural referents (though relative *-bu* is not), glottal *h* marks 'immediacy'[11] in space or attention as it does with verbs (§11.4.3), and final *-nu* (possibly reduced from the dubitative *nuk*) with 'previous interest by hearer'.

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[11] Interestingly, immediacy is marked, in the case of the pair *namege* 'that mentioned' and *namekke* 'that just mentioned', by consonant lengthening rather than the glottal stop. Though the combination of glottal stop plus short stop does not normally yield a long stop in Bininj Gun-wok, the reverse process (long stops dissimilating to glottal plus short stop) does occur in some neighbouring languages, such as Rembarrnga (McKay 1975).

(c)   The *nakka* series stands out phonologically as an almost unique example of a morpheme beginning with a long consonant (§2.3.1). No vegetable form is attested in Gun-djeihmi (by analogy one would expect *ngakka*). But Gun-dedjnjenghmi, which mixes *ngan-* and *man-* forms for the vegetable series of demonstratives, uses the form *makka*; Manyallaluk Mayali is similar (see below). The Kunwinjku and Gun-dedjnjenghmi forms of this demonstrative appear to preserve an original nominative form *ma-* of the vegetable prefix, which everywhere else have yielded to the generalisation of the form *man-* (see Heath 1987).

(d)   The initial *n* of the masculine forms is frequently dropped, giving *akka* alongside *nakka*, *amekke* alongside *namekke*, and so forth. Initial *n*-dropping is otherwise unattested in Gun-djeihmi, though *ng*-dropping is a regular option (§2.4.2), and the Western Gunwinyguan language Warray has changed masculine *na-* to *a-* in all environments.

(e)   For the *mek-* set only, the prefix *djal-* 'just' can be placed between the gender prefix and the base; when this happens the *m* may assimilate to the apical articulation of the *l* giving such forms as *gudjalnekke* 'just there/then, right there//then', alongside unassimilated forms like *gudjalmekke*; similarly *andjalnekke* 'just like that'.

By far the two commonest series are the *namege* series, for 'that (over there)' or 'that (aforementioned)', and *nawu* for 'that (whose name I will now mention)' or as a relative pronoun. I will deal with these two first, then the others in the order of the Table 7.5.

7.3.1.1 namege set 'that over there, that aforementioned'

In Gun-djeihmi, this is used both spatially (for remote entities) and anaphorically (for previously mentioned entities), with the latter use predominant (hence the gloss ANAphoric). In other dialects only the anaphoric use is found. It is almost always used adnominally (i.e. occurs adjacent to a nominal head), but rare pronominal (i.e. independent) uses are attested, such as 7.152 below.

When used as a spatial demonstrative it means 'that there' or 'that over there', contrasting with *nabehne* 'this here' or *nahni* 'this here with us'. It agrees in gender with the noun it modifies.

7.146 a. *na-mege   bininj*   b. *ngal-ege   daluk*
Dj   MA-ANA   man   FE-ANA   woman
          'that man (over there)'   'that woman (over there)'

      c. *an-ege   an-me / gubunj / gun-wok / gun-warde*
          VE-that   III-food   canoe   IV-word   IV-rock
          'that food/canoe/word/rock over there'

7.147   *Djang   ba-yimerra-nj   gorro:go, an-ege   an-godjboyorr,*
Dj   dreaming.site   3P-turn.into-PP before   VE-ANA   VE-washaway

         djama   ngan-gabo-duninjh.
         not   VE-billabong-real
         'It became a djang (dreaming site) long ago ... that washaway there, it's not really a billabong.'

7.148   *Ga-rrulk-gimuk   an-ege,   ga-rrulk-yahwurd   ngan-dehne.*
Dj   3-tree-big   VE-ANA   3-tree-small   VE-YON.CENT
         'That tree is big; this tree is small.'

Namege is also the unmarked series for NPs that are given in the discourse. It may occur before (7.149) or after (7.150, 7.151) its head, or independently (7.152). The difference between independent and adnominal use is, however, not easy to establish analytically: where the noun it modifies is incorporated into the verb (e.g. Text 9.8), is this an independent use that happens to refer to the same entity as an incorporated noun, or is it an adnominal use whose head noun has been incorporated?

7.149   *Yi-bawo   an-ege   gun-wok.*
Dj   2-leaveIMP   VE-ANA   IV-word
         'Forget that word (which I told you before).'

7.150   *Yawurrinj   bandi-gurrm-i, barri-ni   gure gu-rurrk.   Barri-djal-ni*
Dj   young.men   3a/3pl-put-PI   3aP-sitPI LOC   LOC-shelter   3aP-just-sitPI

         marrek barri-woh-bolkna-yi   gu-red   gayakki, dja   barri-djal-ni
         not   3a/3P-bit-look.around-IRR   LOC-camp   nothing   and   3aP-just-sitPI

         gu-rurrk   gu-mege.
         LOC-shelter   LOC-ANA
         'They put the young men there, to sit inside the shelter. They just sat there, and weren't allowed to look around the camp at all, and they just sat there in the shelter/inside there.'

7.151   *Galukborrk ba-werrhme-ng, gorrogo ba-rrolga-ng wanjh, gun-barlkbu*
Dj   long.time   3P-rake-PP   before   3P-rise-PP   then   IV-digging.stick

         an-ege   bi-rrerlme-ng.
         VE-ANA   3/3hP-throw-PP
         'She raked them up for a long time before he suddenly flew up. She threw that digging stick at him.' ('digging stick' is not overtly mentioned but is given by the frame.) [T 1.53–54]

7.152   *Gure bi-djal-yawa-ni   ganjdji ba-djal-wokda-nj na-mege.*
Dj   LOC   3/3hP-just-look.for-PI under   3P-just-speak-PP MA-ANA
         'While she was looking for him inside there that one (quail) spoke up.'
         ('quail' is pronominal object of preceding clause, and overtly mentioned in line 48.)
         [T 1.51]

The following example shows a typical progression from introduction of a participant as a bare noun, to modifying it with a *namege* series demonstrative in a subsequent clause.

7.153   *Bikibiki an-ngorrme-ng   an-wayhge-ng, wanjh a-rrolkka-ng, an-warrhke-ng,*
Dnj   pig   3/1-pick.up-PP   3/1-lift-PP   then   1/3-get.up-PP   3/1-drop-PP

         wanjh a-rrolkka-ng, an-warrhge-ng na-mege bikibiki,   because
         then   1/3-get.up-PP   3/3-drop-PP   MA-ANA pig

na-bang-kirridjdja-ni
MA-fierce-really-P
'A pig picked me up off the ground with his shoulders, then I got up, he dropped me down, then I got up, that pig dropped me down, because he was really fierce.'

The form *na-ge*, recorded once from NK, may be a contraction of *namege*:

7.154	*Ngabard*	*bi-bom*	*na-ge*	*bininj,*	*nga-bu-n*	*nungan=wali*	*ga-guk-yo.*
Dj	father	3/3-killPP	MA-ANA	man	1/3-hit-NP	himEMPH=in.turn	3-body-lie

'That man killed my father, and I'll kill him in revenge.'

The *an*-form *anege*, when used alone, may be used as an adverbial demonstrative, with the meaning 'like that' or 'that state of affairs'. This use, which I gloss separately, is in addition to its regular adnominal demonstrative use, exemplified in 7.166c and 7.147–7.149. The association with the *(ng)an-/man-* prefix with manner was noted in §5.2.2.4.

7.155	*Gu-berrk*	*gabarri-yo*	*gabarri-bo-djare*	*gukku*	*gabarri-bongu-n.*
Dj	LOC-dry.scrub	3a-lieNP	3a-liquid-wantNP	water	3a-drink-NP

	gukku	*nganege*	*barri-bo-garrm-i*	*ganjdji,*	*gabarri-yó.*
	water	like.that	3a/3P-liquid-hold-PP	inside/under	3a-lieNP

'They're staying in a dry place and want to drink some water. They (the parents) can hold the water underneath like that there (in their crops) while they sleep.'

7.156	*Galuk*	*yerrega*	*bu*	*ga-nudme-n*	*anege*	*ga-ngu-n,*	*an-djal-nekke*
Dj	later	afterwards	SUB	3-rot-NP	like.that	3-eat-NP	VE-just-that

	an-garre	*nuye*	*na*	*ginga* ...
	III-custom	his	now	estuarine.crocodile

'Till later, afterwards, when it rots, that's how he eats it. Its just as I have just told you, his custom, the estuarine crocodile ...'

7.157	*barri-na-ni*	*gun-murrung*	*that*	*skeleton*	*anege*	*ba-yim-i*	*na-wárre-ni*
Dj	3a/3P-see-PI	IV-bone			like.that	3P-do-PI	MA-bad-P

	na-mege	*na-marnde*	*Daddubbe*	*ba-ngei-yo-i*
	MA-that	I-devil	[name]	3P-name-lie-PI

'and they would see the skeletons, that would be the evil work of that bad devil called Daddubbe'

The locative form *gumege* means either 'then, at that time' (7.158) or 'there, at that place' (7.159). Its ablative form *gumegebe* means 'from there, after that, from then' or (as a clausal conjunction) just 'after':

7.158	*galuk*	*ga-guk-nudme-n,*	*wanjh*	*gu-mege*	*ga-ngu-n.*	*Djama*
Dj	later	3-body-rot-NP	then	LOC-ANA	3-eat-NP	not

	ga-bangmi-ngu-n	*an-bu*	*wanjh*	*ga-gulba-re*	*na-gerrnge.*
	3-not.yet-eat-NP	VE-REL	then	3-blood-goNP	MA-new

'and when later the body rots, that's when he eats it. He doesn't eat it yet when there's fresh blood flowing.'

7.159   *bonj*   *bu*   *man-ih*   *garrgad*   *ngarri-re-i ma-hni* *anbu*
Dnj   finished SUB   VE-PROX.SER   high.country   1a-go-PI   VE-IMM   then

   Jabiru-genh. Warnbi   arri-yo-i.   Gu-mege-be   yigah-be
   [place]-GEN   [place]   1a-sleep-PI LOC-ANA-ABL   some-ABL

   arri-yorrme-i   darn.gih ...
   1a-walk.in.a.group-PI   close
   'Right, we'd go on, up in the high country. There then, near Jabiru. We'd sleep at
   Warnbi. From there we'd be walking in different groups, close ...'

Reduction of *gumege* to *gumeh* is attested in front of a following velar stop (e.g. *gumeh gayo* 'that's where he rests' instead of *gumege gayo*).

In addition to the above uses, relative clauses on places ('the place where ...') are usually formed with *gumege* with or without the general subordinator *bu*.

7.160   *An-bolk-bukka-ng   gu-mege,   bu   nungga   ba-rrang-inj.*
Dj   3/1-place-show-PP LOC-that   REL   he   3P-stand-PP
   'She showed me the place where he was born.'

7.161   *Cooinda Hotel,   wanjh   gu-mege gun-bang   ngarri-h-bo-ma-ng ...*
Dj   then   LOC-that IV-grog   1a-IMM-liquid-get-NP
   'Cooinda Hotel, there where we get grog ...'

Demonstratives of this series have a plural set available, formed by suffixing *-bu*. As mentioned in §5.5.4.2, plurals normally take the masculine prefix (7.162, 7.163). In 7.164, however, the vegetable prefix is used, reflecting lexicalisation with a meaning something like '(doing) all that stuff, that sort of thing', modifying the complex ignorative *ngayed gayime* 'do something/somehow'.

7.162   *and some, al-gaihgo   daluk   ba-bimbo-m,   bininj*
Dj   Al-gaihgo woman   3P-paint-PP   man

   bandi-h-worrum-bokka-rre-ni   just for sex I think, because
   3a/3plP-IMM-around-chase-RR-PI

   bininj   barri-djare-ni   na-megebu   daluk
   man   3a/3-want-PI   MA-those   woman
   'and some painted female Algaihgo figures, they who were always chasing
   around after men, just for sex, I think, because those (*algaihgo*) women were
   always wanting a man.'

7.163   *Barri-marnbo-m   rouk,   barri-bebbe-ganaga-ng gun-berd,   gun-dad,*
Dj   3a/3P-prepare-PP all   3aP-each-carryITER-PP IV-tail   IV-leg

   njanjuk   ná-megébu   barri-bebbe-ganaga-ng.
   anything MA-those   3aP-each-carryITER-PP
   'They got it all ready, and they each took their sharetail, thigh, all that sort of
   stuff, they each carried off their share.'

7.164   *Gun-boi   barri-me-i,   barri-mudginje-ng, ngayed barri-yime-ng,*
Dj   IV-cooking.stone 3a-pick.up-PP 3aP-singe.fur-PP   how   3a/3P-do-PP

an-egebu.
VE-all.that
'They got the cooking stones and singed its fur, that's what they did, all that sort of stuff.' [T 1.34–35]

7.3.1.2 nawu *set*

Formally, the postulated root *bu* (possibly cognate with the free subordinator *bu*), has undergone irregular lenition in the masculine form *nawu*, irregular loss of initial *b* in the feminine form *ngalu*, and irregular assimilation (optional) of place in the vegetable form *ngandu ~ nganbu*. Other dialects preserve the unchanged *bu* forms: *nabu* is used instead of *nawu* in Kune,[12] *ngalbu* instead of *ngalu* in Kunwinjku and Manyallaluk Mayali, and *manbu* (with the full root, and m-initial vegetable prefix) in Kunwinjku.

This has two functions; I will use the gloss REL in both cases.

(a) As a relative pronoun — see §14.3.

(b) For first mentions (7.165, 7.166) or first re-mentions (7.167) of participants that should be readily identifiable once linguistic identification is made through naming (this is close to the 'recognitional' function described by Himmelmann (1996:230)). Because identification is mediated by labelling rather than pointing or anaphoric reference, it is never used without some further descriptive material (i.e. independently), which may range from a noun to a relative clause; syntactically it is therefore always adnominal and never pronominal. The only exceptions are when it combines with another demonstrative (7.206), or with the *(ng)an*-prefixed forms lexicalised with the meaning 'then, at that time' (7.170, 7.171).

A notable feature of the Aboriginal English of the region, as well as of the English used to Aboriginal people by many *balanda*, is the use of 'that' for entities identifiable in the same way (e.g. 'I talked to that Peter Wellings' or 'they bin come with that school truck'), where 'that' would be rendered by a definite article in standard English (or by zero in the case of a proper name). In translations below I add such uses of 'that' in brackets after translations with the definite article.

7.165   *Aleng   al-wanjdjuk   ba-m-durnd-i.*   *"Maih   na-wu,   gunj   na-wu*
Dj   she   II-emu   3P-hither-return-PP   animal MA-REL   kangaroo MA-REL

 bonj   andi-wo,   gunj   andud."
 OK   2a/1-giveIMP kangaroo   then
'The emu came back. "Right, that animal, that kangaroo, give it to me/give me some then!" (Emu has just returned, and these are her first words) [T 1.45]

7.166   *Really dry,   barri-re-i   bamurru   barri-ngu-ni.   Like they bin allday go*
Dj   3aP-go-PI   goose   3aP-eat-PI

 in the goose camp, you know? Have goose up there, anything. Lily root,

 an-dem,   an-gurladj,   Well sometimes   barri-re-i   gonda
 III-lily   III-spike.rush   3aP-go-PI   there

---

[12]   The form *ngalbu* has been recorded once from a Gun-djeihmi speaker.

garrigad   na-wu ...
high.country   MA-REL
'When it was really dry they'd go and eat magpie geese, lily root, the white-flowered
lily, the corms of the spike rush, when they'd go up into the ('that') high country ...'
(first mention of the high country after some lines discussing lowland activities)

7.167   *Njamed*   *na-wu,   ragul*   *nungga   gun-dulk ba-me-i.*
whatchamacallit   MA-REL   red.eyed.pigeon he   IV-stick   3P-get-PP
'That whatchamacallim, the red-eyed pigeon, he picked up a stick.

"*Aye,   a-nud-gorrhge*"   *ba-yime-ng,   barri-dolkga-rr-inj rouk.*
me   1/3-pus-burstNP 3P-say-PP   3aP-get.up-RR-PP   all
'"Me, I'll burst the pus out", he said. And they all got up.' (first mention of *ragul*
as a major participant, though it had been included in a list of birds seven lines
earlier)

An interesting example of the use of *nawu* for re-mentions is 7.168, in which the many
birds introduced earlier in the text as bare NPs, and many of which played no part in the
intervening story, are all reintroduced at the end of the story with *nawu*. The most recently
mentioned of them, *djirndi*, is modified by *nawu* and *namege*:

7.168   *Djirndi na-wu   na-mege goddoukgoddouk   na-wu   gorlobbok*
Dj   quail   MA-REL   MA-that bar.shouldered.dove MA-REL peaceful.dove

na-wu   merengmerenggidj na-wu   njamed   na-wu   wirriwirriyak,
MA-REL   [bird name]   MA-REL   whatsit   MA-REL   cuckoo.shrike

na-wern-gen   bininj.
MA-many-GEN people
'That quail and that bar-shouldered dove and that peaceful dove and that
merengmerenggidj and that whatsit, the cuckoo-shrike, all the many people.'

Nawu series pronouns are also used with afterthought expressions:

7.169   *Ba-yerrng-yiga-ni   ba-djoleng-m-inj   ba-ru-y   na-wu   gunj.*
Dj   3P-wood-fetch-PI   3P-cooked-INCH-PP 3P-cook-PP MA-REL   kangaroo
'While she (emu) was getting wood it got cooked and ready, that kangaroo.' (The
kangaroo had been a core participant in lines 26–27, 34, 36–37.) [T 1.39]

The *(ng)an*-prefixed form of this demonstrative — either *anbu* or *andu* (sometimes with a
final *d* inexplicably added: *andud*) — has a second, lexicalised sense, in which it means
'then, at that time' (7.170, 7.171, see also Text 1.45).

7.170   *Ngarri-dukka-ni   warreh   ngarri-dukka-ni andu barna   arri-re-i,*
Dnj   1a-tie-PI   poor.feller 1a-tie-PI   then   looks.like 1a-go-PI

goyek ngarri-yauh-dulubu-ni   an-gorle-dorreng.
east   1a-again-go.straight-PI III-spear-with
We'd tie them up in bundles, poor us (working so hard), we'd tie them up, then —
looks like we'd have to go. And we'd head off straight to the east again with the
spears.'

7.171   *Bula   kan-ka-ng   ngadberre andu, bula   yi-yime,*
Dnj   earthquake   3/1pl-take-PP us   then   earthquake   2-callNP

> *njale-makka   bula?*
> what-then   earthquake
> 'An earthquake struck us then, what do you say for *bula*?'

7.3.1.3 *namekke* set *'exactly that one mentioned just now'* (glossed ANA(*phoric*) IMM(*ediate*)).

Morphologically this is identical to the *namege* series, but with the last consonant fortis. This may be an irregular result of inserting the 'immediate-marking' glottal stop, which would give *namehge* or *namegeh*. Semantically it is also similar to the *namege* series in referring back to the last-mentioned participant, but with the added implication 'that one just now' or 'just then, right there'.

7.172   *Gamak   ngan-ekke.*
Dj   good   VE-ANA.IMM
          (in a discussion of houses, in which the enumeration of a number of badly built shacks was followed by the mention of a brick one:) 'Now that house now is OK.'

7.173   A: *Namorrorddo*   *'e bin live before mightbe 'e bin die na*   *ø-dowe-ng*
Dj   [malignant being]   3P-die-PP

                gare [laughter].
                maybe

          B: *Ga-djang-di*   *gu-mekke?*
                3-sacred.site-standNP   LOC-ANA.IMM

          A: *Ya   djang,   na-bang-ni   Namorrorddo   na-mekge.*
                yeah   sacred.site MA-dangerous-P   [name]   MA-ANA.IMM

          A: 'Before there was a Namorrorddo there but maybe now it is dead.'

          B: 'Is there a sacred site there?'

          A: 'Yes, a sacred site for that dangerous Namorrorddo there.'

Two forms of this root have been lexicalised with *djal-* 'just': *andjalnekke* means 'exactly as was just said' or 'just like that', and *gudjalnekke ~ gudjalmekke* 'precisely then'.

7.174   *andjalnekke   an-garre   nuye na   ginga*
Dj   just.like.that   III-custom his   now estuarine.crocodile
          'it's exactly like that (just as I have just told you), his custom, the estuarine crocodile'

7.175   *Na-wu   gudjalmekke gu-mege bim   ba-bimbo-m,*
Dj   MA-REL   just.then   LOC-that painting 3P-paint-PP

          ba-bim-gurrme-rr-inj   ba-yime-ng, "Aa, bonj!"
          3P-image-put-RR-PP   3P-say-PP   Ah OK
          'At the very moment when someone would do that painting there, he was fixed as an image there, and said, "Ah, OK".'

7.176   *Wou, gudjalmekke nga-marne-yolyolme-ng, ngan-garre djumbung-hgen.*
Dj   yes   just.then   1/3-BEN-tell-PP   III-way   short-GEN
          'Yes, when I was just telling him now, I just talked for a short time.'

7.3.1.4 namekbe *set 'from that one'*

In Gun-djeihmi and Gun-dedjnjenghmi this is effectively an ablative form of the *namege* series, with the ablative *-beh* contributing the spatial meaning 'from (there)' (7.177), or, in the case of the locative-prefixed form *gumekbe*, the temporal meaning 'after (that, then)' (7.178). To express the meaning 'after (that, then)' the ablative of the anaphoric form, namely *gumegebe*, may also be used (see §7.3.1.1). In fact it is likely that the *-mekbe* series is a reduced form of the anaphoric plus ablative sequence *-megebe*.

7.177	*Ba-m-bo-re-i,*	*ba-bo-lobm-i*	*an-bo-gimuk*	*gorrogo*	*bininj*
Dj	3P-hither-liquid-go-PI	3P-liquid-run-PI	VE-liquid-big	before	person

barri-worrm-i   barri-m-re-i,   na-mekbe   Pine Creek-be   yiga
3aP-swim-PI   3aP-hither-go-PI MA-ANA.ABL   -ABL   some
'When the floodwaters used to come running high, in the old days people used to come swimming across, sometimes from there at Pine Creek.' (spoken at Cooinda)

7.178   *Alwanjdjuk,   wanjh   gumekbe albinjgobeng yayau   gabani-larlme-rr-en,*
Dj   emu   well   after   wife   chicks   3ua-divide-RR-NP

ngaleng   ga-ga-n   na-gudji   yau.   Nungga   nabininjgobeng   ga-ga-n
she   3/3-take-NP MA-one   chick he   husband   3/3-take-NP

gun-bid-bogen.   Wanjh   gare   albininjgobeng   ga-ma-ng   na-buyiga
IV-hand-two   then   maybe   wife   3/3-take-NP MA-other

bininj   alwanjdjuk,   wanjh   nungan-wali   nabininjgobeng   ga-ma-ng
man   emu   then   he-in.turn   husband   3/3-take-NP

ngal-buyiga   daluk   al-wanjdjuk.   Djalbonj,   gumekbe   gabani-yarlarrme,
FE-other   wife   II-emu   finished   after   3ua-split.upNP

djama   gabani-yawoh-ma-rr-en.
not   3ua-again-marry-RR-NP
'Emus, well after the wife (and husband) divide their chicks between each other, she takes one chick, and he, the husband, takes ten. Then the wife maybe takes another husband emu, while the husband, for his part, takes another wife emu. And that's it, after they split up they never mate with each other again.'

7.3.1.5 nabe *set*

This is used to mean 'yon, that (coming from) beyond; that far from speaker and hearer':

7.179   *na-be   bininj*
Dj   MA-YON   man
         'that man, see him long way' [VL]

7.180   *Ga-gurre-n   na-be   ga-rrenggelhme.*
Dj   3-lie-NP   MA-YON   3-limpNP
         'He is faking it, the one limping over there.'

7.181 *Na-be   bogen gabani-m-re.*
Dj   MA-YON two   3ua-hither-goNP
       'Those two over there are coming.'

It may also be used of referents lying beyond or outside some boundary, such as a window or the wall of a building:

7.182 *ngan-de nganabbarru*
Dj   VE-YON   buffalo
       'that buffalo outside (seen through a window)' (the use of the vegetable prefix here is unusual; one would expect the masculine)

7.183 *ngan-de ga-di   gun-dulk bogen*
Dj   VE-YON   3-standNP IV-tree   two
       'those two trees there (outside the house; speakers are inside)'

7.184 *Gu-mege   nga-re   nga-ni gu-be   ba-rrowe-ng.*
Dj   LOC-there 1-goNP   1-sitNP LOC-YON   3P-die-PP
       'I'll go and sit down there outside, where he died.'

7.185 *An-gudji-gen ngarri-yauh-makna-n bolkgime gaddum   gu-be.*
Dj   III-one-GEN 1a-again-try.look-NP now   upstream LOC-YON
       'We'll have one more try and look there upstream now.' (in another clearing on the bank, beyond the mangroves blocking our view)

For examples of *nabe/alde/ande* in combination with the ignorative *ngayed* 'where' to mean 'which', see §7.2.3.2.

7.3.1.6 nabehne *set*

Note that, as is regular after a glottal stop, the following nasal is sometimes retroflexed, giving *nabehrne*. The form is sometimes also contracted to *nehne*.

This set has two related senses:

(a)   '(This one) coming this way from there, (this one) appearing here from there'. On the basis of this sense I gloss the set 'YON.CENTRIP(etal)'. I take the second discourse-based sense (see below) to be a metaphorical extension of this from space into text.

7.186 *Yeah wanjh, imin come from, what that they ba-m-dolkga-ng   na-bernu*
Dj   well   3P-hither-set.off-PP MA-REM

       goyek, ba-rud-giwa-m   al-dehne   Arramurrunggunjdji
       east   3P-road-follow-PP FE-YON.CENTRIP   Arramurrunggunjdji
       'Yeah well, she came from, they, she set off, that one there, from the east, she followed the dreaming track this way from over there, that *Arramurrunggunjdji*.'

7.187 *Wanjh, na-behne   barri-m-golu-rr-inj   maih, mimgoi*
Dj   well   MA-YON.CENTRIP   3aP-hither-descend-RR-PP bird   red.eye.pigeon

       djohboi   gabarri-djare gabarri-bongu-n gukku.
       dear.thing 3a-want   3a-drink-NP   water
       'Well, those birds just came down here from up there, those dear little red-eyed pigeons. They want to drink the water.'

7.188   *Yiman   ga-yime goyek-be   ga-m-lobme   gun-mayorrk, gun-godjngol,*
Dj   like   3-doNP   east-ABL 3-hither-runNP IV-wind   IV-cloud

        ngan-djeuk   ga-m-lobme   na-behne   goyek-beh ...
        III-rain   3-hither-runNP MA-YON.CENTRIP   east-ABL
        'Like, there's a wind coming up fast from the east, and big clouds, and rain
        coming up fast here from in the east ...'

(b)   'Turning now to, to speak now of, to attend to now, as for'. As with *nawu* this
        introduces new participants which may later be tagged with *namege*, but unlike with
        nawu it is not used for re-mentions, nor is there any assumption that the referent will be
        familiar or easily identifiable.

7.189   *Na-behrne   mimih   ba-ngei-yo-i   Daddubbe and ba-ni   gu-warde*
Dj   MA-YON.CENTRIP mimih   3P-name-lie-PI   [name]   3P-sitP   LOC-rock

        galuk   na-warre-ni   na-mege   mimih.
        ater   MA-bad-PI   MA-that   mimih
        'This sort of *mimih* spirit now, it was called Daddubbe (lit. malfunctioning legs)
        and it lived in the rock country. Bye and bye it would do bad things, that *mimih*.'

7.190   *or   yiman goyek-goyek bedda gabarri-ngeibu-n   golomomo,*
Dj   like   REDUP-east   they   3a-call-NP   [name for freshwater crocodile]

        yiman   ga-yime, yiman gayime Rembarrnga, yiman gayime Dangbon, or
        like   3-doNP   [name]   [name]

        Ngalkbon, But   na-behne   ngad   now Na-djeihmi,   yiga
        [name]   MA-YON.CENTRIP   we   now MA-djeihmi   or

        Mayali,   ngarri-ngeibu-n   modjarrgi.
        Mayali   1a-call-NP   freshwater.crocodile
        'Or as the easterners call it, *golomomo*. Like for example the Rembarrnga, like the
        Dangbon or Ngalkbon. But turning now to us Nadjeihmi, or Mayali, we call it
        modjarrgi.'

7.191   *Gu-behne   ga-bolk-ngei-yo,   balanda   bedda*
Dj   LOC-YON.CENTRIP 3-place-name-lieNP European   they

        birri-bolk-ngeibu-n   Iron Billabong.
        3aP-place-call-NP
        'Turning now to what this place is named, they *balandas* call it Iron Billabong.'
        (begins the sixth in a series of short stories, many about particular places)

The locative form *gu-behni* or *gu-behne* (often lenited to *gu-wehne*) is the normal way of
expressing '(as for) here now', 'in this place now' where the location is established by
discourse rather than spatial deixis:

7.192   *Anabbarru   yerre   ba-m-bebme-ng.   Nomo bigibigi, before, bigibigi-yak-ni.*
Dj   buffalo   behind 3P-towards-appear-PP   pig   pig-PRIV-PI

        Njanjuk-njanjuk   na-mekke,   anabbarru lendo, djama   marrek gonhda
        what-what   MA-ANA.IMM   buffalo   horse   not   never   here

ba-di-wirrinj.   Lendo we callim horses. Or anabbarru, we callim buffalo,
3-stand-IRR

you know yourself already.   Gu-behni   marrek ba-di-wirrinj.
　　　　　　　　　　　　　　LOC-YON.CENTRIP   never   3P-stand-IRR

'Buffaloes came later (kangaroos etc. first). There were no pigs, in the old days
there were no pigs. All those things now, buffaloes, horses, they were never here.
They were never in this place here.'

7.193   *Bene-wok-gi-medda-nj*   *imin look back this way, imin talk   Gagudju,*
Dj   3uaP-speak-IVF-turn.around-PP

ø-wokda-nj,   that way ba-wokda-nj.   All right   bani-wam gu-werhne,
3P-talk-PP   3P-speak-PP   3uaP-went LOC-YON.CENTRIP

Ambuga:rla, Gagurl, Homburr   gun-garri-gen,   right up to crossing, you know
Umbugarla   Gagurl   Ngumbur   IV-west-GEN

that Anbangbang way, this side Ambugarla here, tharran Ngurrmbur, this country.

They turned around and spoke (i.e. turning to successive directions, and speaking in
the right language for that direction), they looked this way and spoke Gaagudju, that
way. She spoke. All right, the two of them went along to this area now, (and spoke)
Umbugarla, Gagurl, Ngumbur. The westerner's country, up to the crossing, you
know that way by Nourlangie Rock, it's Umbugarla country here, that's Ngurrmbur
here, this country.'

7.3.1.7 nabehdjam *set*

I don't have enough textual examples of this to explain this meaning fully. Isolated
examples are usually glossed 'that one over there':

7.194   *an-dehdjam*
Dj   'that one over there, like that, that's how it is'

7.195   *gu-behdjam*
Dj   'over there'

Violet Lawson says *nabehdjam* or *andehdjam* can also be used with the meaning 'see
what happened!' or 'you heard what happened'.

7.3.1.8 nabernu *set*

This is used for remote but not excessively distant referents, and in this sense forms part
of a three-term distance series *nahni/nabernu/nabe* roughly corresponding to older English
this/that/yon. Occasionally the middle syllable is lost and the second nasal deretroflexed (see
7.205 for an example of *gunu*).

7.196   *Al-dernu daluk   ga-re.*
Dj   FE-REM   woman   3-goNP
　　　'There she is, that woman, over there.'

7.197   *An-dernu   ga-yo.*
Dj   VE-REM   3-lieNP
          'There it is over there.'

7.198   *Al-ernu   ga-bok-yo.*
Dj   FE-REM   3-track-lieNP
          'That woman's tracks are over there.'

7.199   *Gu-bernu   gukku /   an-gabo.*
Dj   LOC-REM   water   III-creek
          'That water/creek.'

In discussing established referents it may have a combined spatial and discourse deictic sense, namely 'the one you wanted to know about, which is over there'. In 7.186 above, for example, *nabernu* modifies *Warramurrungundji*, following my request for information about this ancestral figure.

7.3.1.9 nabehrnu *set*

This set is infrequently used. Formally it adds a glottal stop to the previous set. As we have seen, the glottal stop is widely used to signal immediacy. In this case, the resultant form takes the combined discourse/spatial meaning just discussed, and brings the spatial component closer: 'the one you wanted to know about, which is here'.

7.200   *Nabehrnu!*
Dj   'Here it is — the one you were looking for!'

7.3.1.10 nani *set 'this in a series'*

Nani-form demonstratives are used to refer to locations in a series, for example successive places in a journey narrative:

7.201   *Galuk gu-Galangak ngarri-bidbu-ni Galangak na-ni   gakbi and*
Dnj   then LOC-[place] 1a-climb-PI   [place]   MA-PROX.SER north

          ngarri-wam   right up to ngarri-yimowo-ng ma-ni   garrkad,
          1a-goPP   1a-skirt-PP   VE-PROX.SER high.country

          Djidbidjidbi   this side arri-djal-wam,   Namarrgon,
          [place]   1a-just-goPP   Lightning.Dreaming

          an-guyin-geb-nguneng   gukku.
          3/1pl-almost-nose-eatPP water
          'Then at Galangak we'd climb up, Galangak there in the north. And we went up right up, we skirted around the high country on this side, at Djidbidjidbi, we just kept going, at Namarrgon the water almost drowned us.'

When referring to seriated entities without spatial location, *nani* is often simply translated as 'this', but still implies some sort of participation in a series. In the following example, the speaker is talking about what he is working on now (as opposed to at earlier phases of his life):

7.202 *But ngani-murrego,   ngaye nga-djagerr-hme nungga ngan-gogok-me,*
Dj   1ua-pair.of.brothers I   1/3-yB-callNP   he   3/1-eB-callNP

    na-ni   man-bu an-garre ngarduk still ngarr-djal-durrkmirri
    MA-PROX.SER VE-REL III-way my   1a-just-workNP

    bolkgime.
    now
    'We're brothers, I call him younger brother and he calls me older brother, we're
    just doing work on my own ways now.'

There are also forms in *nanih* etc. It is not completely clear whether this is distinct from
the *nani* set, though the proximal focus is more consistently clear than in the *nani* set.

7.203 *Djenj wardibu ngarri-makna-n, dja bu gayakki, ngarri-yauh-re,*
Dj   fish   if.poss 1a-try.look-NP   and if nothing 1a-again-goNP

    bolk-buyiga gunih   goyek, gaddum, ngarri-yauh-makna-n,
    place-other LOC:PROX.SER   east   upstream 1a/3-again-try.look-NP

    wardibu ngarri-ma-ng
    if.poss 1a/3-get-NP
    'We'll try and look for some fish, and if we get nothing we'll go on again. Another
    place, this next one upstream to the east, we'll try and look again and maybe get
    something.'

7.204 *Bolkgime nganih   nga-yolyolme-ø ginga.*
Dj   now   VE:PROX.SER   1-tell-NP   crocodile
    'This story I'm going to tell now is about a crocodile.' (recorded third in a series
    of consecutive short stories)

Nonetheless, sometimes in journey narratives *nanih*-series pronouns are used for distal
locations. It is not clear whether this results from relativised or empathetic deixis, or whether
the glottal stop is signalling immediacy ('that one now in a series'):

7.205 *Dja ganjdjiganjdji manih   manih   arri-re-i, gure Djidbidjidbi*
Dnj   and low.country   VE:PROX.SER   VE:PROX.SER   1a-go-PI   LOC [place]

    way ngarri-re.i. Wanjh, Warnbi ngarri-bal-bolk-ngeibu-ni, arri-yo-i
    1a-go-PI   then   [place] 1a-along-place-call-PI   1a-sleep-PI

    gunu.
    LOC:REM
    'And we'd go through the low country there now, we went the Djidbidjidbi way.
    Then, at that place along the way that we used to call Warnbi, we'd camp there.'

Sometimes demonstratives of this series are followed by *nawu*-series demonstratives:

7.206 *Nanih   na-wu   ngarduk, nanih   na-wu   nuye.*
Dj   MA:PROX.SER MA-REL my   MA:PROX.SER MA-REL   his
    'This is for me, this is for him.'

The plural, *bu*-suffixed form *nanibu* can be used in a situation where two groups are
being contrasted:

7.207	*Nanibu*	*barri-ganj-ngune-ng,*	*dja*	*nanibu*	*gayakki.*
Dj	MA:PROX.SER.PL	3a/3P-meat-eat-PP	CONJ	MA:PROX.SER.PL	nothing

'Some of them ate the meat, and some of them didn't.'

7.3.1.11 nahni *set*

This refers to entities or locations close to both speaker and hearer, which are being presented to the hearer's attention. Accompanying verbs often take the immediate aspect (7.210, 7.211).

7.208	*Na-ngale*	*nahni*	*arri-h-ni?*
Dj	MA-who	MA:IMM	1a-IMM-sit

'Who's this man here with us?'

7.209	*Al-ngale*	*ahli*	*ngarri-h-ni?*
Dj	FE-who	FE:IMM	1a-IMM-sit

'Who's this woman here with us?'

7.210	*Yi-yerrga*	*guhni!*
Dj	2-sitIMP	LOC:IMM

'Sit down here (close to me) (= *gonda*)!'

7.211	*Nahni*	*bogen*	*yerre.*
Dj	MA:IMM	two	behind

These two (teeth) behind' (said to a dentist whose hand is in the speaker's mouth).

This set is often used presentatively, when holding up or presenting something new to the hearer's attention:

7.212	*Njale*	*nahni?*	*An-dem.*
Dj	what	MA:IMM	III-lily

'What's this (plant)? (said as the speaker holds it up close to the hearer) White lily.'

7.213	*Nahni*	*gun-dulk*	*a-garrme.*
Dj	MA:IMM	IV-tree	1/3-haveNP

'I've got this tree here (close to you and me).' [VL]

7.214	*yi-yerrga*	*guhni!*
Dj	2sitIMP	LOC:IMM

'You sit down here!'

As the above examples illustrate, members of this set are most commonly used pronominally (7.208, 7.209, 7.212), but it may also be used adnominally (7.211, 7.213).

7.3.1.12 nakka *set*

This form refers back to an entity that was either just mentioned (7.215–7.217) or just present (7.219). It is often rendered as 'that one now' in Aboriginal English. Occasionally it is closed with a glottal stop (e.g. *makkah* in 7.217).

7.215	*Amekke*	*ngakngak*	*and*	*alekke*	*daluk*	*Burruwunggu,*
Dj	MA:ANA.IMM	grey.crowned.babbler		FE:ANA.IMM	woman	[name]

well	*im*	*garrim*	*gunak,*	*gunak*	*gabarri-garrme* *ngalkka.*
	he	has	fire	fire	3a/3-haveNP FE:IMM.PREV

'That grey-crowned babbler and the woman Burruwunggu, well that one now has fire.'

7.216 *Namiminja marrek ga-wernh-djang-di*
Dnj   [place]   NEG   3-proper-dreaming.place-beNP

    but   nakka   ø-djal-wam   ø-gurrme-rr-inj, Na-marrgon.
        MA:IMM.PREV 3P-just-goPP 3P-put-RR-PP   I-lightning

'Namiminja's not really a proper dreaming place. But it's just that that one 'now' (Namiminja) went and put himself there, at Namarrgon (lightning dreaming).'

7.217 *An-ngamed   ngarri-ga-ni   an-wung   an-djaddad,*
Dnj   VE-what   1a-carry-PI   III-flame.cone III-flame.carrier

    An-djaddad   ngarri-ga-ni gamak-ni,
    III-flame.carrier 1a-carry-PI   good-P

    an-barlngu,   makkah   ba-bed-warre-ni, ba-rrulmuk-ni wanjhgih.
    III-firestick.type VE:IMM.PREV 3P-now-bad-PI   3P-heavy-PI   just.like

'We were carrying whatsits — flame cones, flame carriers. We carried that *an-djaddad* flame carrier, it was good. As for the *an-barlngu* type of firestick, that one now was no good, like it got heavy.'

7.218 *Ngaye na-bale   nga-ngu-n?   Nakka   yi-ngu,   galuk nga-ngu-n.*
Dnj   I   MA-which   1-eat-NP   MA:IMM.PREV 2-eatIMP   later 1/3-eat-NP
    'Which will I eat?'   'You eat that one, I'll eat (something) later.'

7.219 *Na-ngale nakka,   ba-h-di   gonhda?*
Dj   MA-who   MA:IMM.PREV 3P-IMM-standP here
    'Who was that person (who was here just now)?'

Because it can refer back to an entity mentioned immediately before, it is often used in ascriptive sentences in which the topic (possibly modified by its own demonstrative) is first mentioned with a 'continuation rise', and then followed by a comment which begins with the *nakka*-series demonstrative. Here the break after the continuation rise is indicated with a comma.

7.220 *Mayh   namekke,   nakka   bininj-ni.*
Dnj   bird   MA:ANA.IMM   MA:IMM.PREV human-PI
    'Those birds, they were human then.'

For the same reasons, it is often used in definitions:

7.221 *Gun-djurlu, nakka   yellow.*
Dj   IV-yellow   MA:ANA.IMM
    '*Gun-djurlu* means yellow.'

7.3.2 Demonstrative systems in other dialects

The following discussion merely highlights the most salient differences, pending a full study of the demonstrative systems of these dialects. The difficulty of investigating the

semantics and pragmatics of demonstrative systems is compounded, in dialectological study, by the existence of stereotypes about demonstratives being associated with particular dialects, so that the first line of explanation one is given for many forms is 'that's Kunwinjku; we don't say that', 'that's Kunkerlk' etc., even for forms that are in fact attested in the dialect of the speaker offering the explanation.

7.3.2.1 Kunwinjku, Kuninjku and Kune

I begin by discussing differences in the use of gender and pronominal prefixes, then pass to the different root sets.

GENDER AND PRONOMINAL PREFIXES As discussed in §5.5, there are significant differences across dialects in the number of genders employed in agreement, and this is particularly obvious with demonstratives.

Where Gun-djeihmi has three genders plus a locative form, Kunwinjku has four genders plus a locative form (adding neuter *kun-*). Thus we find *kunekke* or *kunmekbe* 'that aforementioned' (neuter gender) in the *namekke/namekbe* series, *kunukka* 'that (being indicated)' in the *nakka* series, *kuhni* 'that (neuter) thing over there; over there, that way, that direction' in the *nani* series (though with formal neutralisation between neuter and locative forms, both *kuhni*), and *kunu* 'that (which I now mention)' in the *nawu* series. An example is 7.222 (see §5.5 for further examples).

7.222   *Wanjh   bolkkime   birri-h-di   med   kun-bolk   danjbik   birri-h-di*
W   then   now   3aP-IMM-stand wait IV-country   three   3uaP-IMM-standP

  kun-mekbe   kun-wernh   koyek, med   yerrih birri-h-wam.
  NEU-ANA.ABL   NEU-many   east   wait   after   3aP-IMM-goPP
  'So that now they settled here from several (clan) countries [NEU], from those many (countries) to the east, they haven't gone yet.' [KH 150]

Nonetheless, for the reasons discussed in §5.5, neuter agreement is losing ground to extended vegetable and masculine agreement. Whereas in Gun-djeihmi this has led to the loss of neuter demonstrative forms, in Kunwinjku it has led to their semantic specialisation. This is particularly true with forms suffixed for case: the Etheringtons' grammar, in its list of three demonstratives used for 'managing discussion' (1994:101), includes *kunmekbekenh kunu* 'that's the reason why ...', *kuninjkunu* 'thus, in the light of that', and *kundjalmekbe rerrih* 'immediately'.

The weakening of gender agreement in Kuninjku and its disappearance in Kune, accompanied by the increasing generalisation of the masculine forms to all contexts (§5.5), means that many of the non-masculine prefixed forms are not found in these dialects. Thus in Kune Narayek one says *nane daluk* 'this woman', *nane manme* 'this fruit' and *nane kanjno* 'this meat' alongside *nane bininj* 'this man'. A Kune Dulerayek example of a *na-* prefixed demonstrative with what in other dialects would be a vegetable-gender noun (didgeridoo) is:

7.223   *Mako-dorreng   ø-buhme-ng   nakka   man-nguk nuye.*
E:D   didgeridoo-COM   3/3lP-blow-PP MA:IMM.PREV III-guts   his
            'The didgeridoo he played was made out of his (*balang*'s) guts.'

In Kuninjku some of the *kun-* forms survive through semantic specialisation (e.g. *kuneke* and *kunukka,* which both mean 'in that manner, at that time').

A second formal difference from Gun-djeihmi in terms of prefixation to the demonstrative roots is the possibility of prefixing non-minimal pronominal prefixes to some demonstrative roots in Kunwinjku, Kuninjku and Kuninjku, for example W *bene-mekbe* 'those two already mentioned' and *birri-mekbe* 'those (more than two) already mentioned', and K *bene-mekke* in the following example:

7.224   *Bedda   bene-wam   daluk   boken   bene-mekke   bene-wam   wanjh*
I   they   3uaP-goPP   woman   two   3ua-DEM   3uaP-goPP   then

     bonj   djenj   bene-h-yawam.
     finish   fish   3uaP-IMM-look.forPP
     'There were once two women who went out looking for fish.' [GID]

DIFFERENCES IN PRONOMINAL ROOT SETS   Below we mention a number of differences from Gun-djeihmi, both in terms of formally distinct sets and of different uses of formally identical sets. The discussion is far from exhaustive since much investigation remains to be done on this topic, and I simply gloss the forms as DEM(onstrative) at this stage pending further research, except for the 'relative' *nawu* series, which appears to have equivalent functions across all dialects.

(a)   Kunwinjku has a root series in *-u,* with gender-prefixed forms *nanu, ngalu, manu* and *kunu,* the last form being homophonous with the *nawu-*series neuter form. This set appears to function as distal demonstratives:

7.225   *Na-nu   yok   yahwu-yahwurd.*
W   MA-DEM   bandicoot   REDUP-small
     'Those bandicoots are small.' [KH 17]

7.226   *Kaluk   na-mekbe   na-marnde   bi-djawa-m   bininj   bi-marne-yime-ng:*
W   then   MA-DEM   I-devil   3/3hP-ask-PP   man   3/3hP-BEN-say-PP

     "Na-wu   ngaben-bekka-n   wurdwurd   birri-djekm-i,   kunubewu
     MA-REL   1/3pl-hear-NP   children   3aP-laugh-PP   maybe

     bininj   gabirri-ni   gu-red."   Kaluk   na-mekbe   bininj   ø-yime-ng:
     person   3a-sitNP   LOC-camp   then   MA-DEM   person   3P-say-PP

     "Na-nu   man-dabonkelk (?)   ka-wokdi."
     MA-DEM   III-boughs.of.trees(.creaking?)   3-speakNP
     'Then the devil questioned the man and said: "I hear children, they were laughing, maybe there are some people in camp". Then the man said, "That noise is only the boughs of the trees creaking".' [Oates 1964:93–95]

The vegetable form is frequently combined with *mane,* possibly a raised-vowel version of *mani,* to mean 'this':

7.227   *Mane-manu   ngarrewoneng   kubunj.*
W   VE:DEM-VE:DEM   our   canoe
     'This is our canoe.' [KH 19].

The W *nu* series may be a reduced form of the Dj *nabernu* and *nabehrnu* series (§7.3.1.8, §7.3.1.9). Gun-dedjnjenghmi speakers, who generally mix Kunwinjku and Gun-djeihmi features in their dialect, also use this form:

7.228 *Na-maddalk ngaleng ngarre gun-red   ngal-godjok   ngal-u   ga-h-ni*
Dnj   I-[clan]   she   her   IV-country   II-[skin]   FE-REL   3-IMM-sitNP

       njamed   Gorlonjdjorr. Wanjh na-nu.   Gaboyarrmeng-gen ngarri-yime
       whatsit   Gorlonjdjorr right   MA-DEM   [place]   1a-callNP

       gu-mege   arri-yerrga-n.
       LOC-there 1a-sit-NP
       'She of the Namaddalk clan, it's her country, Ngal-godjok's, who lives at whatsit, at Gorlonjdjorr. All right, there. There at what we call Gaboyarrmang we'd sit down.'

The form *nabenu* is used in Kune Narayek, with the meaning 'this here', as in *bininj nabenu* 'this man here' or *nabenu kanjno* 'this meat here'; formally this matches Dj *nabernu* (§7.3.1.8), but semantically is a better match to Dj *naberhrnu* 'the one you wanted to know about, which is here' (§7.3.1.9). In Kune Dulerayek the form is *nabeno*:

7.229 *Walk   na-beno, na-kudji kaluk Balang   bi-ka-ng.*
E:D   circumcision.candidate MA-DEM MA-one   then [subsection] 3/3hP-take-PP
       (first line of story:) 'This circumcision candidate, of Balang subsection, was a candidate for his impending circumcision ceremony.'

(b) The -*mekbe* series has a less specialised use in in Kunwinjku, where there is no reason to regard it as containing the (etymologically original) ablative sense that it exhibits in Gun-djeihmi and Gun-dedjnjenghmi. Etherington and Etherington (1994:101) list *ngalekke* as a variation of *ngalmekbe*, and *kunekke* as a variant of *kunmekbe*. And Kunwinjku texts contain numerous examples of this series being used where no ablative element is present and a *namekke* series demonstrative from Gun-djeihmi would be used, for example:

7.230 *Kaluk darnkih bene-h-bebm-i   dja ben-bekka-ng wurdurd*
W   then   near   3/3duP-IMM-appear-PP and 3/3plP-hear-PP children

       birri-h-dirri,   kaluk na-mekbe na-narnde bi-djawa-m bininj
       3aP-IMM-play   then   MA-DEM   I-devil   3/3P-ask-PP man

       bi-marne-yime-ng.
       3/3P-IMPL-say-PP
       'When they were close to the camp they heard children playing. Then that devil questioned the man and said … ' [Oates 1964:91–92]

(c) There appears to be considerable variation across dialects in the conditions for use of the *nahni* and *nanih* series, and a tendency for the presence and/or position to be identified by speakers as characteristic of dialect rather than referential differences.

     Garde's Kuninjku dictionary lists *nanih* with the meaning 'this one, that one' and notes it is equivalent to Kunwinjku *nahni*. As in Gun-djeihmi, however, it is often used presentatively (see 13.158 for an example). The *nani* and *nanih* series are used in Kuninjku for mid-range spatial location; it is not clear at this stage whether the Kune

form *naneh* is part of a distinct series or merely a phonological variant of *nanih*, which also occurs, in similar contexts (see Text 8.1).

Etherington and Etherington (1994:101), for the Kunwinjku series *nahni/ngahli/mahni*, give the gloss 'that' and for the corresponding locative *kuhni*, the gloss 'over there, that way, that thing over there, that direction'. Opposed to this they list an 'intensive form' *nanihnjanu* 'this right here'. This might suggest that in Kunwinjku the *nahni* set no longer has the 'right here with you and me' meaning, which has been taken over by a newly developed emphatic form *nanihnjanu*.

However, there are many textual examples in the Kunwinjku Spirit corpus in which the *nahni/ngahli/mahni* series is used adnominally to present new story characters, typically in a story where the character is introduced by gesturing to the appropriate figure in a bark painting. Examples are *ngalyod djareni bibuyinj ngahli daluk* 'Ngalyod (the Rainbow Snake) wanted to kill this woman' [KS 26], *mahni manu Djang ngardduk kunkare duninj* 'this is one of my best Dreaming drawings — old-time way' [also KS 26], *ngahli ngalyaw ngalbadjan bihberrebbom* 'this young woman was promised in marriage by her mother'. There are also many examples of *nahni* being used to present new paintings or stories, in which case it is used pronominally: *nahni Wurrakak kahkarrme walabi* 'this (painting) is Wurrakak holding a fishing net' [KS 22]; *nahni ngayolyolme ...* 'this (story) I'm going to tell about ...' [KS 32]. Such examples show that the presentative proximate sense is not confined to Gun-djeihmi and is also available for this series in Kunwinjku.

(d) The semantic range of the *nakka(h)* series again varies across dialects, though it centres on the '(in attention) immediately before' meaning. It is almost always used pronominally rather than adnominally. In Kunwinjku, Kuninjku and Kune and Gun-djeihmi it is used for immediate prior mentions (7.231), to refer to entities that have just been present (13.51) and in definitions and exemplifications (7.232):

7.231 *But really ngarri-ngeybu-n boddowk   ngad,*
I   1a/3-call-NP   spangled.grunter we

    some burrkyak   makkah kabirri-ngeybun bokorn.
    [Kunwinjku] VE:DEM 3a-callNP   spangled.grunter
    'But we (Kuninjku) really call the spangled grunter fish *boddowk*, though the *Burrkyak* (Oenpelli dialect) (for it), (in) that now, they call it *bokorn*.'

7.232 *Djidjngak nakka   na-yahwurd bininj.*
W   [name]   MA:DEM   MA-small   man
    (at beginning of account of who Djidjngak is:) 'Djidjngak, he's a little man.' [KS 88]

However, in these eastern dialects it has both a broader semantic range[13] and more combinatorial possibilities than are found in Gun-djeihmi and Gun-dedjnjenghmi. Etherington and Etherington (1994:101) say this series is used in Kunwinjku 'when indicating with lips or pointing or with other immediate reference'. Thus it can be used in Kunwinjku to refer to distal present objects (7.233), and, unlike in Gun-djeihmi and Gun-dedjnjenghmi, can combine with pluralising *bu* (7.234):

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13   So much so that Capell (1940:270) used it to illustrate the 'definite article' in Kunwinjku.

7.233   *Ngudda   ngune-boken   ngune-na   nakka   kornobbolo?*
W   you   2ua-two   2ua-seeIMP   MA:DEM   wallaby
         'You two look at that wallaby!'

7.234   *Njale   nak(k)abu?*
W   what   MA:DEMpl
         'What are those? [KH 20]'[14]

And in Kuninjku and Kune it can be used when gesturing to present objects:

7.235   *Kaddum   nakka   dimirndimirn   yiman   ka-yime   komrdawh,   djang*
I   above   MA:DEM   water.skater   like   3-doNP   [tortoise.sp.]   dreaming

         nakka.
         MA:DEM
         'At the top (of the painting here), those are water skaters, somewhat like long-neck
         tortoises, they are dreaming beings.'

A commonly used formal variant in Kuninjku and Kune, is *nakkan* (7.236), which can
mean 'that one' (pointed to or referred to):

7.236   *Ka-rrowe-n   nakkan.*
I   3-die-NP   MA:DEM
         'That (guy) is really laughing hard.'

(e)   Kuninjku has the special forms *nanin* and *manin* (presumably built on the *nani* series
       — so far no form *ngalin* has been recorded), meaning 'this (close at hand)':

7.237   *Manin   karri-barlungmen!*
I   VE:DEM   12a-turn.off-IMP
         'We turn off here!' (Vegetable form presumably agreeing with 'road') [GID]

7.238   *Nanin   bid-no   yi-djuyme.*
I   MA:DEM   hand-3POSSD   2-squeezeNP
         'Push this button here.' [GID]

(f)   There is a special contrastive form *nanemah* 'this other one', at least in Kune Narayek
       (Text 8.3). Another suffixation possibility for the *nane* root in Kune Narayek is
       nanebay 'this here', clearly influenced by its Dalabon equivalent *nvndabay*.

(g)   Kune Narayek has a form *nane* 'this here', contrasting with *nanenj* 'this right here'.
       Strangely enough I have yet to hear the expected locative counterpart *kune*, though
       such a form is likely to have motivated the language name *kune*.

(h)   A form *nake*, occasionally heard in Kune, may be a reduced variant of *nameke*.

(i)   In Kune the masculine form of the *nawu* series is *nabu* rather than *nawu*, and in
       Kuninjku the feminine form is *ngalbu*, as in Kunwinjku (§7.3.1.2).

(j)   Kunwinjku has a form *nanihnjanu*, which Etherington and Etherington (1994:101)
       label an 'intensive form'. The example they give is *nanihnjanu bininj* 'this man right
       here'.

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14   This example is transcribed by Hale as *naka*, but his early transcriptions do not indicate length reliably.

7.3.2.2 Manyallaluk Mayali

On the basis of the data collected far, this appears to resemble the Gun-djeihmi system. Text 3 contains a number of examples of demonstrative use (see lines 14, 23 and 41). There are, however, two major differences.

Firstly, for some demonstrative series the vegetable form takes the *ngan-* prefix, while for others it takes the *ma(n)-* prefix, even though the corresponding noun-class prefix is always *ngan-*, never *man-*. Compare *nganekke* and *nganbu* in 7.239 with *mahni* in 7.240:

7.239   *Bani-borletge-rr-inj,*   *bi-bom,*   *majawarrh-majawarr barri-dulubom*
MM   3uaP-turn.round-RR-PP   3/3hP-hitPP   REDUP-throwing.stick   3aP-spearPP

        ngan-ekge   *ngan-bu   ga-no,*   *ngarrbek.*
        VE-ANA.IMM   VE-REL   spike-3POSSD   echidna
        'Then they exchanged roles, she attacked her, throwing throwing-sticks at her, with those spikes, (that now appear on) the echidna.'

7.240   *Go-no*   *ba-yakm-inj, bamu-no   ma-hni   ga-yime.*
MM   flower-3POSSD   3P-finish-PP   bud-3POSSD   VE:IMM   3-doNP
        'When its flowers are finished, its fruit-buds come out like this.'

It is possible that the mixture of *ma(n)-* and *ngan-* vegetable prefixes in the demonstrative series reflect the origins of Manyallaluk Mayali as a koiné mixing dialects from the west and east ends of the chain. However, it is worth noting that Gun-dedjnjenghmi also has both *ngan-* and *man*-based demonstrative forms (see §7.3.1), so that in this respect Manyallaluk Mayali may merely be continuing the Gun-dedjnjenghmi system. More detailed information on both demonstrative systems is needed before these competing hypotheses can be evaluated.

The other difference from Gun-djeihmi is the presence of a *nu* series, as in Kunwinjku and (again) Gun-dedjnjenghmi. An example is *ngalu galidjan* for 'that (female) Galidjan', and *nanu yaw* 'those baby (crocodiles)' in Text 3.41.

A further minor difference is that the Manyallaluk Mayali feminine relative-demonstrative form is *ngalbu*, as in Kune, rather than the form *(ng)alu* found in Gun-djeihmi.

7.3.3 Locational demonstratives

Most of the demonstrative series we have been examining have a locative-prefixed form that can be translated variously as 'there' or 'here' (with further semantic specifications) according to the series. In addition to such forms, there is an opposed pair of demonstratives of purely local function, that is virtually identical in all dialects, though there is considerable variation, not obviously linked to meaning, in the presence and position of the glottal stop. Sources on Kunwinjku do not mention a cognate 'there' form, though *kure*, the locational preposition, is widely used with the meaning 'there at'. In the other dialects the (optional) final glottal stop, and the position of stress on the second syllable, distinguish 'there' from the locational preposition; it is likely both ultimately derive from the same source, *ku-red* [LOC-place].

Table 7.6: Locative demonstratives

Dialect	'here'	'there'
Dj	*gonhda(h)*	*guré(h)*
W	*konhda*	?
I	*kon(h)da(h)*	*kuré(h)*
E	*kondanj*	*kuré(h)*

In many cases they are interchangeable with spatially equivalent demonstratives with the locative prefix, particularly *gumekke* (Dj) / *kumekke* (W, I). However, there is a subtle difference: the latter are more appropriate either in referring to a location that has already been established through naming (7.241), or where it is indefinite and therefore could not be indicated by pointing (7.242).

7.241   *Karri-re Kunburray   ø-bolk-bukk-an   ka-djarrhbumme ku-mekke.*
I   12a-goNP [place]   1/2-place-show-NP   3-waterfallNP   LOC-DEM
        'We'll go to *Kunburray* and I'll show you the waterfall there.'

7.242   *"Ladjkurrungu   la   yi-re,   konda   ngal-yabokwarre ngane-yo."*
I   Mardayin.initiate CONJ   2-goNP   here   II-your.sister   1ua-lieNP

        "Oh,   ku-mekke   nuk   ku-bolk-buyika   nga-h-yo."
              LOC-DEM   DUBIT   LOC-place-other   1-IMM-lieNP
        'Ladjkurrungu you go, I'm sleeping here with your sister.'
        'Oh, I'll go and sleep somewhere else then.'

This does not mean that the 'here'/'there' forms are incompatible with names of places, provided that prior naming is not the only way of identifying the place. In the following example 'there' is identified simultaneously by contrast, by gesture and by naming:

7.243   *Burrungandi   ku-berrk   ka-yo.   Kondah   larrk.*
I   stinking.turtle LOC-open   3-lieNP here   nothing

        Kure   Beswick   ka-rri   ka-rrudje-rr-en.
        there [place]   3-standNP   3-bury-RR-NP
        'The 'stinking' turtle lives out in the open. They're not found here (central
        Arnhem Land). Down there near Beswick they bury themselves in the ground.'

The semantics of these two forms are much like English 'here' and 'there', and are compatible with location (7.244, 7.245, 7.246) or motion towards (7.247, 7.248):

7.244   *Minj   mak   ngan-garrme-ninj,   so Tom Cole   ngan-ga-ng nga-wurdurd-ni*
Dj   NEG   at.all 3/1-have-IRR   3/1-carry-PP 1-child-P

        an-gurrme-ng   gonhdah   JimJim.
        3/1-put-PP   here   [place]
        'He couldn't take me on (as a shooter, since he was leaving for Sydney), so Tom
        Cole brought young me and put me down here at Jim Jim.'

7.245   *Dabbarrabbolk   kun-kare   birri-bid-kuykme-rr-inj   konda   kure.*
I   old.people   IV-before 3aP-hand-spray.ochre-RR-PP here   LOC

kun-wardde
IV-rock
'A long time ago, the old people sprayed (ochre) over their fingers here on this rock.'

7.246   *Ngarri-durnde-ng JimJim,*   *Duruk Ga-bard-bok-yo*   *ga-bolk-ngei-yo*
Dj   1a-return-NP   [place]   dog   3-knee-print-lieNP   3-place-name-lieNP

      JimJim bolkgime yiman guré,   *balanda birri-bolk-ngeibo-m*   Cooinda Hotel
      [place]   now   like   there   balanda   3aP-place-call-PP
      'We'll go back to Jim Jim, Duruk Gabardbokyo (Place where the dog's copulatory
      knee-prints are) is what Jim Jim is called. Now, like there, *balandas* have called
      that place Cooinda Hotel.'

7.247   *Birri-kerrh-kerrnge*   *kabirri-djare konda*   *kabirri-ngime*   *kamak.*
I   3a-REDUP-new   3a-wantNP   here   3a-enterNP   good
      'These new people, they want to come here, it's OK for them to enter.'

7.248   *Na-walawalak ø-djangka-ng*   *kure.*
E:D   I-B   3P-hunt-PP   there
      'The younger brother went off (to) there hunting.'

The ablative suffix *-be(h)* is added to get the meaning '(away) from here/there':

7.249   *Kure-beh*   *yi-m-kolkme-n*   *konda-beh*   *nga-m-kolkme*
I   there-ABL   2-hither-chop-IMP   here-ABL   1-hither-chopNP
      'You chop from that side and I'll chop from this side.' (words to a
      Wurruwurrumi style song)

7.250   *Yiga money,*   *ga-yime-n*   *an-me,*   *gu-mege*   *ngarr-... gorrogo ngandi-ga-ni,*
Dj   or   3-do-NP   III-food   LOC-there   1a-   before   3a/1-take-PI

      or   *ngarri-re-i Gunbarlanja, Oenpelli.*   *Yiman*   *gonhdah-be bininj*
      yiga   1a-go-PI   [place]   like   here-from   people

      gorrogo   *barri-dowe-ni*   *bakki.*
      before   3aP-die-PI   tobacco
      'Or money, or food. There, in the olden days, they used to carry me, Or we'd go to
      Gunbarlanja, Oenpelli. Like, people from here used to be starving for tobacco.'

The phrase *kurebeh, kondabeh* (to cite it in its Kuninjku form; other dialects have parallel forms) means 'all over the place':

7.251   *Kure-beh,*   *konda-beh*   *bene-h-bu-rr-inj.*
I   there-ABL   here-ABL   3uaP-IMM-hit-RR-PP
      'They both fought and fought all over the place.'

One difference from English 'here' is that *gonhdah* is easily relativised (at least in Gun-djeihmi and Gun-dedjnjenghmi) to the deictic centre of the clause it occurs in, in which case it often translates as English 'there'.

7.252   *Ba-rrolga-ng*   *bu*   *Yirrarra ba-bo-rrulubom.*   *Ba-bo-rrulubom*
Dnj   3P-jump.up-PP   REL   [place]   3P-liquid-shootPP   3P-liquid-shootPP

> gonhdah ba-gard-gurrme-ng,
> here   3P-fin-put-PP
> 'He jumped up there at Yirrarra where he shot straight through into the water.
> When he shot into the water there he left his fin.'

7.253 *Gu-mege-be   arri-yonginj Anmulari, wanjh bi-berl-djobge-ng Djomborno*
Dnj   LOC-there-ABL 1a-sleepPP [place]   then   3/3hP-arm-cut-PP [name]

bottle gonhda, bi-berl-djobge-ng gu-mege-beh   ngarri-dolkga-ng.
       here   3/3P-arm-cut-PP   LOC-there-ABL 1a-get.up-PP
'After coming from there we camped at Anmulari, then Djomborno (Peter
Djenjdjomerr) cut his arm on a bottle there, he cut his arm and from there we
set off.'

Two derivatives of these forms are at present attested, in Gun-dedjnjenghmi only, though
further investigation may show them to be more widespread. The special form *gonhdagih*
means 'over here', and a form suffixed with *nu*, probably reduced from the dubitative clitic
nuk, means 'there somewhere'.

7.254 *ø-wa-m   ba-gurrme-rr-inj gurénu.*   *Finished then. Gamak?*
Dnj   3P-go-PP   3P-put-RR-PP   there.somewhere   OK
       'She went and put herself in the landscape somewhere, and that was it. OK?'

Other forms attested in only one dialect are W *kuhri*, which means 'that way' when
gesturing (Etherington & Etherington 1994:101), Dj *niyih*, which means 'around here, near
here, in this vicinity' (7.255, 7.256), and Dj *ngahdjarre*, which means 'this way, this side'
(7.257).

7.255 *Galuk gu-mege ba-bolk-na-ng   ba-yime-ng   "Niyih nga-rrarnh-wodjme",*
Dj   later LOC-that 3P-place-see-PP 3P-say-PP   here   1-near-sinkNP

wanjh gu-mege   maddjurn ba-wodjme-ng.
then   LOC-then   python   3P-sink-PP
'When she saw that place she said: "Near here is the place where I can sink down
(under the water)". So that's where black-headed python sank down.'

7.256 *Wanjh na-bene   na   bininj niyih barri-yo-i Nadjeihmi,*
Dj   well   MA-YON.CENTRIP   now   person here 3aP-sleep-PI

or Gagudju

'Well, the people who used to live around here, the Nadjeihmi, or the Gaagudju'

7.257 *Ngarri-m-yauh-re   ngahdjarre, gare   djal ngarri-yauh-re*
       1a-hither-again-goNP this.way   maybe   just 1a-again-goNP

gu-bolk-buyiga.
LOC-place-another
'We'll come here this way again, maybe we'll just go to another place again.'

7.3.4 Gesture-accompanying demonstrative

In all dialects the expression *yiman bonj* 'like this' is used to accompany an illustrative
gesture. See 6.106 for an example.

8 *The verb: overview*

The verb is morphologically the most complex word class in Bininj Gun-wok. Since it is a polysynthetic language, a verb frequently expresses what would take a whole sentence in English, for example 'I cooked the wrong meat for the two of them again'. Because of its internal complexity, much of what is accomplished by the syntax in other languages is carried out within the verb — expression of arguments, adverbials and adverbial quantification, and reflexivisation. At the same time, there are many complexities in the coding of tense, aspect and mood on the verb.

Our discussion of verbal morphology will therefore run over several chapters. In this chapter we summarise the overall architecture of the verb, the structure of the basic lexical unit (the stem), and some problems of delimiting verbal structure from predicate structure more generally. The remaining four chapters of this bracket are organised around functions (which do not correspond to adjacent groupings of verbal slots). Chapter 9 examines the encoding of tense, aspect and mood, including the complex conjugation system and the many semantic types of reduplication. In Chapter 10 we turn to the representation of arguments on the verb through pronominal prefixation and noun incorporation, as well as the diathesis-changing applicative prefixes and reflexive/ reciprocal suffix. In Chapter 11 we look at the wide range of adverbial-type information that can be represented on the verb, while in Chapter 12 we look at constructions which merge more than one verb stem in the same verbal word.

8.1 Structure of the verbal word

The verbal word has a template rather than a recursive structure: there is a finite number of slots (with at most one level of embedding, consisting of the incorporated verb slot), and the order of slots does not directly reflect any sort of iconic ordering principles (in contrast to, say, Turkish or Eskimo). In certain cases where two valency-changing affixes straddle the verb root, both orders of semantic composition are possible, giving different interpretations: thus BEN-V-RR can be composed as [[BEN-V]-RR], with the interpretation 'V for each other', or as [BEN-[V-RR]] 'V oneself for BEN' (§10.3.4.8).

The full set of verbal slots is shown in Figure 8.1; plus and minus signs before the slot number give the direction with respect to the verb stem. Slots marked * may be filled with more than one exponent from the same set of morphemes. Note that the subject and object prefixes (-11, -10), the stem (0 and E-0), and the incorporated body part slots (-3, E-4) may

themselves be morphologically complex. The morphological analysis of the subject and object prefixes is discussed in §10.2.1–§10.2.2, and the way in which morphologically complex body part terms result from compounding to form specific body part terms (e.g. lower.arm-bone) is discussed in §6.4.2. The stem itself may be complex, and historically may include a compounded nominal, e.g. *wid+na-* 'hate' [different+see] or *bo-wo-* 'cast (fish poison) into water' [water-give]; complex stems are discussed in §8.4.

A further level of complexity not shown here comes from various reduplicative patterns that take the verbal stem plus incorporated noun as input, e.g. *ngarribolknahbolknan* 'we look after the country', in which the IN+stem portion *bolkna* has been left reduplicated and a glottal stop inserted. These processes are discussed in §9.4.

-12	-11	-10	(-9)	(-8)	(-7)*	(-6)	(-5)*	(-4)	(-3)	(-2)	(-1)	V.Emb				0	(+1)	+2	+3
												(E-4)	(E-1)	(E-0)	(E+3)				
Tense	Subject	Object	Directional	Aspect	Miscellaneous 1	Benefactive	Miscellaneous 2	Gener. inc. nom	Bod.par.inc.nom	Numerospatial	Comitative	Gener. Inc. nominl	Comitative	Stem [open]	Incorp.v.form	Stem [open]	RR	TAM	CASE

Figure 8.1: Verbal affix positions

Optional slots are shown in brackets. Potentially fused segments are shaded together. The order of subject and object can be reversed according to person and animacy values. V.Emb represents the option of embedding one verb in another.

8.1.1 *Internal structure of the verbal word template*

Despite its templatic structure, the verb is not simply a linear string of morphemes. It has significant internal structure, shown in a number of ways.

Firstly, at the beginning and end of the structure are two 'fusion zones', in which portmanteau morphemes occur; these are:

(a)   the 'pronominal zone' of the first three slots, and

(b)   the 'conjugation zone' comprising the last syllable of the stem (the 'theme') and the following TAM and reflexive/reciprocal suffixes.[1]

These two fusion zones are the only areas where irregular paradigms must be learned. Everywhere else the morphemes are simply strung together, with slight modifications according to the morphophonemic rules given in Chapter 3.

Secondly, the distribution of obligatory as opposed to optional slots is not random: the obligatory slots are the beginning (the pronominal zone), the stem, plus the end (the TAM slot). The fusion zones are thus coextensive with the obligatory part of the verbal word.

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[1]   More accurately, the sometimes suppletive form of the TAM suffixes is determined by either the theme or the reflexive/reciprocal suffix, whichever immediately precedes it, and there is some more minor variation in the form of the thematic according to the TAM suffix.

Thirdly, different phonotactic possibilities exist at different points in the word. Basically, the lexical roots — incorporated nominals of various types, most of the miscellaneous prefixes (predominantly adverbial in nature), and all but the final syllable of the verb root — enjoy the full range of phonotactic possibilities, and may comprise maximally heavy syllables. The valence-changing prefixes all comprise open syllables. Syllables in the pronominal zone will be either open or have a coda limited to a single sonant. The TAM markers, which are always the final syllables in the verb will be either open or end in a nasal, which cannot be retroflex nasal. All morphemes cleave along syllable boundaries except for the immediate and 'towards' prefixes (neither of which occurs in Kune) and the TAM suffixes. These phonotactic patterns combine to produce a clear asymmetry to the rhythmic structure of the verbal word, which becomes more evident as the word is expanded.

Fourthly, a limited amount of embedding is possible within this structure, as indicated by the V_{emb} slot in Figure 8.1. Immediately before a small set of simple stems, such as *re* 'go', *yerrga* 'sit down', *yo* 'lie', the transitive thematic *-ge* and *we* 'throw', there can be a gerundivised verb, possibly with its own incorporated nominal. In 8.1, for example, from a Gun-djeihmi text, the verb stem *-yawa-* 'look for' has incorporated the noun *bo-* 'liquid, water' to form *boyawa-* 'look for water', uses the 'incorporating verb form' *boyawanihmi-* 'looking for water', and this is then all incorporated into the verb *-re* 'go'. The embedded verb is here shown within square brackets.

8.1   *Ba-[bo-yawa-nihmi-]re-i.*
Dj   3P-water-search.for-IVF-go-PI
         'He went along searching for water.'

A comparable example from the Kunwinjku dialect is:

8.2   *Birri-[kanj-yi-lobm-i-]durnd-i.*
W   3aP-meat-COM-run-IVF-return-PP
         'They ran back with the meat.'

Note that the gerundivising suffix is only found with such incorporated verbs, and is given the slot number E-3 to make clear that it does not correspond to any slot on normal verbs (though arguably it is in complementary distribution to, and therefore the embedded equivalent of, the TAM slot +2).

At least in Gun-djeihmi, speakers accept as grammatical sentences like 8.3, in which the matrix intransitive verb incorporates its subject, and an embedded gerundivised verb incorporates its object. However, I have no spontaneous textual examples of such structures.

8.3   *Ga-yau-[ganj-ngu-nihmi]-re.*
Dj   3-child-meat-eat-IVF-goNP
         'The child goes along eating meat.'

No instances of more than one level of embedding have ever been reported, so the structure is not properly recursive.

8.1.2 *Main features of each slot; exemplification of affix orderings*

We now summarise the main features of each slot, and give pointers to the sections of the grammar in which they are discussed.

The obligatory PRONOMINAL ZONE, in slots (-12) to (-10), contains one or two pronominal prefixes, and sometimes an indication of tense/aspect/mood, as part of a complex paradigm, with up to 82 forms in the Kunwinjku dialect, which makes the most distinctions. In many cases there is a single portmanteau here; but there are cases where internal segmentation can be made in accordance with the ordering set out above, for example tense < subject, as shown by Dj *ga-barri-* or W *ga-birri-* [NP-3a] 'they (non-past)' vs Dj *barri-* or W *birri-* [(P)-3a] 'they (past)'; subject < object as in Dj *a-banmani-* or W *nga-benbene-* [1SUB-3uaOBJ].

A further layer of morphological complexity not shown in Figure 8.1 involves the breakdown of subject and object morphemes into person and number elements: in the above examples *-rri-* can be identified as an augmented number marker for subjects, and *mani-* (Dj) or *bene-* (W) as a unit augmented number marker for objects. The morphological analysis of these elements is most meaningfully carried out with respect to the whole pronoun paradigm and is discussed in §10.2.

In Kunwinjku, and sometimes in Mayali, the immediate prefix *h-* can move forward from its basic position at slot (-8) so that it falls between (-12) and (-11); compare *kabirrihkarrme* 'now they have it' [KH 157], where it follows the pronominal unit *kabirri-* '3a/3NP', with *kahbirridawe* 'now they put it to dry' [KH 155], in which it has been moved forward to immediately after slot (-12).

The optional DIRECTIONAL SLOT (-9), contains just two options — *m-* 'towards' and *bal-* 'away' (cf. *ngawam* 'I went', *ngamwam* 'I came' and *ngabalwam* 'I went along'). Only Gun-djeihmi, Gun-dedjnjenghmi and Kunwinjku have both, Kuninjku has only *m-*, while Kune and Manyallaluk Mayali lack this slot. See §11.2 for details.

The ASPECTUAL SLOT (-8) contains just one option, *h-* 'immediate', and Kune lacks this possibility; compare *ngangun* 'I eat' and *ngahngun* 'I am eating right now', and see the detailed discussion in §11.4.3. As mentioned above, this morpheme shares the typical positional instability of the glottal stop and sometimes shifts to an earlier syllable. Normally, though, it immediately follows the directional slot, as in the following examples:

8.4   *Ga-m-h-re.*
Dj   3-towards-IMM-goNP
        'He is just coming here.'

8.5   *Bolkgime   arri-bal-h-yakwo-n.*
Dj   now   1-away-IMM-finish-NP
        'We've just finished (building) it now'.

The first MISCELLANEOUS SLOT (-7) can be filled by one or more options drawn from a large set including adverbials like *gak-* 'at night', quantifiers like *bebbeh-* 'each', aspectuals like *bed-/bad-* 'in due course' or *guyin-* 'almost' (8.4), and spatial prefixes like *darnh-* 'close up'. These are discussed in §11.3–§11.6. There is considerable cross-dialectal variation in some of the items.

8.6   *A-bal-guyin-yakwo-yi.*
Dj   1-away-almost-finish-IRR
        'I've almost finished.'

Examples (8.7–8.9) illustrate the possibility of filling this slot with more than one prefix; *woh-*, *djarrk-* and *yawoyh-* all belong to the first miscellaneous class, *darnh-* to the second, while *mirnde-* allows two positional alternatives (see below).

8.7   *Arr-woh-djarrk-yo.*
Dj   12-a.bit-together-sleepNP
        'Let's you and me both sleep for a bit.'

8.8   *Birri-yawoyh-djarrk-mirnde-moname-rr-inj.*
W   3aP-again-together-many-assemble-RR-PP
        'They assembled together as a group.' [PC 62].

8.9   *Kabene-djarrk-darnh-na-n.*
W   3ua-together-close-see-NP
        'They two are looking closely together.' [E & E 40]

The BENEFACTIVE SLOT (-6) contains just one option, the benefactive applicative *marne-*; compare *ngawayirni* 'I sing' and *ngabenmarnewayirni* 'I sing for them' (W).   See §10.3.1.

The benefactive follows most miscellaneous prefixes (8.10–8.11), and precedes incorporated nominals (8.10, 8.12) and some position (-5) prefixes such as *djal-* 'only' (8.13):

8.10   *Bani-weleng-bepbe-marne-yaw-dulubu-rr-iny.*
MM   3uaP-then-each-BEN-child-spear-RR-PP
        'Then the two of them each speared the other over the (death of the) child.'

8.11   *Bi-wernh-marne-djare-ni.*
Dj   3/3P-properly-BEN-want-PI
        'He really loved him.'

8.12   *ø-marne-madj-ga-n.*
Dj   1/2-BEN-swag-take-NP
        'I'll take your swag.'

8.13   *Gabi-marne-djal-djare.*
Dj   3/3h-BEN-just-wantNP
        'She just loves him.'

Occasionally *marne-* is placed by speakers at a later point in the word: note *bimarneyawkuknguneng* 'he ate her child (lit. he ate the child's [*yaw*] body [*kuk*] on her'), in which *marne-* is regularly positioned, with the attested variant *biyawmarnekuknguneng*.

The second MISCELLANEOUS SLOT (-5) contains various quantifying affixes, such as *darnh-* 'close up' (§11.5.4).   Mostly *djal-* 'only' occurs in this slot, though it is also sometimes found in slot (-7), as in W *kabi-djal-marne-re* 'he just goes about by himself' [OP 475].

Since it is only possible to assign a miscellaneous-class morpheme to (-5) or (-7) if it cooccurs with the benefactive applicative, there are some miscellaneous-class morphemes in the corpus whose exact position have yet to be determined.

The GENERIC INCORPORATED NOMINAL (GIN) slot (-4) may contain an incorporated 'generic' nominal root like *dulk* 'tree', *warde* 'stone' or *bo* 'liquid' (cf. *ngarridjobkeng* 'we cut it', *ngarridulkdjobkeng* 'we cut the tree').   See §10.4 for full discussion.   The set of incorporable generic nouns is restricted to the 60 or so compounding nominals listed in Table 8.1, in §8.1.3.4.

The BODY-PART INCORPORATED NOMINAL (BPIN) slot (-3) may contain an incorporated 'body part' nominal like *bid* 'hand' or *bok* 'track'; see §10.4. The incorporated 'body part' nominal may co-occur with a generic nominal, which it follows:

8.14   *Ba-yau-dang-barrme-ng.*
Dj   3P-baby-mouth-open-PP
        'The baby opened its mouth.'

Unlike incorporated generics, incorporated body parts do not form a closed class: any nominal belonging to the class of body part nouns (and more broadly, the sphere of 'person parts' including 'spirit', 'voice', 'track' etc.) may incorporate here, including semantically specific multi-morpheme compounds, such as *berd-kurlah* [penis-skin] 'foreskin':

8.15   *Ka-berd-kurlah-djobke-rr-en.*
W   3-penis-skin-cut-RR-NP
        'He gets circumcised.' [KH 84]

More rarely incorporated are SECONDARY PREDICATES, such as *darrgid* 'alive' in *barri-darrgid-mangi* 'they picked them up alive', which appear in the general incorporated nominal zone, though the corpus has no examples allowing us to determine their relative position with respect to the other incorporated nominals. Indeed, it is not completely clear that they are a separate slot category, as opposed to an alternative reading of generic incorporated nominals (cf. *ngayawbawong* 'I left the child, I left him/her as a child' but *nganyawbawong* '(s)he left me as a child' rather than '? she left me, the child'). On the other hand, the most natural interpretation of *gerrnge* 'alive' in a sentence like 8.16 is that it is an incorporated secondary predicate, in a separate slot following incorporated generic and body-part nouns.

8.16   *Bi-yau-guk-gerrnge-gurrme-ng.*
MM   3/3h-child-body-new-put-PP
        'She put the baby down alive.'

The SPATIAL slot (-2) contains such prefixes as *da-* (Dj) and *larra-* (E) 'in the sun', *yirri-* 'spread', and *boiboi-* (Dj) 'flat'; these come between the incorporated nominal and the root, as in Dj *ga-warde-boiboi-yo* 'the rock (*warde*) is lying flat', Dj *arri-dulk-yirri-gurrm-i* 'we laid out all the sticks (*dulk*) parallel', or Dj *ba-guk-da-yoi* 'its body (*guk*) was lying in the sun'. Other affixes with spatial meaning, such as *warrgah-* (Dj, E) 'in the wrong place' or *darnh-* 'close up', occupy the miscellaneous slots earlier in the word. The numerospatial quantifier *mirnde-* 'many (spread out)' may occupy this slot, as in Dj *ba-gurlah-mirnde-bimbuni* 'she used to paint lots of buffalo hides (*gurlah-*)' or W *ø-dulk-mirnde-rri* 'there were many trees'. Alternatively, it may occupy the miscellaneous slot, as in Dj *ngaban-mirnde-madj-yi-bawong* 'I left the swags (*madj-*) with the many of them'.

The COMITATIVE slot (-1) contains just one optionthe comitative applicative *yi-*, which adds a comitative object (cf. Dj *ba-lobme-ng* '(s)he ran, went fast, drove', *ba-yi-lobme-ng* '(s)he ran with him, drove with him'); see §10.3.2 for discussion. As 8.17 illustrates, incorporated nominals precede the comitative prefix.

8.17   *Bani-guk-yi-rrurnde-rre-ni.*
Dj   3aP-body-COM-return-RR-PI
        'They brought each other back.'

The STEM slot (0) is essentially an open slot; as mentioned above, it may be simple or complex, and in the case of some denominal verbs can comprise four or five morphemes. Stem structures are discussed in §8.2.

The REFLEXIVE/RECIPROCAL slot (+1) contains the reflexive/reciprocal suffix-*rr*. This forms reflexive/reciprocal verbs like Dj *gabarri-bekka-rr-en* 'they listen to themselves; they listen to each other' (see §10.3.4), and also functions as a collective (§11.3.1.2), as in Dj *barri-dowe-rr-inj* 'they all died'. Also in this position is the persistive morpheme -(*yi*)*nd*-, discussed in §9.3.6.

The TAM slot (+2) is the locus for tense/aspect/mood inflections, with complex conjugational variants determined by the last syllable of the verb stem (in most cases), or, if present, by the morpheme occupying the reflexive/reciprocal slot. TAM inflections are drawn from a five-choice system of non-past, past perfective, past imperfective, imperative and irrealis (see §9.3). The form of the TAM inflection is determined by membership of the verb root in a complex system of conjugation classes, discussed in §8.2.3 and §9.2.

Finally, there are some dialect-specific possibilities for adding a case suffix after the final inflection. In Kune the locative -*kah* may be added to an inflected verb, in slot 3 (8.18, 14.19); in the Kunwinjku amd Manyallaluk Mayali dialects, this slot may be filled by the genitive case suffix -*ken* (14.18), and in Manyallaluk Mayali the temporal case suffix -*keno* can be added in the same place (8.99). See §14.1 for further discussion.

| 8.18 | *Namekke* | *ø-wam* | *nungka* | *kornkumo* | *bi-nah-na-ng-kah* | | *ø-wam.* |
| E:D | MA:DEM | 3P-goPP | he | father | 3/3hP-REDUP-see-PP-LOC | | 3P-goPP |

'His father went off for him, while (the clever man) watched him.'

8.1.3 *Types of noun incorporation*

Because of the importance and complexity of noun incorporation in Bininj Gun-wok, and the loose way in which 'incorporation' is often used in the linguistic literature, it is worthwhile discussing the five distinct types of situation in which a nominal root can appear as part of a verbal word. Two of these types are major sources of complexity in stem structure; the remaining three do not form complex stems (unless they have been phraseologised), but rather allow information about arguments, or secondary predicates on them, to be registered optionally on the verb. However, the high degree of formal overlap between these five constructions means that many important generalisations only become possible once the potentially confusing effects of these distinct types have been cleared away.

The five ways in which nominal roots may become part of a verbal word are:

(a) denominal verb formation

(b) noun–verb compounding

(c) generic noun incorporation

(d) body-part noun incorporation

(e) secondary predicate incorporation

Since the first two of these contribute to the formation of the verb stem, they are not given separate affix positions in Figure 8.1, being subsumed under the stem slot. Types (c) and (d) are represented by slots -4 and -3 respectively. Strictly speaking (e) merits its own affix

position, since it can co-occur with (c) or (d), but there are so few examples of it that a special affix position has not been assigned to it in Figure 8.1.

Except that (a) and (b) are mutually exclusive, each of the processes shown above operates independently. Unlike in some Iroquoian languages, for example, there is no limit of one noun root per verbal word, so that several nominal roots may appear as long as each instantiates a different type of incorporation (or results from the limited embedding discussed in §8.1). In 8.19, for example, the verb *girribun* has been formed by lexically compounding the nominal root √*girri* 'ground oven' (which would normally appear with the *gun-* noun-class prefix, i.e. *gun-girri*) with the simple root *bu-n* 'hit' to give a new lexeme meaning 'cook in a ground oven'; into this has been incorporated the body-part noun *guk-* 'body' and the generic noun *yau* 'baby'. Examples with such multiple nominal roots are often useful in deciding on the analysis of particular sequences.

8.19   *Namarnde   ba-yau-guk-girri+bo-m.*
Dj   devil   3/3h-baby-body-ground.oven+hit-PP
           'The devil cooked the baby's body in a ground oven.'

Of the above five types, the first two are lexical only — they form a single verb lexeme, do not have agnates in which the nominal appears externally instead of within the verb, are not amenable to description in terms of clause-level syntactic relationships, have an unconstrained set of thematic-role relationships between the verb root and its nominal portion, and their semantics cannot be compositionally derived. The last three are lexico-syntactic, in the sense that though they result in a single phonological and morphological word, the constraints on what word can incorporate, and the semantic interpretation of the resulting complex, can be characterised in terms of clause-level syntax. In some cases, though (see especially the discussion of derived double-object verbs, in §10.1.3.4), some details about argument structure that are pertinent to the role of the incorporated nominal (IN) must be lexically encoded on the verb.

Useful as it is to set up these five types for analytic purposes, the boundaries between them are sometimes unclear.

In the case of (b) on the one hand, and (c) and (d) on the other, this usually results from the ongoing tendency to create new lexemes by phraseologising syntactic incorporations. For example, *bo-ngun* [liquid-consume] 'drink' clearly originated as a generic incorporation parallel to *ganj-ngun* [meat-consume] 'eat meat' and still has the compositional semantics of a lexico-syntactic incorporation, but it is now virtually impossible to paraphrase this with an external nominal; *ngangun gukku*, in which the bound form *bo-* is replaced by the free external form *gukku* 'water', would sound as strange as 'I eat the water' in English, whereas *ngangun gun-ganj* is equivalent to *nga-ganj-ngun*, both meaning 'I eat (the) meat'. And unlike other instances of incorporated *bo-*, which have not been lexicalised and which have a phonetically long vowel, in the combination *bongun* the vowel may be pronounced either long or short (§2.1.2).

A comparable example with an incorporated body part are the sequences *bid-yi-karrmerren* and *bid-yi-nan*. Formally these can be analysed, respectively, as [hand-COM-takeRR] 'take each other by the hand' and [hand-COM-see/watch] 'watch X in the hand of'. But they are almost always used with the idiomatic meanings 'help one another' and 'learn from PRON:OBJ about how to make IN by watching OBJ's hands as (s)he makes it; watch how OBJ made IN' (8.20). In such cases the nominal is always incorporated rather than external.

8.20   *Bu   wanjh   ngarri-bal-djordm-inj   dja   ngarrben-na-ng   nawu*
W   SUB   then   1a-away-grow.up-PP   and   1a/3pl-look-PP   MA:REL

dolobbo   ngarrben-bid-yi-na-ni.
bark   1a/3pl-hand-COM-watch-PI
''And then when we grew up, we always watched them, and watched how
they made bark paintings.'

Blurring of the boundaries between (a) denominal verb formation and (b) lexical
compounding can arise because certain roots, such as *we-* 'throw', can function as
denominalising affixes in addition to being involved in numbers of lexicalised compounds.[2]
In an example like MM *djang.we* 'cause increase by throwing e.g. handfuls of stones from
the green plum dreaming at the appropriate *djang* (dreaming site)', is this an example of a
lexicalised compound '*djang*.throw', or a denominal causative 'to cause the *djang* (to do its
work of increasing)'? Many expressions denoting the creation of landscape features by
ancestral beings involve the verb *bun* 'hit', compounded with a noun for the landscape
feature, which may itself be a compound:

8.21   *Bani-[wardde-barrarn]-bo-m.*
Dj   3uaP/3-rock-escarpment-hit-PP
       'The two of them created the rocky escarpment.'

Are these instances of denominal verb formation, since the frame is productive and
hence not appropriately viewed as noun–verb compounding, or of lexico-syntactic
incorporation, since the root can occur alone? Such cases suggest that two (related) roots
need to be distinguished: one with a more concrete meaning (e.g. 'hit' for *bun*), which
participates in lexical compounds, and another with a general and more abstract meaning
(e.g. 'cause to exist', again for *bun*).

With regard to the three types of lexico-syntactic noun incorporation, namely generic,
body-part and secondary predicate incorporation, it is important to distinguish these types
as:

(a)   classes of lexical root, such that the generic class contains roots like *rurrk* 'cave,
      cavity' and *yaw* 'child', the body-part class contains roots like *mim* 'eye' and *kanem*
      'ear', and the secondary predicate class contains roots like *darrkid* 'alive' and
      ngoreng 'sick';

(b)   construction types linking a morpheme position to a particular type of semantic
      interpretation.

For each class of lexical root in (a) there is a favoured construction type (b) in which it
occurs, but there is also the possibility of it occurring in other construction types with
different interpretations. Thus certain body-part nouns can also occur with generic-noun
interpretations (e.g. *waral* 'spirit, shadow' as 'ghost, spirit', *kurlah* 'skin' as 'pelt' or 'hide',
dang 'mouth' as 'door', and *kuk* 'body' as a sort of filler for animate nouns with no
incorporable generic), and generic nouns with secondary predicate interpretations (see
§10.4.5). However, it is not possible just to plug in any semantically plausible noun and get
a particular interpretation; rather, we must stipulate membership of each of the three

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[2]   Harvey (1995:135–137) discusses a similar problem for another Gunwinjguan language, Warray, in
      which the verb *bu-m* 'hit' may also function productively as a factitive denominaliser meaning 'to make
      X', e.g. *wek-bu-m* 'to make a fire', from *wek* 'fire'.

classes. For example, even though the 'part' class is essentially open, it is limited to nouns designating objects that are normally parts of living creatures. If, in a particular anomalous case, another object serves as a body part (e.g. the stone axe or *garramalk*, which forms the knees of the lightning spirit Namarrgon in certain representations), it cannot be incorporated simply because it would be semantically compatible with the body-part construction on that occasion, and must occur as an external nominal (10.7).

8.1.3.1 *Denominal verb formation*

This involves the derivation, from a noun or adjective N, a verb of form N-V in which N is a complement rather than an argument. Prototypically V cannot stand alone; this is the case for the two inchoatives *-me* and *-men*, and for *-hme* 'causative/CALL', as well as *-ke* 'causative', but not for *-we* 'throw', *-wo* 'give' or *-bu* 'hit', all of which may also be used as denominal causatives, or *-da* 'stand' which can be used as a denominal inchoative.

Denominal verb formation is the only one of the five types to allow the retention of nominal derivational and compounding morphology inside a verbal word. Thus the denominal Dj verb *ngalgurrnghme* 'call OBJ mother-in-law' (e.g. *angalgurrnghme* 'I call her mother-in-law'), is formed by adding the causativising thematic *-hme* to the noun *ngal-gurrng* 'mother-in-law', with its class II prefix *ngal-* left in place, whereas the incorporation of the noun *gun-dulk* 'tree' into *djobge* 'cut' requires the dropping of the noun-class prefix, giving (for example) *a-dulk-djobgeng* 'I cut the tree' rather than the totally ungrammatical **a-gun-dulk-djobgeng*. Similarly, the class prefix may be retained when a verb is derived from a noun or adjective by means of the inchoativising root *–me*:

8.22   *Nga-murrng-bimbom   wanjh   naka   na-djamun,   [na-djamun]-me-rr-inj.*
W   1/3-bone-paintPP   then   DEM   I-taboo   I-taboo-INCH-RR-PP
         'I painted those bones and they are taboo, they have become taboo.'' [OP 353]

Denominal inchoatives are also unusual in allowing the presence, within the verb root, of compound forms like *kodj-bulu* [head-old.person] 'greyhair; old person' (8.23), as well as human kin nouns (8.24) or animal nouns (e.g. *mayh* 'animal' in 8.25 and *ngurrurdu* 'emu' in 8.26) that could not appear as an incorporated nominal.

8.23   *Ngaye kuringkunu   bolke   nga-djal-ni-wirrinj,   nga-kodjbulu-me-ninj*
W   I   here   now   1-just-sit-IRR   1-grey.hair-inchoative-IRR

         kuringkunu.
         here
         'Now I just stay here at this place I have grown old here.' [OP 354]

8.24   *Ngani-murre-go,   ngaye nga-djagerr-hme   nungga ngan-gogok-m-e̩.*
Dj   1ua-brother-DYAD   I   1/3-yB-CALL.NP   he   3/1-eB-CALL-NP
         'We're brothers, I call him younger brother and he calls me older brother.'

8.25   *Ba-lng-mayh-wo-rr-iny.*
MM   3P-then-animal-FAC-RR-PP
         'She turned herself into an animal then.'

8.26   *Bani-ngurrurdu-wo-rr-iny.*
MM   3uaP-emu-FAC-RR-PP
         'The two of them turned themselves into emus.'

Finally, just in the case of denominal verb formation, the nominal root can be an adjective. In 8.27, for example, the adjective root *djokko* 'tight' serves as the base for the denominal verb *djokkorranj* 'be(come) tight'; the part noun *kuk* 'body' has then been incorporated.

8.27 *ø-Kuk-djokko-rra-nj.*
W   3P-body-tight-stand-PP
     'It became tight.'

A particular type of denominal verb formation, first pointed out by Carroll (1976:78), is found with factitive uses of the verb *wo-* 'give', which as their complement may prefix a noun-modifier compound with the meaning 'give OBJ a [noun] which is [(that of a) modifier]':

8.28 *Barri-bid-wern-wo-ng.*
Dj   3aP-hand-many-FAC-PP
     'They made many handprints.'

8.29 *Bindi-keb-mayh-wo-ng.*
W   3a/3pl-beak-bird-FAC-PP
     'They gave them birds' beaks.' [Carroll 1976:78]

8.30 *Bindi-denge-kimuk-wo-ng.*
W   3a/3pl-foot-big-FAC-PP
     'They gave them big feet.' [Carroll 1976:78]

8.1.3.2 Noun-verb compounds

I use this term for compounds of a nominal and a verbal stem, comparable to English 'baby-sit', which need to be entered as a separate lexical item. This involves the compounding of a root (usually nominal or adjectival but sometimes verbal or adverbial) with an independent verbal root to form a new verb lexeme (e.g. *danj+bu-* [spear+hit] 'spear', *marri+dowe-* [be hungry+die] 'be starving'). The vast majority of verb lexemes in Bininj Gun-wok involve such compounds; in discussions in which the internal structure of stems is at issue I will place a + between compounding morphemes, as opposed to a - between syntactically incorporated nominals and their host verbs. Since noun–verb compounding derives new predicates (whose meaning may be compositional, as with *bo+ngu-* [liquid+eat] 'drink', or non-compositional, e.g. *ngei+bu-* [flower+hit] 'flower'), there is typically no other way of expressing the resultant meaning, and no option of paraphrase by omitting the compounded nominal or having it appear as an external nominal. Many compounds of this type originate as incorporated nominals and in some cases they may be difficult to distinguish from incorporated generics or body parts, as discussed above.

The major difference between noun–verb compounding on the one hand, and the various types of lexico-syntactic incorporation on the other, is that the former is non-productive, non-compositional and lexicalised, whereas the latter is productive, compositional and always allows unincorporated paraphrases. Stems formed by noun–verb compounding lack unincorporated paraphrases, and thus have a quite different grammatical status to those formed by the optional syntactic incorporation of generic or body-part nominals. Below I

outline a number of specific morphosyntactic tests distinguishing noun–verb compounds from lexico-syntactic incorporation.

8.1.3.3 *Distinguishing noun–verb compounding from lexico-syntactic incorporation*

As an example illustrating the difference between noun–verb compounding and lexico-syntactic incorporation, consider the verb complex *arrimimbowoni* 'we used to put (OBJ's) fruit in the water', from the following sentence:

8.31   *An-barnadja*   *ngarri-mim-bo+wo-ni.*
Dj   III-owenia.vernicosa 1a-fruit-water+put-PI
         put.in.water
         'We used to put the fruit of *owenia vernicosa* in the water (to poison the fish).'

This contains the two nominal roots *mim* 'fruit, seed' and *bo-* 'liquid'. The first (and outermost) is syntactically incorporated, the second results from noun–verb compounding. The omissibility test gives quite different results for the two nominal roots. The outer root *-mim* can readily be omitted from the complex, with optional replacement by an external nominal:

8.32   *An-barnadjdja*   *(an-mim)*   *ngarri-bo+wo-ni.*
         III-o.vernicosa III-fruit   1a-water+put-PI
         'We used to put *owenia vernicosa* fruit in the water.'

However, omission of *bo-* is quite unacceptable, even when there is an external nominal like *gukku* 'water':

8.33   **An-barnadjdja gu-wukku ngarri-mim-wo-ni.*
         III-o.vernicosa LOC-water 1a-fruit-put-PI

In addition to optionality, several other features distinguish syntactic incorporation from noun–verb compounding:

PRODUCTIVITY Syntactically incorporated nominals can appear with most semantically compatible verb lexemes; nominal roots in noun–verb compounds cannot.

WORD POSITION As mentioned above, incorporated nominals are ordered as GIN < BPIN < Compounded N. This was illustrated by 8.16 above in which the 'generic' *yau-* 'child' precedes the 'body part' *guk-* 'body', which precedes the compounded nominal *girri-* 'ground oven' which is part of the complex verb stem *girri+bu-* [ground.oven+hit] 'cook in a ground oven'.

In deciding whether *bo-* 'liquid' in *bongun* 'drink' (*ngun* 'eat') is a GIN or an instance of noun–verb compounding, for example, we can use these positional criteria. When we find the word *ka-kurlba-bongun* for 'he drinks blood', in which *kurlba* is the incorporated root of the body-part noun *kun-kurlba*, we conclude that the *bo* in *bongun* results from noun–verb compounding (for another example see KS 142, *kandi-kurlba-bongun* 'they drink our blood'). Note that this does not support any inference that *bo* in all other verbs is part of a noun–verb compound, since the same root can participate in several incorporation types. Each verb must therefore be analysed separately.

A similar case is *bolk-kadjung* [place-follow] 'copy', as in W *ngundi-bolk-kadjung* 'we copy you'. The first piece of evidence that *bolk* 'place, country' here is a case of noun–verb

compounding is that it is not an object of the verb, since 'you' is the object here; nor can *bolk* be a body part of the object, so it is not an example of body-part incorporation either. Additional evidence that it is part of a noun–verb compound comes from an example like *ngarrbenbene-djen-bolkkadjung* 'we copy the speech of the two of them' (Berndt 1951).[3] Since the root *djen* 'tongue, speech' is an incorporated body part, and precedes *bolk*, this is further evidence that *bolk* is not a GIN, and must be part of a noun–verb compound.

POTENTIAL PAUSE Pauses may be taken immediately before the verb stem on long verb complexes — after syntactically incorporated nominals but before compounded nominals — for example, *gaban-marne-madj....ga-n* [3/3pl-BEN-swag...take-NP] 'he will carry their swags' but *gabanmarne...girribun* [3/3pl-BEN...ground.oven+hit-NP] 'he will roast (it) for them in a ground oven'.

ACCESSIBILITY TO EXTERNAL MODIFICATION Syntactically incorporated nominals may be modified by external demonstratives, adjectives, numerals and relative clauses. Examples are

8.34   *Al-daluk   gabi-yau-garrm-e.*
        FE-female   3/3h-child-have-NP
        'She has a female child/a baby daughter.'

8.35   *Gu-gun   nga-mim-baba-ng.*
        LOC-right   1-eye-hurt-NP
        'My right eye hurts.'

Compounded nominals cannot be so modified, as shown by the unacceptability of trying to modify 'pouch' in 8.36:

8.36   **An-gimuk   ga-yau-djol+ga-n.*
        VEG-big   3-child-pouch+take-NP
        'It is carrying a baby in its pig pouch.'

GRAMMATICAL RELATIONS BETWEEN INCORPORATED NOMINAL AND VERB Syntactically incorporated nominals are predictable in the grammatical relations they contract with their verb: generic nominals must be intransitive subjects or objects (with some complications in the case of double-object verbs), and body parts must belong to intransitive subjects or to objects. Lexically incorporated nominals, on the other hand, may bear a variety of grammatical relations to the incorporating verb. With some, the grammatical relation is one of those permitted in syntactic incorporation, as with intransitive subject (+*yo* 'track.lie') or object (+*ngu* 'liquid.eat' i.e. 'drink'). With others, the relation is disallowed in syntactic incorporation but occurs in a limited number of noun–verb compounds. Examples of the latter are instrument, location, destination and source complements, and manner nominals (see §8.2.1.1 for examples.)

The wide range of grammatical relations between compounded nominal and verb here parallels the situation in languages whose only form of 'incorporation' is 'lexical' (in the terms of Mithun (1984a), which corresponds to my 'noun–verb compounding'). The variable and implicit relations between IN and V in such compounds conforms to Sapir's (1911:257) famous analogy between noun incorporation into verbs and noun–noun compounds:

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3   Berndt gives a slightly different translation, which I have corrected here.

the grammatical expression of a logical relation, in other words a syntactic process, is sacrificed to a compositional process in which the logical relation is only implied. The sacrifice of syntax to morphology or word-building is indeed a general tendency in more than one American language

It is clear that if noun–verb compounding is not systematically distinguished from syntactic incorporation, the range of grammatical relations would be wide enough to support the view that there are no syntactic constraints on generic or body-part incorporation. I shall argue against this anarchic position in §10.4. However, since one aim of my analysis is to prove that lexico-syntactic incorporation involves predictable grammatical relations between incorporated nominal and predicate, it would be circular to use grammatical relations to decide whether a given nominal root inside a verbal word is a case of compounding or incorporation. All classifications of N+V structures relevant to the question of grammatical relations must be made on the basis of the tests given above.

8.1.3.4 Generic and body-part incorporation

The incorporation of both generic and body-part nominals is optional, and restricted to particular grammatical relations; the semantic effects of incorporation are often hard to discern and mainly reside in discourse effects such as givenness and emphasis (see §10.4.3.3). Examples 8.37 and 8.38 illustrate the optionality of incorporation with a 'generic' object, and 8.39 and 8.40 its optionality with an object's body part. As these examples illustrate, noun-class prefixes are dropped when nouns are incorporated.

8.37   *Barri-ngune-ng   gun-ganj.*
Dj   3a/3P-eat-PP   IV-meat
        'They ate the meat.'

8.38   *Barri-ganj-ngune-ng.*
Dj   3a/3P-meat-eat-PP
        'They ate the meat.'

8.39   *Bamurru   a-bom   gun-godj.*
Dj   magpie.goose   1/3-hitPP   IV-head
        'I hit the magpie goose in the head.'

8.40   *Bamurru   a-godj-bom.*
Dj   magpie.goose   1/3-head-hitPP
        'I hit the magpie goose in the head.'

With intransitive verbs the incorporated noun is construed as the subject if a generic, and as a part of the subject if a part noun. Incorporated and unincorporated versions of the construction with generic nouns are basically equivalent (though the incorporated construction tends to favour a presentative or 'thetic' interpretation).

8.41   *Gun-dulk   ba-man.ga-ng.*
Dj   IV-tree   3P-fall-PP
        'The tree fell.'

8.42   *Ba-rrulk-man.ga-ng.*
Dj   3P-tree-fall-PP
        'A tree fell.'

However, with body-part nouns there is a preference for the noun to incorporate, and this is obligatory in intransitive constructions, when the verbal predication is true of the part but not necessarily of the whole (8.43). See §10.4.2.6 for fuller discussion.

8.43   *A-mim-warremi-nj.*
Dj   1-eye-go.bad-PP
            'My eyesight has gone.' (lit. 'I went bad in the eyes')

Although generic and body-part incorporation behave in a broadly similar way with respect to grammatical relations and optionality, a number of differences in their morphology and semantics allow us to distinguish the two types.

Firstly, there are POSITIONAL DIFFERENCES. When they co-occur, the generic incorporated nominal always[4] precedes the body-part incorporated nominal, as in 8.16 above (where the generic refers to a human) and 8.44, which involves a part (*djorrh* 'body') of an inanimate generic. (Incidentally, this example suggests that 'part incorporation' would be a more accurate designation for the construction, but I retain 'body part incorporation' on the basis of the prototypical semantic type.)

8.44   *Ba-m-djal-wardde-djorrh-djobge-ng.*
Dj   3/3P-hither-just-rock-body-cut-PP
            'He just cut the body (i.e. the column) of the rock coming this way.'

Secondly, there are DIFFERENCES IN THE PRODUCTIVITY OF INCORPORATION. Incorporated body parts form an open class: any named body part of a human, animal or plant can be incorporated, no matter how specific. For example, detailed anatomical terms are regularly formed via whole-part compounding (e.g. *gun-berl-gal-murrng-yahwurd* [IV-arm-marrow-bone-small] 'radius', *gun-godj-mud* [IV-head-hair] 'head hair' or *gun-garre-mok* [IV-calf-sore] 'sore on calf'), and these compounded body parts may be incorporated (8.45–8.47). Also included in this class are other sorts of inalienably possessed nouns, such as 'name' or 'spirit' (see §10.4.5 for a full semantic characterisation).

8.45   *Ngan-garre+mok-bukka-ng.*
Dj   3/1-calf+sore-show-PP
            'He showed me the sore on his calf.' (lit. 'showed me his calf-sore')

8.46   *Nga-godj+mud-djobge-rre-n.*
Dj   1-head+hair-cut-RR-NP
            'I'm going to cut my hair.'

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4   A possible counterexample is the sentence *ngalekke ngalengman kumekke kadjalwaralbimdi* 'there are rock paintings of her spirit there'. Here the part noun root *waral* 'spirit' precedes the generic *bim* 'painting'. There are two analytic possibilities:

(a)   *bimdi* really involves noun–verb compounding in this example, though this is implausible given the productivity of incorporated nouns with stance verbs in presentative constructions (e.g. *dulkdi* 'there is a tree there'). We do not yet know whether another generic can be incorporated here (e.g. *dulkbimdi* 'there is a painting of a tree'); if so, this would support its analysis as a case of noun–verb compounding.

(b)   the standard order can be reversed in presentative constructions. To test this account, we would need to check for parallels (e.g. *djorrhdulkdi* 'trunk of tree stands'). A possible parallel is I *kom-darnh-di namekke ngarrihnan* 'we see the neck closely' (can this be re-phrased as 'there is a prominent neck close there, which we see'?), in which the prefix *darnh-* 'close up' is, exceptionally, between the incorporated noun and the root.

8.47   *Wanjh ø-denge-nud-dowkke-ng.*
I   then 3/3P-foot-pus-burst-PP
        'Then he burst the pus out of his foot.' (lit. 'then he burst out his foot-pus')

Generic incorporated nominals, by contrast, are drawn from a closed class of around sixty items. This is essentially the same as the set of compounding elements in modifying compounds (§5.4.3), and the same few suppletive forms occur there as well: thus Gun-djeihmi and Kunwinjku have *bo* as the incorporating form meaning 'liquid, water' with verbs, and also in nominal compounds, as opposed to the free form *gukku*; in Kune and Kuninjku the incorporating and compounding form is *kolk* as opposed to the free form *kun-ronj*.[5] Note that in Kuninjku there is one suppletive compounding/incorporating form in the body-part set as well: *kord* 'shit' as opposed to the free form *kudduk*. This evidently results from lexical replacement affecting the free noun but not the incorporated form, since in other dialects, such as Gun-djeihmi and Kunwinjku, the root is used as both the free and incorporated form: Dj *an-gord*, W *man-kord* 'shit'.

This set is listed in Table 8.1 with roots arranged alphabetically; the noun class prefixes that occur when they are external are given in brackets; as elsewhere *(m)an-* indicates that the Class III form is *(ng)an-* in the Mayali dialects and *man-* in other dialects. For Kune and Manyallaluk Mayali words which take the part suffix *-no* when used as free forms, this is shown in brackets, since it is dropped when the noun incorporates. Kunwinjku orthography is used unless a form is limited to a dialect with a different orthography, in which case the orthography appropriate to that dialect is used. Unless otherwise specified, the same form, modulo the changes above, is found in all dialects. In this alphabetisation *g* and *k* are treated as equivalent.

There is a strong dispreference for CV syllables in incorporated nouns; the only exceptions are the suppletive form *bo*, and the form *go* in E and MM.

Although the term 'generic noun' applies reasonably well to most items on the list, there are some, such as *gun-ngale* and *gun-wabban* (both meaning 'axe-handle'), which are more specific. Of the main list, all but one are inanimate; the only freely incorporable animate is *yau* 'child, baby'.

Unlike in Tiwi, for example, where there are incorporated forms referring to such animals as 'live wallaby', 'dugong or turtle', 'crocodile', 'buffalo' and 'dog' (Osborne 1974:49), or the more closely related language Rembarrnga, which may incorporate the noun *djenj* 'fish' as well as certain kin terms such as *njarra* 'father' (McKay 1975:298), Bininj Gun-wok has no incorporated nouns referring to non-human animates. Note that this is specifically a block on incorporation, rather than a block on the more general presence of nominal roots denoting animates in the verbal word, since a broader range of animate and human nouns can occur within denominal verbs (see examples in §8.1.3.1 above).

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5   Several related languages have the same suppletion, e.g. Ngandi *bun-* 'water' (compounded form), *(ku-)djark* 'water' (free form); Ngalakan *binyi* 'water' (compounded form), *we?* 'water' (free form). In Ngalakan, as in Mayali, this is the only suppletive incorporated nominal in the language.

Table 8.1: Incorporating generic nouns

[(m)an-]	barrarn	'escarpment'		gunak	'fire' (Dj only; this includes
[kun-]	bili	'fire'			a frozen class IV prefix and
	bo-	'liquid' [incorp. only;			is etymologically connected
		nearest external equivalent			with *kun-rak* in I and E; see
		gukku 'water'] (Dj, W)			below)
	bod	'bee'	[kun-]	kurlah	'hide, pelt'
[kun-]	boy	'cooking stone'	[kun-]	kurlk	'dirt'
[(m)an-]	bolh	'track, kangaroo or buffalo	[man-]	lod, lod(no)	'loaf' (I, E only)
		pad'	[kun-]	madj	'swag, possessions'
[kun-]	bolk	'place, ground'	[man-]	mala	'branch' (I)
[kun-]	bulé	'ashes, burnt ground'		malayi	'(to)morrow'
[an-]	bunj	'bamboo clump, bamboo	[man-]	me[6]	'vegetable food'
		plant' (Dj, Dnj only)		mile(-no)	'woven material; bedding or
	dabu	'egg'			cloth' (I, E)
[kun-]	dalk	'grass'	[kun-]	moken	'bundle'
	deleng	'contents (of a container)'		mudda	'sun' (MM)
	djalk(no)	'branch' (E only)	[kun-]	ngale	'axe-handle'
[kun-]	dolng	'smoke, mist'	[(m)an-]	ngui	'flower' (Dj, W)
[kun-]	dule	'song' (I, E)	[kun-]	red	'camp'
[kun-]	dulk	'tree; stick'		njilk	'rain, rainwater' (MM)
[kun-]	dung	'sun'	[kun-]	rak	'fire; firewood' (I, E; see also
[kun-]	dorrh	'vine'			*gunak* above for Dj syn. of
[kun-]	djorrh	'body, form' (Dj, I)			'fire' meaning, and *kun-*
[kun-]	djurle	'bark shelter, shade'			*yerrng* below for syn. of
		(Dj, W)			'firewood' meaning in other
[kun-]	djurrk	'fast-flowing water'			dialects)
[(m)an-]	kabo	'billabong'	[(m)an-]	rud	'road, track'
	galh(no)	'tree stump' (MM)	[kun-]	rurrk	'shelter, house'
[(m)an-]	karre	'custom, manner; (Dj) song'	[kun-]	wabban	'axe-handle'
[kun-]	kanj	'meat'		wadda	'home' (MM)
[kun-]	keb	'burning wood' (also 'nose'	[kun-]	ward(d)e	'rock; (coin) money'
		when used as body part)	[kun-]	wok	'word, language, news'
	go(no)	'flower' (MM)		yau	'baby, child; child [of woman]'
[kun-]	kod	'paper money' (I)	[kun-]	yerrng	'firewood' (*kun-rerrng* in E;
[(m)an-]	kole	'bamboo shaft; spear-shaft'			*kun-rak* used in I)
[kun-]	golk	'water, liquid' (E, MM =	[(m)an-]	yiwk	'honey' (also used as
		Dj, W *bo-*)			incorporated form of
[kun-]	korrk	'material, clothes'			*(m)an-kung*)[7]
	kuk	'any animate [see below];			
		money'			

6   I have never heard *me-* incorporated in any dialect, or seen it incorporated in any text in my corpus. However, Oates (1964:55) has the form *birridjarrkmedjareni* for 'they were all wanting food', suggesting it was incorporable at an earlier phase of the language.

7   This is an incipient suppletive form. For speakers in some dialects (e.g. Kuninjku) this root specifically designates the fluid part of wild honey when used as a free nominal, but when incorporated means 'honey' more generally, a meaning generally expressed (in all dialects) by the free form *(m)an-kung*.

There are three other human nouns, however (*daluk* 'woman', *bininj* 'man' and *beiwurd* 'child through male line'), which can incorporate in limited circumstances — basically as the lower object of double-object verbs (§10.1.3.4).

Thirdly, there are DIFFERENCES IN THE SEMANTIC RELATIONSHIP linking the incorporated noun to its co-indexed pronominal and external exponents. Incorporated generics, as the name implies, serve to classify items that may be further specified by external nominals, as in 8.48, 8.50 and 8.52. Specific nominals, on the other hand, cannot be incorporated (8.49, 8.51). Semantically, then, the structure IN-V N designates a generic/specific relationship when the incorporated noun is generic.

8.48   *Ga-rrulk-di   an-dubang /   an-bernbern.*
Dj   3-tree-stand(NP)   III-ironwood.tree   III-ghost.gum
         'An ironwood/ghostgum tree is there.'

8.49   **Ga-rrubang-di /   *ga-bernbern-di.*
Dj   3-ironwood.tree-standNP   3-ghost.gum-standNP

8.50   *Ga-yau-garrm-e   al-daluk.*
Dj   3/3-baby-have-NP   II-female
         'She has a baby girl.'

8.51   *Ba-bo-yakm-inj   gukku /   gun-gih /   an-bang.*
Dj   3P-liquid-disappear-PP   water   IV-mud   III-grog
         'The water/mud/grog is all gone.'

8.52   **Ba-gih/bang-dowe-ng.*
Dj   3P-mud/grog-die-PP

Incorporated body-part nouns also frequently co-occur with external nouns designating the possessor of the body part, as in (8.53, 8.54). But in this case the semantics is one of affected body-part/affected whole (§10.4.2).

8.53   *Bamurru   a-godj-bom.*
         magpie.goose   1/3-head-shootPP
         'I shot the magpie goose in the head.'

8.54   *Daluk   ga-mim-baba-ng.*
         woman   3-eye-be.sore-NP
         'The woman has a sore eye.' OR: 'The woman is sore in the eye.'

Despite these differences in their semantic foci, the classes of incorporated generics and body parts show some overlap, resulting largely from polysemy of the relevant body-part noun. Some examples are given in Table 8.2 (in their Gun-djeihmi forms).

Table 8.2: Polysemy of incorporated body-part/generic nouns

Term	Meaning as incorporated body part	Meaning as incorporated generic
gun-gurlah	skin	pelt, hide
an-mim	fruit, seed pod	fruit, seed pod
gun-ganj	flesh, muscle	meat

Others have the same reference, but may occur with either a generic function (when the possessor is irrelevant) or a body-part function (when the possessor is involved, and named), for example *dabu* 'egg', *an-djud* 'butt (of yam)', *gun-yed* 'nest', *gun-marlaworr* 'leaf' and *gun-bok* 'track'. In fact, it is better to view the categorisation into generic and part nouns as simply a morphological classification, since part nouns can sometimes be used as arguments in their own right, while on the other hand some non-part nouns, when used in exceptional circumstances to denote body parts, are not conferred with the right to incorporate; *garramalk* 'stone axe' in 10.7 is actually part of Lightning Man (whose knees are made of stone axes, which he strikes together, underlying the use of the reflexive construction here), but does not incorporate in the way a regular body-part noun would.

Owing to these problems, it is not always obvious whether a generic or body-part construction is involved. Apart from the clues supplied by the presence of an external nominal denoting the 'whole' if a body-part construction is involved, or a 'specific' if a generic construction is involved, the most reliable test is to try double incorporation, since only a single incorporated nominal per slot type is allowed. In 8.16 above, for example, and in 8.55, the presence of *yau* 'child' in the generic nominal slot means *guk* and *dang*, in the following slot, can only be interpreted as body-part nominals.

8.55   *Ba-yau-dang-barrme-ng, ngal-badjan, gabi-wo-n.*
Dj   3P-baby-mouth-open-PP   II-mother   3/3h-give-NP
         'The baby opened its mouth, and (its) mother is feeding it.'

A more broadly applicable test is to see whether the affected possessor must be introduced with the benefactive applicative (as happens with generics) or not (as with body parts). This will be described in §10.4.2.2.

8.1.3.5 Secondary predicate incorporation

Secondary predicate incorporation can typically be distinguished from generic and body-part incorporation on the grounds of both its meaning and the participating morphemes.

In terms of its meaning, it predicates a state holding of the absolutive argument at the time of the action denoted by the verb stem (e.g. 'alive' of the intransitive subject at the time of running away in 8.56, or of the object at the time of being born in 8.13), rather than giving object-like properties helping pin down the referent, as with the body-part and generic INs discussed above.

8.56   *Ba-rrarrgid-wam.*
Dj   3P-alive-goPP
         '(S)he ran away alive.'

In terms of the participating morphemes, these are virtually all limited to functioning as predicate nominals rather than referring nominals when outside the verb; such is the case, for example, with *darrgid* and *mimbi*, both meaning 'alive', and both of which are used externally as predicate adjectives, taking the predicate pronominal prefix rather than the gender prefix (e.g. Dj *ga-rarrgid* or W *ka-mimbi* '(s)he is alive').

In rare cases positional tests can distinguish incorporated secondary predicate nominals from generic or body-part nominals, for example 8.16 above, in which the incorporated secondary predicate *-gerrnge-* 'alive' follows the incorporated generic and body-part nouns. However, in the overwhelming majority of examples the secondary predicate is the sole incorporated nominal, making this test difficult to apply consistently.

In situations where the argument normally aligned with the incorporated nominal slot is non-third person, however, it is possible to get a secondary predicate reading from a normally generic incorporated nominal; compare the argumental interpretation of *yau* as 'child' in 8.57 with its secondary predicate interpretation as 'as a baby, as a child' in 8.58, in which the argument identification is carried out by the first person pronoun. (For fuller discussion of the argument linking here see §10.4.5.) Such examples suggest that the division between generic and secondary predicate incorporated nominals is not based simply on the morphemes involved, but on the plausibility of particular semantic interpretations given the meaning of these morphemes, and their interaction with other aspects of the construction.

8.57   *Arduk   garrard   an-yau-yi-bawo-ng.*
Dj   my   mother   3/1-child-COM-leave-PP
        'My mother left the child with me.'

8.58   *An-yau-bawo-ng   kure   bedda.*
Dj   3/1-child-leave-PP   LOC   them
        'My mother left me, as a child, with them.'

8.2 Structure of the verb stem

Most verb stems are either simple monosyllabic roots, like *yo* 'lie' or *bu* 'hit', or can be broken down into a PREPOUND plus a monosyllabic THEMATIC. (There are also more complex cases involving more than one prepound, or denominal verbs whose nominal root is internally complex, to be discussed below.) A few verbs, such as *dowe* 'die', *ginje* 'cook' and *baye* 'bite' appear on the basis of their distant cognates to have been disyllabic since a very early stage. Since they lack other verbs sharing their second syllable, they do not yield naturally to an analysis into prepound and thematic, and are best treated as disyllabic roots; in fact, they may rarely take prepounds of their own, as in the root *marrwedowe* 'be hungry', based on *dowe* 'die'. Occasionally there is more than one prepound, as in the verbs *durndulubun* 'nail (tr.)' with the prepounds *durn* and *dulu*, and *bengwabun* 'get lost', with the prepounds *beng* and *wa*.

The thematic may be formally identical to a simple root (as in *bimbu* 'paint', made up of the noun root *bim* 'painting' plus the verb root *bu* 'hit'). Or it may only occur in combination with prepounds, as with the thematic *de*, which never occurs alone (and hence is not considered a root), but recurs in a number of compound stems, e.g. *durnde* 'return', *ngukde* 'defecate'. Some such thematics may have originated as simple roots, whose basic form has been lost but survives only in compounds. An example is *ke*, which only occurs in combination in Bininj Gun-wok, but which in Wagiman is a free verb meaning 'put' (Cook 1987:216).

An interesting halfway-type is the root *wa*, which surves as thematic for such verbs as *yawa* 'search for' and *wakwa* 'not know, forget', but as a root is restricted to the past perfective form *wam* of the suppletive verb 'go', whose root is *re* in other TAM values. In Dalabon, however, *wa* is a fully independent root, meaning 'follow', suggesting that the semantic shift that resulted in it joining the suppletive 'go' verb in Bininj Gun-wok has left it severely restricted as an independent root, predominantly surviving as a thematic on complex verbs. Because of the equivalence of thematics and roots in determining conjugational variants, I shall extend the term thematic, in discussions of verb conjugation,

to cover simple roots as well, though I will use a leading hyphen on thematics proper (e.g. *-nje*, which never occurs alone), but none on thematics that are also roots (e.g. *bu*).

The thematic determines the conjugation-dependent form of the TAM inflections. The data will be given in full in §9.2, but for the moment the principles can be illustrated with the restricted set of data given in Table 8.3. As this table shows, different thematics pattern differently in the form of their TAM inflections. For example, *-ng* marks the past perfective with verbs in thematic *-me, na, wo, we* and *-nje*, but it marks the non-past with verbs in thematic *ru* and *-lu*; likewise *-n* marks the imperative with verbs in thematic *-me*, but the non-past with verbs in thematic *na* and *wo*; with this last set of verbs, the imperative is marked by ∅, which marks the non-past with verbs in thematic *-me, we* and *-nje*.

Table 8.3: Simplified illustration of how thematics determine conjugation.

Root/thematic		IMP form	NP form	PP form
-me		*-men*	*-me*	*-meng*
bame	'shine'	*bamen*	*bame*	*bameng*
na	'see'	*na*	*nan*	*nang*
widna	'hate'	*widna*	*widnan*	*widnang*
wo	'give'	*wo*	*won*	*wong*
bawo	'leave'	*bawo*	*bawon*	*bawong*
we	'throw'	*wemen*	*we*	*weng*
kowe	'tell a lie'	*kowemen*	*kowe*	*koweng*
kinje	'cook'	*kinjemen*	*kinje*	*kinjeng*
ru	'burn' (intrans.)	*ru*	*rung*	*ruy*
karu	'dig'	*karu*	*karung*	*karuy*
kolu	'descend'	*kolu*	*kolung*	*koluy*

Table 8.3 also shows how simple roots, and complex stems built from them by adding a prepound, pattern identically with respect to their conjugation (e.g. the pairs *na, widna; wo, bawo;* and *ru, karu*), and how several thematics often group together into a common pattern (e.g. *we* with *kinje*, and *ru* with *-lu*). Up to five thematics may be grouped together into a single conjugation; for example, the thematics *du, ru, lu, dju,* and *do* all form the non-past by adding *-ng*, the past perfective by adding *y*, the past imperfective by adding *yi* and so forth, so they are grouped together into the same conjugation (arbitrarily numbered conjugation 5).

Prepounds may be of a number of types: they may be incorporated nouns, spatial prefixes, gerundivised verbs, or else they may be limited to being prepounds. Even in the latter case, there is a range in the degree of semantic independence — from prepounds occurring in a number of verbs sharing some semantic characteristic, to those limited to one verb but having clear etymologies in another language, to those that are totally unanalyseable. The various possibilities are discussed below. As with incorporated nominals, simple CV prepounds are rare (examples are *ya* in *yawa* 'look for' and *ba* in *bawo* 'leave'), and the preference is for closed monosyllables or disyllables.

The structure of denominal verb stems is more complex, since it inherits affixation and compounding possibilities from the nominal morphology. Thus the denominal stem *djorlokdjorlokwernme* in 8.59 includes the nominal compound *djorlok djorlok wern*

[deep-deep-many] 'with many deep holes' (plus an incorporated generic, *bolk*), while the denominal stem *gundoihme* in 8.60 includes the IV-class prefixed nominal *gun-doi* 'type of father-in-law'.

8.59   *Ga-bolk-djorlok-djorlok-wern-me-n.*
Dj   3-country-deep-deep-many-INCH-NP
        'The country gets ruined with many deep holes (mines).'

8.60   *Arr-gun-doi-hme*   *Nabangardi,   Nakodjok.*
Dj   1a-IV-father-in.law-FAC.NP   Nabangardi   Nagodjok
        'We call Nabangardi and Nagodjok men father-in-law.'

We now examine prepound + theme and denominal verb structures in more detail.

8.2.1 Prepound plus theme structures

Prepounds may be of a number of types: compounded nouns (§8.2.1.1), spatial prefixes (§8.2.1.2), ideophones (§8.2.1.3), incorporated verbs (§8.2.1.4), sequences only attested as prepounds (§8.2.1.5), or, rarely, a lexicalised noun plus suffix (§8.2.1.6).

8.2.1.1 Compounded nouns as prepounds

These are the commonest type of prepound; in them the prepound is identical in form, and semantically related to, a free noun root. The main criteria for distinguishing noun–verb compounds from the various types of lexico-syntactic incorporation are position, indispensability and idiomaticity, as discussed in §8.1.3 above.

The compounded nominal may bear a wide variety of thematic relations to the verb root. In addition to intransitive subjects and objects, which are common in lexico-syntactic incorporation as well, the compounded nominal may be a body part (belonging to a whole bearing a variety of relations to the verb), an instrument, source or manner. Some are so inextricably linked with their compound meaning that a particular relation is hard to identify.

Noun–verb compounding, unlike lexico-syntactic incorporation, may affect the transitivity of the verb stem. Thus *nguibun* 'flower, break into flower' is intransitive, but its thematic *bu* 'hit, kill' is transitive; conversely *gebbarrkme* 'punch in the face' is transitive but its root, *barrkme* 'break' is intransitive.

Some examples of various thematic roles follow. The thematic roles I claim are not meant to be the only possible analysis, since a major characteristic of this kind of compounding is that the nature of the relation between entity and verb is not made grammatically explicit.

INALIENABLE PART OF INTRANSITIVE SUBJECT (theme)

bok-yo	*ngui-bun*	*ngei-yo*
track-like	flower-hit	name-like
'be a track'	'flower, come into flower'	'be called'

INALIENABLE PART OF TRANSITIVE SUBJECT
djol-gan
pouch-carry
'carry in pouch'

PATIENT, THEME

bo-ngun	*bo-bun*	*werrk-we*
liquid-consume	liquid-hit	outside-throw
'drink'	'strike water with'	'peel off (e.g. sheath hands to scare fish from bamboo)'

INSTRUMENT

danj-bun	*barrk-bun*	*bad-dab.ke*	*dolng-bun*
pronged.spear-hit	covering-hit	rock-block.shut	smoke-hit
'spear with a fish-spear'	'wrap'	'block entrance with a rock'[8]	'drive away (spirit) by smoke of ironwood leaves'

LOCATION

gerri-bun	*red-di*	*wilk-deng*
ground.oven-hit	place-stand	ash-?
'cook in a ground oven'	'have campsite at a place'	'cook under the ashes'

DESTINATION   SOURCE

bo-won	*wilk-mang*
liquid-give	ashes-pick.up
'put (poison) into water to kill fish'	'take out from the ashes'

TIME/AMBIENCE
dird-kan
moon-carry
'hunt by moonlight' (W)

INDETERMINATE

ngei-bun	*goi-bun*	*woibuk-we*
name-hit	glans.penis-hit	true-throw
'name, call by name'	'urinate'	'believe'

8.2.1.2 Spatial prepounds

By spatial prepounds I mean recurring elements, limited to prepound position and not occurring outside the verb, that encode information about spatial disposition or position. Most occur in pairs, organised around the contrast 'be in position P' vs 'cause to be in position P', with the contrast shown by a range of different oppositions between thematics, typically *di* 'stand, be positioned' vs *name* 'make' or *do* 'strike'. In some cases forms that would be expected to belong to this group on semantic grounds are only attested with one thematic, as in the case of *-lurlh-di* 'lean, be hunched over'.

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[8] This is, of course, another example involving two prepounds; the inner *dab-* segment only ever occurring as a prepound.

The difference between these and the more closely bound spatial adverbial prefixes, such as *da-* 'in the sun' and *yirri-* 'spread', is not always easy to sustain. Where a spatial prefix predominantly combines with simple thematics (this is the case for *bong* and *djong*, for example), I place it here, whereas when it frequently combines with thematics to which a prepound has already been attached (e.g. *da-kurrme* 'put in sun', *da-barrkme* 'crack in sun') I place it in the section on spatial adverbial prefixes (§11.5.3). However, the boundary is a fuzzy one and may be drawn differently as more exhaustive lexicographic work unearths fuller sets of combinations.

Table 8.4: Some typical pairs involving spatial prepounds

djongdi	'be inside something tight fitting, e.g. head inside hat'
djongbu	'put on clothes'
bongdi	'be attached together' (I)
bongdo	'strike each other, so as to get stuck together' (I)
djabdi	'be standing up, be vertical'
djabname	'place in a standing, vertical position'
barndi	'be located up high' (Dj, Dnj, W, I)
barnname	'place up high' (Dj, Dnj, W, I)
wendi	'be located up high' (E, MM)
wenname	'place up high' (E, MM)

Interestingly, in Kun-kurrng these spatial prepounds are not replaced by other forms, although their thematics are; this contrasts with the situation with compounded nominals. Thus corresponding to the set *dahkendo* and *dahkenwe* (see below) we have the Kun-kurrng forms *dahkenlorlme* and *dahkenwarlhke* .

Some typical pairs involving spatial prepounds are given in Table 8.4.

Often the reflexive of the transitive form is used to describe the assuming of the relevant position (e.g. *djongburren* 'put one's clothes on', or *dahkendorren* 'get inside').

Some spatial prepounds, as in Table 8.5, combine with a slightly larger set of thematics, or show a more idiosyncratic set of oppositions between thematics.

Table 8.5: Some spatial prepounds

bod-di	be.low.down-position	'lie face down'
bod-dan	be.low.down-stand	'lift head up to peer'
bod-kawon	low.down-run.away. in.fright	'wake a sleeping animal and it runs away'
balh-me	blockage-CAUS	'close, block off'
balh-ngun	blockage-eat	'fuck, sodomise'
dahken-di[9]	*dahken*-stand	'be inside a container' (all dialects)
dahken-dong	*dahken*-strike	'put inside a container' (all dialects)
dahken-we	*dahken*-throw	'spread out a swag'

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9   This may represent a frozen use of genitive *-ken* with incorporated locationals, something that is more productive in Dalabon (see also §11.5.6). The formative *dah-* may be cognate with the Dalabon spatial prepound *dad* 'inside', as in *daddi* 'to be inside'.

8.2.1.3 Ideophones

A few verbs have as their prepounds words that mainly occur as ideophones. Most have *-ke* as thematic, as in *lidjke* 'pinch', built on the ideophone *lidj!* 'pinch!'; *wayhke* 'lift', built on the ideophone *wayh!* 'up!'; and *borrhke* 'dance', corresponding to the reduplicated ideophone *borrhborrh!* (which could be used to describe a dance, for example).

8.2.1.4 Incorporated verbs

The incorporation of verbs into verbs is discussed in full in Chapter 12. In most cases both the incorporated and the host verb contain full stems, capable of functioning alone as a lexical verb. For example, 8.61 exemplifies the incorporation of the lexical verb *wayini* 'sing' (itself analysable into prepound *wayi-* plus *ni* 'sit') into the lexical verb *yerrga* 'sit' (itself comprising prepound *yerr-* plus *ga* 'carry, take'), while 8.62 illustrates the incorporation of the lexical stem *golu* 'descend' (comprising prepound 'go' plus thematic *lu*), suffixed with gerundivising *-ih-*, into the simple lexical stem *we* 'throw', used here as a causative.

8.61   *Ga-wayini-yerrga-n.*
Dj   3NP-sing-sit.downIVF-NP
        'He sits down singing.'

8.62   *Gan-golu-ih-we-men*   *gore*   *Manaburdulba*
Dj   2/1-go.down-IVF-throw-IMP   at   [place]
        'Drop me off at Manaburdulba.'

In some cases, however, the host for gerundive incorporation is not a lexical verb but merely a thematic incapable of functioning independently. This is most obvious with the transitive thematic *-ke*, which is associated with a number of causative lexicalisations (§12.2.1), among which is the formation of some causatives through the incorporation of gerundivised intransitive verbs, exemplified by 8.63. In such cases it has a complex prepound, comprising a gerundivising suffix applied to a verbal stem which may itself then comprise a thematic plus a prepound, as in the case of *bidbuih*, here prepound *bid*, thematic *bu* plus gerundivising *ih*.

8.63   *Bandi-bidbu-ih-ge-yi*   *yawurrinj.*
Dj   3a/3pl-go.up-IVF-TR-PI   young.man
        'They would make/get the boys (to) climb up (the trees).'

8.2.1.5 Sequences limited to prepounds

Many prepounds are either one-off cranberry morphs, such as the *ba-* in *bawo* 'leave', the *marn-* in *marnbu* 'make'[10] and the *ya-* in *yawa-* 'look for', or appear in just a couple of

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[10]   By analogy with the common Australian pattern of forming the verb 'make' as the factitive of 'good', i.e. 'make good' (e.g. Kayardild *mirrayalatha* 'make' (*mirra-* 'good'), Warlpiri *ngurrjumani* 'make' (*ngurrju* 'good') and Dalabon *monwon* 'make' (*mon* 'good')), we would expect the prepound *marn* to have originally meant 'good', and indeed the Kunkurrng paraphrase of *marnbun* as *marlangweybun* combines *marlang* 'good' with *weybun* 'give, cause to be'. However, the lack of any other word in which *marn* recurs makes it impossible to confirm or reject this hypothesis.

verbs whose semantic relationship to other is too irregular to allow us to postulate anything more than a vague meaning (e.g. the meaning of 'being fixed in one place' assignable to the prepound *mad* in *maddi* 'stay in one place' and *madbu* 'wait'). Sometimes the prepound is attested as a free nominal root but the semantic relationship is too tenuous to justify treating it as a clear case of noun–verb compounding, as with *bidbu* 'go up', where *bid* is a noun root meaning 'hand' but not bearing a clear relationship to the semantics of the verb.

In some cases, however, there are tightly organised semantic groups in which a clear meaning for the prepound is in evidence, for example the meaning 'return' for *durn* in *durnde* 'return' and *durn.ga* 'take back'.

Sometimes an original meaning of the prepound can be uncovered by etymological research, but is no longer synchronically present in the language: the *yerr* in *yerrgan* 'sit', which occurs only once as a prepound, is probably related to the doublet roots *red* 'camp, home'/*yed* 'nest' (on the *r:y* correspondence see §1.2.4.8, and on the detrilling of word-final *rr* to *d* see Harvey, in press), and the *wayi* in *wayini* 'sing' is probably an old incorporated verb, on the basis of such cognates as Kayardild *wayiija* 'sing'.

8.2.1.6 Lexicalised noun plus case suffix

Occasionally an incorporated noun along with a nominal suffix get lexicalised as a prepound, for example *bengyirri* 'listen out for, pay attention', etymologically *beng(h)* 'attention, hearing, intellect' plus *yi* 'instrumental/comitative' incorporated into *di* 'stand' (i.e. 'stand with one's attention'), and the various locative-type prepounds that include genitive *-ken*, such as *neykenyo* 'lie propped up on elbow', *neykendi* 'stand propped up' (cf. *kun-ney* 'elbow'), *dahkendi* 'be inside a container', *dahkendo* 'place inside a container' (8.64). As noted in §8.2.1.2, in Dalabon the genitive is productively added to incorporated locations, but in Bininj Gun-wok its use in this construction is not productive.

8.64   *Djurra   kururrk   ɸ-dahkendo-y.*
I   book   inside   3/3P-put.inside-PP
        'He put the book inside (the bag).'

8.2.2 Denominal verb structures

There are around half a dozen suffixes forming verbs from nouns or adjectives. The exact number depends on where one draws the line between denominalising suffixes and roots incorporating nouns with idiosyncratic semantic effects. There are also one-off combinations like *bulu-bebme* [old.man-emerge] 'turn into an old man', which cannot be considered regular noun incorporation (since *bulu* is not elsewhere attested as an incorporated root), nor as a regular denominal verb (since *bebme* does not regularly give new verbs through combination with nominal roots).

8.2.2.1 INTRansitive -men

From adjective (and more rarely noun) roots this derives intransitive verbs meaning 'become Adj/N', as in *kimukmen* 'become big' (cf. the adjective-*kimuk* 'big'), *dalehmen* 'get dry (e.g. hides, grass)' (cf. the noun *dalehno* (I) 'dried plant matter', *gun-daleh* (MM) 'firestick'). This is the sole member of Conjugation 11.

8.2.2.2 FACtitive -wo

This thematic, whose basic meaning is 'give' when used as an independent root, can derive denominal transitive verbs, usually from noun+adjective compounds, with the meaning 'make N ADJ', 'endow with Ns that are ADJ', make 'ADJ Ns', 'make (a) ADJ N'. (See 8.28–8.30 for further examples.)

8.65	*Ga-wok-gimuk-wo-n.*
Dj	3-noise-big-FAC-NP
	'It makes a loud noise.'

The verb *yimerran* 'turn into' has a middle form that uses the reflexive of the factitive, *yimeworren* 'turn oneself into'.

8.66	*An-ege*	*ba-yim-i*	*na-wárre-ni*	*na-mege,*	*na-marnde*	*Daddubbe,*
W	VEG-that	3-do-PI	MA-bad-P	MA-DEM	I-that	devil

ba-ngei-yo-i   mimih   ba-yimewo-rre-ni.
3P-name-lie-PI   mimih   3P-turn.oneself-RR-PI
'That would be the evil work of that, that devil called Daddubbe, it would have turned itself into a *mimih*.'

8.2.2.3 INCHoative -da ~ -rra

(The *d*-initial variant is found after stops, and the *rr*-initial variant after vowels.) This root, whose corresponding independent root *da* means 'stand; reach a standstill' when used independently, is occasionally used as an inchoative, deriving expressions of the form 'become ADJ', as in *djokkorranj* 'became tight' (where *djokko* 'tight' is an adjective root) or *kelkdanj* 'it became soft (e.g. pasta)'. See 8.27 for a sentence example.

8.2.2.4 TRansitiviser -(h)me

(The glottal stop is only found in case where the nominal root does not itself end in a stop.[11])

McKay (1975:39) notes a formally similar suffix, *-hminj*, in Rembarrnga, with a range of causative-type meanings, and contrasting with an inchoative suffix *-minj*. A causative denominal suffix *-hmi* is also found in Warray (see example in Harvey 1995:127).

This suffix has a number of functions. Although transitiviser is a useful overall gloss, it is not completely accurate, since a few verbs in -*(h)me* are in fact intransitive (see below).

CALL [KIN] From a kin term K this derives a verb meaning 'call OBJ K'.[12] These verbs are particularly common when discussing kin relationships with respect to subsection terms. The *-me* is found after stop-final terms, the *-hme* form elsewhere: see *gogokme* 'call OBJ *gogok* (older brother)', *djagerrhme* 'call OBJ *djagerrh* (younger brother)' (8.24). Any noun class markers in the kin term are retained, as with the II-class *ngal-* of *ngalgurrng* 'mother-in-law' in 8.67, and the IV-class *gun-* of *gun-doi* in 8.68.

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11   McKay (1975:39) notes a formally similar suffix, *-hminj*, in Rembarrnga, with a range of causative-type meanings, and contrasting with an inchoative suffix *-minj*.

12   See Evans (2000) for a survey of kinship verbs in several other North Australian languages.

8.67   *Gabi-ngal-gurrng-hme.*
Dj   3/3h-II-WM/DH-TRS:NP
'He calls her mother-in-law (*ngal-gurrng*).'

8.68   *Arr-gun-doi-hme   Nabangardi,   Nagodjok.*
Dj   1a-IV-WF-TRS:NP   [clan]   [clan]
'We call Nabangardi and Nagodjok men father-in-law (*gun-doi*).'

Given that the address forms of many kin terms are formed by adding *h* to the kin reference terms (e.g. *ngalgurrngh* is the vocative of *ngalgurrng*) it might be argued that the 'call by' verbs are formed simply by adding *-me* to the address form. However, this explanation would not be valid for all cases. The address form of *garrard* 'mother' is *garrang*, without final glottal stop, yet the verb meaning 'call OBJ mother' is *garranghme*, not *garrangme* which would be generated by adding *me* to the address form.

The 'call K' construction cannot be used with verbal kin terms like *ngarri-danginj* 'we are siblings'; instead a periphrastic construction like 8.69 is used:

8.69   *Ngaben-yime   ngarri-danginj   nakka.*
I   1/3pl-callNP   1a-standPP   MA:that
'I call him sibling.'

More generally, an alternative idiomatic construction with *melme* (basic meaning: touch with foot, kick, stomp) plus the relevant kin term is available in Kuninjku:

8.70   *Ngaleng   korlonj   ngun-melme.*
I   she   (woman's)child   3/2-touch.with.footNP
'She calls you "son".'

TRANSITIVISATION OF NON-VERBAL PREDICATE There around half a dozen examples of this use. A clear example is the predicate adjective *kele*, which can form the intransitive verb *kelemen* 'become afraid' by the addition of the intransitive verbaliser *-men* (see §8.2.2.1 above), but can also form the transitive verb *kelehme* 'cause to be afraid, frighten away':

8.71   *Gukku   gabarri-bo-djare,   Nangarridj   bayun yiban-gelehme!*
Dj   water   3a/3-liquid-wantNP   Nangarridj   don't   2/3pl-frightenIMP
'They (birds) want to drink, don't frighten them away, Nangarridj!'

Further examples (all from Garde's Kuninjku dictionary) are *kudji-hme* 'put in place forever' (√*kudji* 'one'), Kuninjku *kuyenghme* 'extend time, make someone wait for a long time' (√*kuyeng* 'long'), and Kuninjku *karnhme* 'make narrow, thing' (cf. √*karnkarn* 'thin, skinny').

Slightly less clear semantically is the Kuninjku verb *yurrhkuhme* 'misunderstand', as in *kabirriwokyurrhkuhmen* 'she misunderstands (what was said)'; *yurrhku* 'wrong, mistaken' occurs in compounds like *kukyurrhku* 'in the wrong position (e.g. in the wrong queue)'.

ADAPTATION OF LOAN VERBS FROM ENGLISH/KRIOL The suffix appears on a number of loan words of English origin, typically mediated through the English-based pidgin/creole (Kriol) spoken widely in the Top End. In many cases the Kriol form of the word already has a final *-im/-am*, serving as a transitivity marker ultimately derived from English *him*, and this *m* ends up as part of the verbalising suffix, as in *bayahme* 'buy', from Kriol *bayim* or *bayam*, *dajihme* 'touch, interfere with' from Kriol *dajim* (< Eng. *touch'im*), and *djoldihme* 'salt (e.g. buffalo hides)' (Dj) from Kriol *joldim* (< Eng. *salt'im*). All these function as transitive verbs, like their Kriol and English counterparts.

In some cases, however, the suffix is applied to a verb that is intransitive in both English and Kriol. Thus in Gun-Djeihmi the word for 'work' is *wogihme* or *wokgihme*, while in Manyallaluk Mayali the variant is *worrgimhme* (in Kunwinjku and Kune it is an indigenous word, *durrkmirri*). At this stage of research it is not clear whether this is a transitive verb or not in Gun-djeihmi: certainly phrases like *wokgihme nganabbarru* [work buffalo] 'work with buffalo, work in the buffalo industry' could plausibly be analysable as containing transitive verbs, but it is also possible that *nganabbarru* here is functioning as a purpose phrase with zero case marking (§13.5). A clearer case is Manyallaluk Mayali *bornhme* 'be born', from English *born*, intransitive also in Kriol ('I bin born').

NONCE DERIVATIONS   There are also a few indigenous words in which *-hme* applies to what appear to be ideophones, resulting in a transitive verb, for example I *bid-deyhme* [finger-*deyh*-TRS] 'click trigger of gun into place' (cf. *deyhbun* 'crush (e.g. louse) under one's finger').

Occasionally this suffix is used to derive what appear to be on-the-spot formations, taking a whole phrase as input:

8.72   *Nga-kak-boken-hme.*
I   1-night-two-TRS.NP
         'I'll go for two nights.'

8.2.3 Membership of conjugation classes

As mentioned in §8.2.1, the thematics of the verb stem can be grouped into a number of conjugation classes, each with their own distinct patterning of TAM allomorphy. The full paradigm of TAM inflections will be given in §9.2, but the membership of conjugation classes will be discussed here, since it is more relevant to the study of stem structure than to the tense/aspect/mood system. The main emphasis in this section is on exemplifying the groupings of verbs built up from each thematic. Because of the huge number of verbs in the language, these listings are intended to be representative rather than exhaustive. The semantics of the prepound+theme combination is often only tenuously related to that of the theme when used alone, and I do not attempt to analyse the relation between root and thematic semantics here.

8.2.3.1 Conjugation 1: -me verbs [= Carroll 1, Oates 1A]

This contains a number of basic verbs whose pre-theme is unanalysable. Most but not all are intransitive and many intransitive *-me* verbs have corresponding transitive verbs in -*ke*. Examples are given in Table 8.6.

Most of the transitive members of the conjugation have cognates (usually in *ma* rather than *me*) in other Gunwinjguan languages and beyond (e.g. *karrme* 'get, have', reflexed by Kayardild *karrma-tha* 'have, keep, hold', *nome* 'smell' reflexed by Jawoyn *noma* 'smell (tr.)', Mangarayi *numa-* 'smell (tr.)' and Gupapuyngu *nhuman* 'smell, sniff around'). It is therefore likely they go back as disyllabic roots to a considerable time depth. These verbs may take their own prepounds, and the resultant derivatives are also often transitive (e.g. *doname* 'fold up'). On the other hand, *-me* is also widespread in Australian languages as a predominantly intransitive denominal verbaliser (see Alpher, Evans & Harvey forthcoming for details).

Table 8.6: Some intransitive *(-me)* verbs of the 1st conjugation

Verb	Gloss	Corresponding transitive verbs in *-ke*:	
bame	'shine'	–	
balme	'overflow'	–	
dokme	'lead off, go ahead'	–	
dokorrokme	'walk quickly' (redup. from *dokme*)	–	
lobme	'run'	–	
bakme	'break (intr.)'	*bakke*	'break (tr.)'
dadakme	'go aground'	*dadakke*	'run aground (tr.)'
djobme (W,Dj)	'cease, be cut off'	*djobke*	'cut (tr.)'
dadjme (I, E)	'cease, be cut off'	*dadjke*	'cut (tr.)'
djuhme	'bathe (intr.), bogey'	*djuhke*	'immerse, make wet'
warrhme	'drop (intr.), get lost'	*warrhke*	'drop, lose'
wayhme	'ascend, come up'	*wayhke*	'raise, lift'
yarlarrme	'separate (intr.)'	*yarlarrke*	'separate (tr.)'
yibme	'sink (intr.)'	*yibke*	'sink (tr.)'

The second main group of transitive verbs in this conjugation are denominal verbs in *-hme*, mostly transitive (§8.2.2.4). Again, this form aligns with transitive/causative verbs in other Gunwinyguan languages like Warray and Rembarrnga.

Finally, there are a few other transitive *-me* verbs: *bedme* 'fall on; crush', *belbme* 'stick to, adhere to' and *bengngukme* 'forget'.

Within the Kun-kurrng respect register (§15.2), the commonest verb formative is *-bonghme*, which belongs to the *-me* conjugation. The association between this conjugation and intransitivity disappears in the Kunkurrng register, and verbs in *bonghme* are evenly divided between intransitives, like *njolobonghme* 'sing' (o.l. *wayini*) and *njarlbonghme* 'dance in a particular style' (o.l. *njarlme*), and transitives, like *walebonghme* 'hunt' (o.l. *warlbu*) and *ngarnarrbonghme* 'swear at, curse, scold' (o.l. *du*).

8.2.3.2 Conjugation 2: -ke *and* we verbs, plus kinje *and* baye [= Carroll 2, Oates 1B]

There is only one verb each in *-ye* and *-nje*, but each is an old root reconstructable beyond Proto Gunwinyguan: *baye* 'bite' and *kinje* 'cook'. An irregular verb within this conjugation, also going back beyond Proto Gunwinyguan, is *dowe* 'die' and its derivatives such as *marridowe* 'be hungry' and *kombukdowe* 'be thirsty'.

Table 8.7: Some *-ke* verbs of the 2nd conjugation

Verb	Gloss	Verb	Gloss
bakke *	'break (tr.)'	*lidjke*	'pinch'
bolkke	'drop an article' [Oates 1964]	*ngalge*	'find'
dadjke (W,I, E)*	'cut, chop'	*njirrke*	'hate' (W)
djobke (Dj, W)*	'cut, chop'	*wayhke* *	'raise, lift'
*djuhke**	'bathe (tr.), immerse, make wet'	*yarlarrke**	'separate (tr.)'

Most *-ke* verbs in this conjugation are transitive verbs, many opposed to intransitives in *-me* (see Table 8.6; such verbs are marked here with an asterisk).

Occasionally *me/ke* pairs exist in Kun-kurrng, corresponding to semantic pairings that in the ordinary register are expressed by distinct lexical stems (e.g. o.l. *rung* 'burn, cook (intr.)', k.k. *bobekme, kinje* 'burn, cook (tr.)', k.k. *bobekke)*.

The few intransitive verbs in this conjugation are either derived from ideophones (§8.2.1.3), as with *borrhke* 'dance" or *dowkke* 'go off (of a gun), go *dowk!*', or verbs involving a sudden apparition, such as *mayhke* 'flash (esp. lightning' (note that *mayh* on its own means 'animal, rainbow snake') and *marduhke* 'flash'.

Table 8.8: Some *-we* verbs of the 2nd conjugation

Verb	Gloss
burriwe	'throw'
kowe	'tell a lie'
mun.gewe	'send, release'
djangwe	'throw handfuls of stones from green plum dreaming (*djang*), to cause increase in green plums'(MM)

The verb *we-* 'throw', which can form causatives such as *djordmihwe* 'grow up, bring up (tr.), raise' from *djordme* 'grow up, develop' by incorporating intransitive verbs (see §12.2), also has several derivatives involving nonce prepounds.

8.2.3.3 Conjugation 3: verbs in -ka, -na, -wo and -ngu [= Carroll 3, Oates 2A(i)]

Each of these can function as an independent verb: *kan*[13] means 'take, carry', *nan* means 'see', *won* 'give' and *ngun* 'eat'. Each can also serve as thematic in complex verbs, and *wo* also forms denominal factitives (§8.2.2.2). All have such widespread cognates in Australia that is likely they will be reconstructable to Proto Australian. *ngu-* is slightly irregular within this conjugation, adding a second syllable in the past perfective: compare NP *nan*, PP *nang* but NP *ngun*, PP *nguneng*.

Examples of complex stems involving each of these as thematics are given in Table 8.9.

Table 8.9: Some 3rd conjugation complex stems

Thematic *-ka*		Thematic *-na*	
dolkan	'rise up, stand up'	*nan*	'see'
djangkan	'go hunting'	*bolknan*	'look around'
djurrkkan	'put pressure on (someone)'	*dordnan*	'delouse'
mankan	'fall'	*widnan*	'hate'
ngolekan	'wait'	*wohnan*	'keep watch, look after'
ngomkan	'swim along'	*burrknan*	'recognise'
ngorrkan	'carry on shoulders'	*bimburrknan*	'read' [Oates 1964]
warlkkan	'hide'		
yerrkan	'sit down'		
yikan	'fetch'		
bekkan	'listen, feel'		
bukkan	'show'		

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13 This and other verbs with non-zero non-past forms will be cited in their nonpast form; thus *kan* 'carry' rather than *ka*.

Thematic -*wo*		Thematic -*ngu*	
won	'give'	*ngun*	'eat'
bawon	'leave'	*kolkngun*	'drink' (I, E, MM)
belewon	'make white, clean'	*bongun*	'drink' (Dj, W, Dnj)
kawon	'run away in fright (animal)'	*balhngun*	'sodomise, fuck'
woybukwon	'tell OBJ the truth'		
warrewon	'make a mistake'		
yakwon	'finish'		

8.2.3.4 Conjugation 4: verbs in bu *and* wa [=Carroll 4, Oates 2A(ii)]

This includes the verb *bun* 'hit' and a large set of verbs with *bu* as thematic, as well as verbs with -*wa* as thematic.[14] The two groups of verbs differ slightly in the past perfective, where *bu* and its derivatives have *bom* instead of the expected *bum*.

As discussed in §8.2, the root *wa* probably meant 'follow' originally, but has lost its independent status in Bininj Gun-wok, except as the past perfective form of the suppletive verb 'go' (9th conjugation).

Although *bun* itself is transitive, some of its derivatives (e.g. *kobun* or *nguybun*, both 'break into flower') are not.

Table 8.10: Some 4th conjugation complex stems

Thematic -*bu*				Thematic -*wa*	
bun	'hit, kill'	*djongbun*	'dress, put (clothes) on'	*djawan*	'ask'
berrebbun	'promise'	*kobun*	'flower, come into flower' (E, MM)	*kuwan*	'sit and warm oneself by fire'
bidbun	'climb up, ascend'	*madbun*	'wait for'	*mulewan*	'inform, report, tell about someone'
boyakbun	'pour water'	*marnbun*	'make, prepare'	*wakwan*	'not know, be ignorant of'
bunbun	'stop'	*ngeybun*	'say the name of, name'	*yawan*	'seek, look for'
danjbun	'spear'	*nguybun*	'flower' (Dj, W, I)	*yakwan*	'eat, consume' (k.k.)
dilebun	'piss'	*wabun*	'call out name of something with magical effect'		
dulubun	'shoot'				
djirridjbun	'wash (tr.)'	*warlbun*	'hunt'		

8.2.3.5 Conjugation 5: verbs in du, ru, -lu, -dju *and* -do; -de *and* -dje; *and* ma [= Carroll 5, Oates 2B(i) & 2B(ii)]

A higher than usual proportion of the thematics in this conjugation cannot function as independent roots; -*de* and -*dje* on the one hand, and *ma* on the other, make up two slightly different sub-conjugations. Again, the subconjugational difference is confined to the past

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14   At least one disyllabic verb with *wa* as thematic is a non-Gunwinyguan cognate for the full disyllable: note *kuwa-n* 'sit and warm oneself by the fire', Kayardild *kuwa-tha* 'keep oneself warm, warm oneself'.

perfective, and is caused by the different effects of the PP-marking suffix *-y* on the preceding vowel: it leaves back vowels unchanged (*duy, ruy, luy, doy*), raises the low vowel (*mey* instead of expected *may*) and raises the *e* vowel (*di* and *dji* instead of expected *dey* and *djey*).

Conjugation 5a includes the verb *dung* 'abuse, swear at, curse'[15] and verbs with it as thematic; *ru* 'burn (intr.)' and verbs with it as thematic, verbs with thematic *-lu* and *-dju*, and the verb *dong* 'strike' and verbs with it as thematic (Dj, W *dedjo* probably results from a cluster simplification of *dedjdong*; see §3.2.3).

Table 8.11: Some verbs of conjugation 5a

Verb	Gloss	Verb	Gloss
dung	'abuse, growl'	*kadjung*	'follow; ache'
djakdung	'rain'	*dong*	'strike, hit with a missile'
yiddung	'quarrel, get wild'	*dahkendong*	'put in a container'
rung	'burn'		(cf. *-dahkendi* 'be inside')
karung	'dig'	*djorndong*	'pound'
kolung	'go down'	*dedjong* (Dj, W)	'fuck'
djirrmikolung	'swoop down'	*dedjdong* (I)	'fuck'

(5b) includes verbs with thematics *-de* and *-dje*:

Table 8.12: Some verbs of conjugation 5b

Thematic *-de*		Thematic *-dje*	
bolkmaddeng	'stay in one place, stay behind'	*borrhborrdjeng*	'shake off, shake down'
durndeng	'return'	*badjdjeng*	'hit, punch'
ngukdeng	'defecate'	*ngadjeng*	'strike, hit'

(5c) includes the verb *mang* 'get' and its derivatives:

Table 8.13: Some verbs of conjugation 5c

Verb	Gloss	Verb	Gloss
mang	'get'	*djirdmang*	'steal, pinch'
bolkmang	'arrive at a place, reach land (from sea)'	*kardmang*	'catch on hook; snag'
bunjhmang	'kiss'	*larlmang*	'divide up'
durrkmang	'pull, jerk'	*romang*	'dodge'
djalkmang	'split'	*yawmang*	'conceive; bear a child'

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15   Again, this has widespread non-Gunwinyguan cognates, e.g. Kayardild *thuu-ja* 'swear at, curse', Ndjebbana *djo-* 'be angry with, berate', Burarra *jo-* 'scold, complain about'.

8.2.3.6   Conjugation 6: verbs in da [= Carroll 6, Oates 3A]

This includes the root *da* 'stand' (6a), which has two sets of forms depending on whether a stative or inchoative meaning is expressed (§9.3.7), various stems based on *da* (6b), and denominal inchoatives in *rra* (6c). These subconjugations differ slightly in their past perfective and non-past forms; for those in 6c, the perfective vs imperfective contrast is neutralised in favour of the imperfective form (used with perfective meaning, as in 8.67). This probably results from the partial conflation of two formerly independent paradigms (those for *da* 'stand', and *-da* 'become') which in Proto Gunwinyguan were more distinct; see Alpher, Evans and Harvey (forthcoming).

Table 8.14: Some verbs of conjugation 6 (a,b,c)

6a		6b		6c	
dangen	'stand up, stop'	*meddan*	'turn around, look around'	*yimerran*	'turn into'
gotjmadangen (MM)	'be born'	*ngokdan*	'become night'	*djokkorra*	'become tight'
nguydangen	'stand in flower (e.g. spear-grass)'	*waydan*	'be raised'	*kelkda*	'become soft'
		barledan	'become crooked'	*belngdan*	'settle, subside, go down (tyre)'

8.73   *Ba-bo-belngda-nj.*
Dj   3P-liquid-settle-PP
        'The mud in the water has settled.'

8.2.3.7   Conjugation 7: verbs in di, -rri and ni [= Carroll 7, Oates 3A]

This conjugation includes the root *-di* 'stand, be standing' and its derivatives (which flap to *-rri* if the prepound ends in a vowel, e.g. *bengyirri, durrkmirri*[16]), plus the root *-ni* 'sit' and its derivatives. Almost all the derivatives are intransitive like their bases, but MM *moh-rdi* 'wound (tr.)', lit. wound-stand, is an exception.

A set of forms that hybridise this conjugation and 6a are the inflected forms of the persistive (7b), such as *djuhmiyindi* 'to soak' (see §9.3.6).

A slightly irregular verb in this set is *wokdi* 'speak'; the form *-wokdanj* is used suppletively as the past perfective of the seventh conjugation verb *wokdi* 'speak', often with the sense 'spoke up, started to talk'; other forms of this verb are not attested but it appears to have undergone the same generalisation of the imperfective form to the perfective.

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[16]   Evidence that *durrkmirri* is underlyingly %*durrkmi-di*% comes from the k.k. equivalent *durrkmidjarrberlme*; *djarrberlme* is the k.k. equivalent of *di*. Note also that in Kune, *dirri* is the iterative reduplication of *didi*, as opposed to the form *dingihdi* found in the other dialects (see §9.4.2).

Table 8.15: Some verbs of the 7th conjugation

Root *-di* 'stand'				Root *-ni* 'sit'	
di	'stand'	*wokdi*	'talk, speak'	*ni*	'sit'
bangdi	'be strong flavoured (e.g. chillies)'	*bengyirri*	'listen, pay attention'	*wayini*	'sing'
bengdi	'sit waiting for word, or for something to happen'	*dirri*	'play'	*yengkihni*	'be wet'
bimdi	'be a painting, exist (of a painting)'	*durrkmirri* (W, I)	'work'		
dahkendi	'be inside something (e.g. bed, canoe)'	*mirrhdi*	'be sharp, spiky'		
djangdi	'be a dreaming site'	*mohrdi* (MM)	'wound (v.t.)'		

8.2.3.8 Conjugation 8: verbs in yo [= Carroll 8, Oates 3B]

This conjugation is made up of the root *yo* 'lie' and its derivatives. All are intransitive.

Table 8.16: Some verbs of the 8th conjugation

Verb	Gloss	Verb	Gloss
yo	'lie'	*keyo,*	'sleep'
boyboyyo, boboyo	'lie flat on one's stomach, lie prone'	*kodjkeyo* (Dj) *kodjdjeyo* (I)	'sleep'
bukirriyo, kodjbukirriyo	'dream'	*lambarriyo*	'lie on one's back'
	'dream'	*yirriyo*	'stretch (the body)'

8.2.3.9 Conjugation 9: the verb re and its derivatives [= Carroll 9, Oates 4]

This is a suppletive verb whose paradigm historically conflates the root *wa*, originally 'follow' (see 4b) and the root *re*. This conjugation includes a large class of verbs based on *re*, and the open class of associated motion structures with incorporated verbs.

Table 8.17: Some verbs of the 9th conjugation

Verb	Gloss	Verb	Gloss
re	'go'	*djalkmire*	'tear'
bore	'flow out, issue forth'	*wohre*	'go on foot (most dialects), go' (MM)
bukirrire	'dream'	*wuyukmire*	'be tired' [Oates 1964]

8.2.3.10 Conjugation 10: reflexive/reciprocal -rre [= Carroll 9, Oates 4]

This is a derived conjugation in the sense that almost all of its members are derived from other stems by adding *-rre* to the stem, giving a meaning of reciprocal/reciprocal (when added to transitive roots) or collective (predominantly with intransitive roots). (See §10.3.4 for discussion of the reflexive/reciprocal and §11.3.1.2 on the collective.) Incidentally, the

-rre suffix is the only verbal suffix that always follows, exactly, the root; all other verbal suffixes perturb the root in at least one conjugation.

A small number of verbs in this conjugation, however, have no corresponding underived form; an example is *kurren* 'lie, deceive', which lacks a corresponding root **ku*.   In addition, the meanings of some verbs in *-rre* have become somewhat idiomatised (e.g. *burren*, lit. 'hit each other', for 'fight', and *marren*, lit. 'take each other', for 'get married'); *dangwerre* is an intermediate case: it can readily be broken into *dang* 'mouth' plus *we* 'throw', but the straightforward transitive use of the basic root *dangwe* is so far unattested.

Table 8.18: Some verbs of the 10th conjugation

Verb	Gloss	Verb	Gloss
burre	'fight each other' (< *bu* 'hit, kill')	*kurre*	'deceive, trick'
dangwerre	'argue with each other' [Oates 1964]	*lirrhmerre*	'scratch oneself'
durre	'growl each other, abuse one another' (< *du* 'curse')		

8.2.3.11 Conjugation 11: verbs in -men [= Carroll 12, Oates 6A, 6B]

This conjugation, which is completely open, contains:

(a)   The productive class of denominal inchoative verbs, such as in Table 8.19.

(b)   Certain verbs of becoming, whose prepound does not occur independently:

> *djordmen*   'grow up (living being), mature'

(c)   Various other verbs of sensation etc.:

> *djalarrkmen*   'be angry' [Oates 1964]
> *kelemen*   'be afraid'
> *worrkmen*   'be full of food' [Oates 1964]

(d)   Many English loans with inchoative, predicative or adverbial semantics; *-men* is added to the borrowed English form:

> *bulmurnmen* (MM)   'become/be full moon' (< Kriol *bulmurn* < Eng. *full moon*)

8.74   *Ngarri-djen-quickone-men.*
E:N   1a-tongue-quick.one-NP
        'We talk quickly (in our dialect).'

Table 8.19: Some verbs of the 11th conjugation

Verb	Gloss	Verb	Gloss
badjanmen (E:D)	'get big' (*-badjan* 'big')	*karemen*	'get old' (*-kare* 'old')
bukmen	'dry up, get dry esp. of country' (pred.adj. *buk* 'dry')	*kimukmen* (Dj,W,I)	'get big' (*-kimuk* 'big')
dalehmen	'get dry (e.g. hides)' (I *dalehno* 'dried plant matter', MM *gun-daleh* 'firestick')	*makmen*	'become good' (*-mak* 'good')
		warremen	'go bad' (*-warre* 'bad')

8.2.3.12 *Non-verbal conjugation*

This is a set of endings, as opposed to a conjugation proper, since it is not affiliated with a class definable on anything but negative grounds. These endings are attached to non-verbal predicates, for example predicate adjectives, nouns used as predicates, and time adverbs whose temporal location is being stressed. Note that there is no imperative form. Except for their present endings, these are formally identical to the verb *ni* 'sit':

8.75a.   *ø-babang-ni.*   b.   *Bene-rohrouk-ni.*
W   3P-be.sore-PI   3uaP-similar-PI
        '(S)he was sore, in pain.'   'The two of them were alike.'

     c.   *ø-Djare-ni.*
         3P-want-PI
         '(S)he wanted (it).' (cf. *kun-djare* 'desire')

8.3 Verb morphology versus predicate morphology

A certain amount of what we have been calling verbal morphology in this chapter should more accurately be designated 'predicate morphology', since it can be applied to other parts of speech when they function as predicates. This section summarises these possibilities.

Most similar to verbs are predicate adjectives like *gele* 'afraid', *babang* 'in pain' and *rohrok* 'similar, same' which normally take intransitive pronominal prefixes, and inflect for a subset of TAM inflections (the past imperfective, and irrealis); *babang* and *rohrok* may incorporate nouns as well.

Other adjectives have a choice between pronominal prefixes and gender prefixes, according to the syntactic context. The adjective root *mak* 'good', for example, will always take a gender prefix when functioning as an attributive adjective within a noun phrase (e.g. *daluk ngalmak* 'good or beautiful woman'); when functioning as a predicate it can take either a pronominal prefix or a gender prefix according to what it is describing: *kamak* 'it's good, it's OK' (the situation in general), *namak* 'he's good/handsome', *ngalmak* 'she's good/beautiful'. But note that to say 'are you OK, is that OK with you' one says *ngudda kamak* [you 3-good] rather than **yimak* [2-good], since the 'good' is predicable of the general situation in which you are participating, rather than of you as an individual.

8.3.1 *Pronominal prefixes*

Adjectives and life-stage nouns, when used as predicates, can take intransitive pronominal prefixes. In 8.76 the noun *bodme-marrumarru* 'person who is continually engaged in a particular action or task' is used as a nominal predicate, and takes a first person minimal subject prefix. Similar prefixation applies to the adjectives *darrgid* 'alive' (8.77) and *mak* 'good' (8.78). As the second example shows, a free pronoun may be used at the same time. (In 13.32, *wurdurd* 'child' is prefixed with the third person minimal prefix when used as a predicate, with the meaning 'is a sapling'.)

8.76   *Nga-bodmemarrumarru   dolobbo   nga-bimbun.*
I   1-person.always.engaged   bark.painting   1-paintNP
         'I've been continually doing bark paintings all the time.'

8.77   *Nga-rrarrkid.*
E:D   1-alive
    'I'm alive.'

8.78   *Ngayih   nga-mak.*
E:D   I   1-good
    'I'm healthy.'

Note that compounds count as adjectives for the purposes of the above formulation, regularly taking pronominal prefixation:

8.79   *Yi-keb-mak.*
I   2-face-good
    'You are good-looking.'

Pronominal prefixes, when used on non-verbs, have a slightly different use of the past vs non-past contrast found on third person forms (this is discussed in §10.2.1).

Prefixes from the transitive pronominal set are never used on non-verbs, except in connection with benefactive *marne-* (§8.3.3).

8.3.2 Noun incorporation

Predicate adjectives like *rohrok* 'same, similar', *gih* 'wet' and *babang* 'painful', regularly incorporate nominals.

8.80   *Ga-bolk-rohrok.*
Dj   3-place-alike
    'It's a similar place.'

8.81   *Gu-gak   ba-yerrng-gih-ni.*
Dj   LOC-night   3P-wood-wet-P
    'Last night the firewood was wet.'

These are clear cases of noun incorporation since the relevant adjectives can only function as predicates, and do not compound with noun roots to form nominal compounds. With other adjectives, on the other hand, which participate in productive compounding constructions (§5.4) with the same set of nominal roots as get incorporated, the appearance of a noun root followed by the adjective root is not in itself proof of incorporation, since a simpler analysis is that a noun–adjective compound has first been formed, then used as a nominal predicate in the way any noun phrase can be.

8.82   *Yi-berd-kimuk!*
I   2-prick-big
    'You've got a big prick!' (Joking register)

However, when the subject is third person minimal it is possible to distinguish the two constructions, since predicate adjectives with incorporated roots take the third person pronominal prefix *ga-/ka-*, while attributive compounds take the relevant gender prefix (§13.3.1). In 8.83, for example, the adjective *bang* 'cheeky, dangerous', which normally takes gender prefixes, is here being used as a predicate adjective with an incorporated nominal, as shown by its employment of the prefix *ga-*:

8.83   *Garrarndalk   ga-yiwk-bang.*
MM   [grass.sp.]   3-honey-cheeky
      'Kerosene grass (*heteropogon triticeus*) has cheeky (chilli-tasting) honey.'

A couple of noun roots may also be used as predicate adjectives: √*banj* 'smell (n.)', may be used as a predicative adjective with the sense 'smelly', and √*merlem* 'belly' may be used as a predicative adjective with the sense 'pregnant'.

8.84   *Ka-budjdji-banj.*
MM   3-stinking-stink
      'It smells no good.'

8.3.3 Use of the benefactive

Rarely, a predicate adjective occurs with the benefactive applicative:

8.85   *Nani   mak yi-na   manimunak   arri-marne-gele.*
Dj   MA:DEM   also 2-seeIMP   magpie.goose 1a-BEN-frightenNP
      'We're also frightened, you see, for the magpie geese.' (that they would be negatively affected by mining.)'

8.86   *Na-ngale   yi-marne-wok-yak?*
I   I-who   2-BEN-language-PRIV
      'Who are you in a silence relationship with?'

A lexicalised predicate adjective with the benefactive is *marne-worrhworr* 'orphan' (e.g. *na-marne-worrhworr* 'boy orphan', Dj *bani-marne-worrhworrh* 'pair of orphans').

8.3.4 Use of adverbial-type affixes

Some predominantly verbal affixes of quantification and intensification such as *wernh-* 'properly', *bal-* 'away' and *djal-* 'only', may also be used before adjectives, as in *na-wernh-kimuk* [MA-properly-big] 'really big', *na-balh-kih-kimuk* [MA-away-INCEP-big] 'really really big' and *na-djal-gudji* [MA-just-one] 'just one'. Note that in these constructions the adjective is normally prefixed with the gender prefixes, rather than the third person pronominal series, though non-singular pronominal prefixes are not ungrammatical, as exemplified by *birri-djal-kudji* [3a-just-one] 'they were all alone'. Some sentence examples are:

8.87   *Al-djal-gudji ba-mirnde-bimbu-ni   gun-gurlah.*
Dj   FE-just-one   3P-many-paint-PI   IV-hide
      'Just the one woman by herself marked all the buffalo hides.'

8.88   *Yiman   birri-kodj-yime-ng   na-wern   rerrih   bininj,*
E:D   like   3aP-head-do-PP   MA-many   behind   person

      but   nungkah na-djal-kudjih-kudji ∅-ngudj-bebme-ng.
            he   MA-just-REDUP-one   3P-speed-emerge-PP
      'Everyone thought that there were lots of people there, but there was just him on his own doing it all.'

8.89   *Kun-wernh-waleng.*
I   IV-properly-south
        'It's a long way south.'

8.3.5 Use of tense

Of the five tense/aspect/mood categories available to verbs (imperative, non-past, past perfective, past imperfective and irrealis), the past imperfective (8.90–8.92) and irrealis (8.96) may be marked on non-verbal predicates by non-zero morphemes corresponding to the commonest allomorph of these categories used on verbs. Past non-verbal predicates use the suffix *-ni*, which is the commonest allomorph of the past imperfective; this is added directly to the end of the predicate. Interestingly, this form is used in those dialects which have lost the past imperfective category. Because of the lack of contrast with a past perfective category, I gloss this simply P (for past) when it occurs on non-verbal predicates.

Non-verbal predicates that are realis and non-past normally take no overt inflection, though it could of course be argued that they have a zero non-past inflection in the same way as verbs in conjugations 2, 7, 8 and 9 have a zero non-past.

Within the overall nominal class, the use of tense suffixation is commonest with adjectives (8.90, 8.91), but also found with nouns taking the privative (8.92).

8.90   *Yiga   barri-gak-re-y   barri-gele-ni.*
Dj   sometimes   3aP-night-go-PI   3aP-afraid-P
        'Sometimes they went by night and were afraid.'

8.91   *Ba-gudjeuk-warre-ni.*
Dj   3P-rainy.season-bad-P
        'It was a bad wet season.'

8.92   *Ba-gukku-yak-ni.*
Dj   3P-water-PRIV-P
        'There was no water.'

It is also found on time adverbs (8.93; other lexicalised examples are Dj *wolewolehni* 'yesterday' and *wolewolehbuyigahni* 'the day before yesterday'), possessive pronouns (8.94, 7.32) and nouns denoting life stages (8.95) and body parts (8.96):

8.93   *Bedda   an-marne-yakwo-ng, gu-wak-ni   card arri-dirrinj.*
Dj   they   3/1-BEN-finish.up-PP LOC-night-P card 1a-playPP
        'They cleaned me out (of money) when we played cards last night.'

8.94   *Na-yik-Badmardi,   bu   nuye-ni   gun-red.*
Dj   MA-late-Badmardi   REL   his-P   IV-country
        'The late Nabadmardi, it used to be his country (when he was alive).'

8.95   *An-bukka-bukka-ng   ngadberre, na-wu   gunj   ngarri-yam-i, and na-wu*
Dj   3/1a-ITER-show-PP   us   MA-REL   kangaroo 1a/3-spear-PI MA-REL

        maih   arri-bu-ni   barri-bu-ni bedda   dabbarrabbolk gorrogo, ngaye
        animal   1a/3-kill-PI 3a/3P-kill-PI they   old.people   before   I

> *nga-wurdurd-ni galuk   ngaban-na-ng.*
> 1-child-P   bye.and.bye 1/3pl-see-PP
> 'He taught us how to spear kangaroos, and how to kill animals. (as) the old people used to kill them in the old days, as I would see them as a child.'

8.96 *Yawkyawk bokenh na-wu   bene-berd-djenj-ni, yimankek*
W   young.girl two   MA-REL   3ua-tail-fish-P   CTRFAC

kun-dad-niwirrinj
IV-leg-IRR
'There were two young girls who had tails like fish, they didn't have legs.' (lit. 'there were no legs') [KS 174]

Although the imperative suffix is not attested with nominal predicates, modal particles associated with imperative meanings are:

8.97 *Yuwn   yi-kele!*
W   PROHIB 2-afraid
'Don't be afraid!'

8.3.6 Use of aspectual reduplication

Non-verbal predicates sometimes undergo aspectual reduplication. For an example of iterative reduplication applied to the predicate adjective *banj* 'stinking', see 9.151.

8.3.7 Directional prefixation

Carroll's collection of Kunwinjku texts includes one example in which the 'hither' prefix *m-* is used, along with tense suffixation, with a predicate nominal:

8.98 *Ku-m-bininj-ni bu   kerrngnge-ken.*
W   3P-hither-man-P SUB   new-GEN
'He was a man at first.' [OP 424]

8.3.8 Use of complementising role markers

Rarely, nominal predicates take role suffixes to indicate the relative tense relations between two propositions:

8.99 *Ba-worrkimhm-i   nga-yakki-ni-keno.*
MM   3P-work-PI   1-nothing-PI-when
'(My father) he used to work here before I existed (when I was nothing).'

BININJ GUN-WOK: A PAN-DIALECTAL GRAMMAR OF MAYALI, KUNWINJKU AND KUNE   VOLUME 1

The term Bininj Gun-wok was recently coined to cover a large group of related dialects spoken in Western Arnhem Land, Australia, including Kunwinjku, Mayali, Gun-djeihmi, Kune, and others; many of these dialects have not been described before. Bininj Gun-wok, in turn, belongs to the so-called Gunwinjguan family, the largest family of non-Pama-Nyungan languages. It is one of the few Australian languages still being passed on to children, and in fact the number of speakers is increasing.

This detailed pan-dialectal grammar takes care to set the language in its cultural context throughout, with rich ethnographic discussion of the many special kinship-based speech registers and a sizeable text collection with examples of all major dialects. Bininj Gun-wok is a heavily polysynthetic language, with three productive types of noun incorporation, incorporation of one verb into another, two applicatives, reflexive/reciprocal formation, prefixes representing subject and object/indirect object, and a large number of further adverbial-type prefixes. Within the nominal system, it has four genders in some dialects, reducing to simpler systems in others. A major focus of the grammar is the many problems of how meanings are constructed in a polysynthetic language, and how the many elements of the verbal morphology interact with one another in the composition of grammatical structure.

This volume will be of interest to a wide range of readers: morphologists and syntacticians, Australianists, linguistic anthropologists, dialectologists, typologists, and educationists and others working in Western Arnhem Land.

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