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Evans
A Grammar of Kayardild

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With Historical-Comparative Notes on Tangkic

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Marrija kangka ngakuluwanjina jungarrana dangkana,

karrngijuruya bilwanjuruya ngungukuruya bana birrjilkuruy.

Listen to the words of our old people,
so that we can keep their stories and ways.

Darwin Moodoonuthi

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Preface

The material for this book was gathered during field trips to Mornington and Bentinck Islands in June 1982–January 1983, May–July 1984, October 1985, April–May 1986, September–October 1987, June 1988, August 1989, April and December 1992, September 1994, and during June 1987 when a group of Bentinck Islanders attended a Kayardild literacy course at the School of Australian Linguistics in Batchelor, Northern Territory. Before my first field trip I was able to do some preliminary analysis of Stephen Wurm's 1960 recordings and fieldnotes on Kayardild, and examine the insightful works on the related languages Yukulta (Keen 1972, 1983) and Lardil (Hale 1973, Hale et al 1981; Klokeid 1976).

The project was initiated following a request to Bob Dixon by the Bentinck Island community, who were concerned about the fate of their language and wanted a linguist to record it. Between 1982 and 1985 my research concentrated on Kayardild grammar and text collection, and the grammar in Part I is a substantially revised version of Evans (1985), a dissertation submitted for the degree of Ph.D. at the Australian National University. Subsequently I was able to continue gathering the text and lexical materials contained in Parts II and III of this book, and to revise various parts of the grammar.

Community support for the project was overwhelming, and virtually every Bentinck Islander helped me in some way. Thanks to this, my fieldwork procedure could be quite eclectic. It combined participant observation while hunting, fishing, drinking, "seeing the country" in the the South Wellesleys, reminiscing and gossiping, arguing, attending community meetings, and farewelling people at the airport, with more structured sessions "working on language": gathering and transcribing texts and stories, plodding through paradigms, building up comprehensive word lists, and discussing the meaning and appropriateness of particular constructions heard in spontaneous conversation.

The grammar contained in this book deliberately eschews theory-specific assumptions and formalisms. My many frustrating experiences trying to extract generalizations about a particular language from a grammar, or "fragment" of a grammar, written in the ephemeral garb of a once-fashionable theory, have convinced me that grammars of little-known languages should be presented in as straightforward language as possible, and furnished with a generous set of naturally-occurring example sentences and texts. Only in this way can readers glean enough

to reach their own conclusions about the internal consistency and empirical accuracy of the description. And only when a relatively full informal account of a language's structure and its resources for encoding meaning becomes available can the next step, of more formal modelling, be taken. The present work does no more than indicate the rough direction this might take.

In analysing this highly unusual language I have drawn freely on whatever grammatical tools seemed appropriate, without worrying whether they all came from the same toolkit. A few key terms understood differently by different linguistic schools are discussed in Chapter Three, and pegged to language-specific definitions. Certain new terms necessitated by the novel structure of Kayardild are also introduced there.

Although the analysis I give is self-sufficient synchronically, I have included comparative/historical material from other Tangkic languages in several places, so that the grammar has ended up containing the seeds of a historical-comparative grammar of the Tangkic group. Experience has shown me that the more bizarre features of Kayardild grammar were only accepted by otherwise broad-minded linguists once their less eccentric pedigrees had been established.

Contents

Appendices To Grammar

Part II: Texts

Part III: Dictionary

Abbreviations and conventions

Section references give the main discussion of the relevant gloss.

Language names

K	Kayardild
L	Lardil
Y	Yukulta
Ya	Yangkaal
MIE	Mornington Island English

Sources on other Tangkic languages

DSCD	Hale (1973) 'Deep-surface canonical disparities ...'
DYL	Keen (1972) 'A description of the Yukulta language'
HFN	Hale (unpubl.) 'Field notes on Yangkaal'
TLG	Klokeid (1976) 'Topics in Lardil Grammar'
Y	Keen (1983) 'Yukulta'

Historical conventions

*	reconstructed form
pA	proto-Australian
pK	proto-Kanyara
pM	proto-Mantharta
pPN	proto-Pama-Nyungan
pT	proto-Tangkic

Morphological conventions

{ }	canonical form of morpheme
TH	laminal stop archimorpheme (*-th-* or *-j-*).....7.2.1
NH	laminal nasal archimorpheme (*-nh-* or *-ny-*).....7.2.1
D	apical stop homorganic with preceding sonorant.....4.2
-	morpheme boundary
=	clitic boundary
.	possible further segmentation
:	separates elements of portmanteau, or where segmentation is irrelevant

Phonological conventions

C	consonant
V	vowel
N	nasal
TH	underlying lamino-dental stop 4.2
J	underlying lamino-palatal stop 4.2
/ /	phonemic representation
[ ]	phonetic representation (IPA)
σ	syllable, syllable boundary 2.4.1
# #	word boundary
## ##	breath-group boundary
á	primary stress on vowel /a/
à	secondary stress on vowel /a/
REDUP	reduplication 2.5.7

Syntactic categories

SUBJ	Subject
OBJ	Object
IOBJ	Indirect Object
A	Transitive subject
S	Intransitive subject
O	Object
SPRED	Secondary predicate 9.4
SSPRED	Secondary predicate on subject 9.4
OSPRED	Secondary predicate on object 9.2.4.3
SCOMP	Subject complement 9.2.2.2
OCOMP	Object complement 9.2.4.3
SCON	NP construed with subject (e.g. body part) 10.3.2.1
OCON	NP construed with object (e.g. body part) 10.3.2.1
(i)	intransitive
(t)	transitive

Pronouns are glossed as:

1	First person 5.2.1
2	Second person
12	First person inclusive
3	Third person
INC	Inclusive (speaker and hearer)
POSS	Possessive
du	Dual
nsg	Non-singular
pl	Plural
sg	Singular

Cases

ABL	Ablative	4.3.4
ALL	Allative	4.3.7
ASSOC	Associative	4.3.10
CONS	Consequential	4.3.13
ERG	Ergative (Yukulta, various Pama-Nyungan)	App B
FOBJ	Future objective (Lardil)	10.4
GEN	Genitive	4.3.8
INSTR	Instrumental	4.3.9
LOC	Locative	4.3.3
MNFOBJ	Marked non-future objective (Lardil)	10.4
OBJ	Objective (Lardil)	10.4
OBL	Oblique	4.3.6
ORIG	Origin	4.3.11
PRIV	Privative	4.3.12
PROP	Proprietive	4.3.5
UTIL	Utilitive	4.3.14
VABL	Verbal ablative	4.4.2.4
VALL	Verbal allative	4.4.2.1
VD	Verbal dative	4.4.2.2
VDON	Verbal donative	4.4.2.6
VEVIT	Verbal evitative	4.4.2.5
VIALL	Verbal intransitive allative (Lardil)	
VPURP	Verbal purposive	4.4.2.7
VTRANSL	Verbal translative	4.4.2.3

Case functions are distinguished by the following abbreviations preceding the case name (e.g. MABL 'ablative used modally, modal ablative'). Adnominal and relational functions are usually clear from context and not marked.

A	Associating	3.4.5
ADN	Adnominal	3.4.2
C	Complementizing	3.4.6
M	Modal	3.4.3
R	Relational	3.4.1
MOD	Variable representing appropriate modal case	

Nominal and locational derivational suffixes

AFFEC	Affectionate	5.1.1.5
BOUND	Geographical boundary	5.3.4.9
CONT	Continuous Direction	5.3.4.6
INDIV	Individualizer	5.1.1.1
INTENS	Intensifier	5.1.2.1
REM	Remote	5.1.1.2
XS	Excessive	5.1.2.4

Verbal suffixes

ACT	Actual	7.2.3.2
APPR	Apprehensive	7.2.3.11
CAUS	Causative	7.4.2
DES	Desiderative	7.2.3.9
DIREC	Directed	7.2.3.12
DO	'do like a'	7.5.3
FAC	Factitive	7.5.2
HORT	Hortative	7.2.3.10
IMMED	Immediate	7.2.3.4
IMP	Imperative	7.2.3.1
INCH	Inchoative	7.5.1
INDIC	Indicative (Yukulta)	
M	Middle (voice)	7.4.1
MNF	Marked Non-Future (Lardil)	
N	Nominalization	7.2.3.13
NEG	Negative (e.g. NEG.POT 'negative potential')	9.6.3
NEGN	Negative nominalization	11.2.1.3
POT	Potential	7.2.3.5
PRECON	Precondition	7.2.3.8
PST	Past	7.2.3.6
PSTN	Past nominalization	11.3
RECIP	Reciprocal	7.4.3
RES	Resultative	7.2.3.14
SUPP	Suppositional	7.2.3.3
THEMAT	Thematic	7.2.2

Particles and clitics

CTRFCT	Counterfactual	9.7.2.1
FOC	Focus	9.7.4.2
FRUST	Frustrated	9.7.2.2
INTERROG	Interrogative	9.5.1
NEGAT	Negator	9.7.3.3

Kin terms

B	Brother	Z	Sister
E	Elder	Y	Younger
F	Father	M	Mother
S	Son	D	Daughter
H	Husband	W	Wife

A note on translations:

English translations are my own unless in inverted commas; these latter are usually in Mornington English. Readers should note that

(a) definiteness and gender are not grammatically marked in Kayardild, and I have translated these according to context;

(b) the unmarked 'ACTual' tense may be past or present, according to context.

(c) Kayardild terms that are highly specific semantically, such as pronouns, kin terms, and zoological/botanical terms have in places received a less specific English translation.

(d) in general, I have supplied utterance translations rather than sentence translations, meaning that they may be more semantically specific than the source sentence itself requires.

List of maps

Maps

Chapter 1
The language and its speakers

1.1 Linguistic type

Kayardild is a dependent-marking, agglutinating, entirely suffixing language with a free order of phrasal constituents and a rich system of case marking, which functions both to relate NPs to the verb (1-1), and to relate one NP adnominally to another (1-2, 1-3).

(1-1) *Mardala-tha* *kuna-walad-a* *rirr-nguni* *ngimi-marr*
rub-IMP child-MANY-NOM grease-INSTR night-UTIL
'Rub the children with grease, ready for tonight (against the cold)!'

(1-2) *mirra-na* *dangka-na* *wangalk*
good-ABL man-ABL boomerangNOM
'the good man's boomerang.'

(1-3) *mirra-wuru* *wangalk-uru* *dangka-a*
good-PROP boomerang-PROP man-NOM
'The man with a good boomerang.'

Unlike most Australian languages, including its ancestral language proto-Tangkic and its near-relative Yukulta, the case morphology of Kayardild is not ergative but accusative: intransitive and transitive subjects are treated alike, and are distinguished from objects. The gloss 'Modal LOCative' on the object noun will be explained below.

(1-4) *Dangka-a* *raa-ja* *bijarrba-y* *wumburu-nguni.*
man-NOM spear-ACT dugong-MLOC spear-INSTR
'The man speared the dugong with a spear.'

(1-5) *Dangka-a* / *bijarrba* *jawi-j.*
man-NOM dugongNOM go.fast-ACT
'The man / dugong went fast.'

It has a passive voice, marked by a "middle" verbal suffix and reassignment of case (1-6); the "middle" is also used in reflexive constructions (1-7). There is also a passive-like resultative participle (1-8).

(1-6) *Bijarrba* *ra-yii-ja* *dangka-na*
dugongNOM spear-M-ACT man-ABL
'The dugong is/was speared by the man, with a spear.'

(1-7) *Dangka-a* *mardala-a-ja* *rirr-nguni.*
man-NOM rub-M-ACT grease-INSTR
'The man rubs himself with grease.'

(1-8) *Dathin-a* *bijarrba* *raa-jirrin-d.*
that-NOM dugongNOM spear-RES-NOM
'That dugong has been speared.'

Kayardild's four most unusual features all involve case morphology.

Firstly, it uses nominal suffixes that are formally identical with case markers (and represent historical extensions of case functions) to indicate tense, aspect and mood on non-subject NPs such as objects or instruments: I call this "modal case".

Thus in (1-4) the locative is used to indicate actuality, in (1-9) the ablative is used to indicate pastness, and in (1-10) the proprietive is used to indicate futurity. Throughout this grammar I indicate this "modal" function of case marking by glossing it with M for 'modal', e.g. MABL 'modal (function of) ablative'. Note that with instruments (as with most complements and adjuncts) the "modal case" suffix follows the instrumental case, while objects take only the "modal case" suffix. There is no accusative case in Kayardild.

(1-9) *Dangka-a* *raa-jarra* *bijarrba-na* *wumburu-nguni-na*
man-NOM spear-PST dugong-MABL spear-INSTR-MABL
[PRIOR] [PRIOR]
'The man speared the dugong with a spear.'

(1-10) *Dangka-a* *raa-ju* *bijarrba-wu* *wumburu-nguni-wu.*
man-NOM spear-POT dugong-MPROP spear-INSTR-MPROP
[FUT] [FUT]
'The man will spear the dugong with a spear.'

While such marking of tense/aspect/mood may appear from (1-9) and (1-10) to involve simple agreement with the verbal inflection, the modal case categories do not correlate absolutely with verbal inflection for tense and mood. To begin with, there is a larger set of verbal inflections than modal cases, so the modal case categories are in some sense superordinate to the more detailed verbal inflections (see 10.1.2). In addition, modal case can to an extent be varied independently of verbal inflection. For example, the APPRehensive verbal inflection, which indicates that someone would wish to avert the situation described by the clause, most commonly combines with the OBLique modal case:

(1-11)	*Dathin-a*	*naljirndirri*	*kurri-nyarra*	*ngijin-inj ,*	*kala-nyarr.*
	that-NOM	bush.turkeyNOM	see-APPR	1sg-MOBL [EMOT]	fly-APPR

'That bush turkey might see me and fly off.'

But it may combine with the locative ("instantiated") modal case when the unpleasant situation is already being realized (1-12), and with the proprietive ("future") modal case when the speaker is issuing a threat and stressing his or her potential to carry it out, as in (1-13). A full discussion of the independent use of modal case is in 10.1.3.

(1-12)	*Thararr-a*	*kali-nyarra*	*wambal-iya ,*	*naa-nyarr.*
	ember-NOM	jump-APPR	bush-MLOC [INSTANTIATED]	burn-APPR

'(Look out), the embers are jumping into the bush, it might catch fire.'

(1-13)	*Nyingka*	*ngudi-na*	*wangalk,*
	youNOM	throw-NEG.IMP	boomerangNOM
	ngada	*ngumban-ju*	*burldi-nyarr.*
	1sgNOM	you-MPROP [FUT]	hit.by.throwing-APPR

'Don't you throw the boomerang, or I'll throw (one) at you.'

In these examples I have supplied two glosses for the relevant morphemes—one relating to its more basic and normal case function (locative, ablative, proprietive); the other to its semantic content—"prior" in (1-9), "future" in (1-10) and (1-13), "emotive" in (1-11), and "instantiated" in (1-12). In the rest of this grammar I shall in general only use the first type of gloss, but will use the second type when it is relevant—for example when arguing about the semantics of the modal case categories. In addition to the four categories just given there is a "directed" category, marked by the modal allative and signalling inceptive aspect or direction of the event towards the speaker, and a 'zero' category, marked by the absence of modal case, which is used in imperatives (e.g. 1-1) and progressive nominalizations.

Modal case—which as far as I know is unique to the insular Tangkic languages—appears to have evolved from two sources. A detailed comparative-historical study is in 10.4; for the moment these sources can be summarized as

(a) the use of case to show interclausal relations (e.g. locative on all words in a subordinate clause to show simultaneity); this construction was later generalized to main clause use.

(b) the existence of a number of detransitivized case frames, responsive to modality, negation and inverse person combinations, in which the object is marked with an oblique case—the locative, dative, or proprietive.

The second unusual feature of Kayardild is the extent of agreement: in general, case percolates down indefinitely from higher to lower constituents, with the result that in certain types of construction deeply embedded nominals (such as adnominal possessives) may accumulate up to four case suffixes.

To begin with, adnominal NPs (including possessives marked with the ABLative or genitive) agree in case with their heads. Thus in (1-14) 'man' takes both an inner ablative, marking its role as possessor, and an outer instrumental, inherited from 'net', head of the NP:

(1-14) *dangka-karra-nguni* *mijil-nguni*
man-GEN-INSTR net-INSTR
'with the man's net'

Now the appropriate modal case will appear on the object and instrumental NPs:

(1-15) *maku-wa* *yalawu-jarra* *yakuri-na*
woman-NOM catch-PST fish-MABL

dangka-karra-nguni-na *mijil-nguni-na*
man-GEN-INSTR-MABL net-INSTR-MABL

'The woman caught fish in the man's net.'

To show how we can get four layers of case marking, it is first necessary to explain a further use of case in Kayardild: the OBLique and LOCative cases may "complementize" clauses, appearing on all words (including the verb) of the subordinate clause, after all other inflections[1].

Example (1-16) illustrates this use; the gloss COBL stands for 'complementizing function of OBLique case'. As the word *thabujukarranguninaantha* illustrates, nouns may accumulate four levels of case inflection: in this case an adnominal genitive, an instrumental by agreement with 'net', a modal ablative coding "prior" tense, and a "complementizing" oblique marking all words in the clausal complement of *mungurru* 'know'.

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1 In fact there are certain conditions under which complementizing case is blocked from appearing—see 12.1.6.

(1-16) *ngada* *mungurru,* *[maku-ntha* *yalawu-jarra-ntha*
1sgNOM know woman-COBL catch-PST-COBL

yakuri-naa-ntha *thabuju-karra-nguni-naa-ntha*
fish-M.ABL-C.OBL brother-GEN-INSTR-M.ABL-COBL

mijil-nguni-naa-nth]
net-INSTR-M.ABL-COBL

'I know that the woman caught the fish with brother's net.'

Other constructions resulting in multiple case-marking include recursion of relational or modal case, and the use of an outer OBLique case on NPs in nominalized clauses; these are discussed in 3.4.7. There I also discuss the degree to which the order of case suffixes is iconic, parallelling the syntactic level at which they originate: there are some examples of anti-iconic ordering which support a view of the morphological ordering as being historically rather than synchronically determined.

The functioning of the complementizing case system is the third unusual feature of Kayardild grammar, and is discussed in full in Chapter 12. Historically, complementizing case originated in proto-Tangkic as agreement with antecedent NPs in the ergative/locative or dative, although subsequent changes in the main clause case system have obscured this. Synchronically, its main functions can be broken down into

(a) marking complement clauses, which are syntactically the objects of main clause predicators like 'know', 'see', 'rejoice' and so forth; (1-16) is an example of this function.

(b) marking subordinate clauses obeying "odd pivot" conditions—essentially, when the coreferential NP is not subject of both clauses; this may include main clause object—subordinate subject (1-17), main clause subject- subordinate object, and various other conditions.

(1-17) *dan-da* *banga-a,* *[kakuju-ntha* *raa-jarra-ntha*
this-NOM turtle-NOM uncle-COBL spear-PST-COBL

walbu-nguni-inj]
raft-INSTR-COBL

'This is the turtle, which uncle speared from the raft.'

Although it is tempting to analyse this as a switch-reference system, with complementizing case being assigned under "different subject" conditions, I show in 12.2 that this is an inadequate characterization, since complementizing case still appears under certain "same-subject"

conditions as long as the pivot—the most salient common NP—is not subject of both clauses. An example is (1-18), in which both clauses have the same subject ('we'), but in which the pivot ('net') is object of the main clause and instrument of the subordinate clause.

(1-18) *ngakulda* *kurrka-tha* *bakii-ja* *ngurrumanji,* *wumburung-k*
1pl.inc.NOM get-IMP all-IMP bagNOM spear-NOM

[*raa-juru-y* *yalawu-juru-y* *yakuri-wuru-y*]
spear-POT-CLOC net-POT-CLOC fish-MPROP-CLOC

'Let us get all our bags and spears, with which to spear and net fish.'

In addition to these subordinate clause uses, complementizing clauses may be "insubordinated", or used as independent main clauses. In this case they may be interpreted in two ways, corresponding to the two types of subordinate use.

Corresponding to the "complement clause" use, they may be interpreted as having ellipsed main clause predicators of knowledge, perception, speech and so forth, as in (1-19); in some ways they function like evidential markers in other languages.

(1-19) [*Dan-kurrka* *ri-in-kurrka* *thardawankawuru-ntha*
here-LOC:COBL east-FROM-LOC:COBL aeroplane-COBL

burri-jurrk !]
appear-IMMED:COBL

'(I can hear) the aeroplane coming in just now, here from the east!'

The exact interpretation of these clauses depends on a mixture of convention and inference—essentially, one uses context to narrow down the set of possible ellipsed main clauses that are compatible with the form of the subordinate clause, but there are additional conventional elements. Although I have glossed (1-19) as having an ellipsed main clause 'I can hear' since this was appropriate for that particular utterance, other utterances of the same sentence in different contexts might be glossed as 'Can you hear that ..', 'I can see that ..' and so on. The range of construction types, their interpretations, and their implications for the boundaries between grammar and pragmatics, are discussed in 12.4.

Corresponding to the "odd pivot" use, they may be used in a range of sentences which have a marked relationship between their grammatical structure and their discourse-functional structure: an initial and oversimplistic characterization is that they stray from the unmarked type in which the subject is the topic. The range of mappings between grammatical function and topic are similar but not identical to those

found in 'odd pivot' constructions in which the complementized clause is subordinated.

For example, in (1-20) the topic 'pandanus nuts' is object of the second sentence, and accordingly the second sentence receives complementizing case. In such "odd topic" sentences the topic NP is either in the nominative, itself escaping the complementizing case (1-20), or is omitted altogether (1-21).

(1-20) *Kambud-a barji-j, ngaarrka barji-ja*
pandanus-NOM fall-ACT pandanus.nutNOM fall-ACT

rar-umban-da warrmar. [mutha-wuu-ntha
south-ORIG-NOM windNOM much-MPROP-COBL

darr-u-ntha diya-juu-ntha ngaarrk]
time-MPROP-COBL eat-MPROP-COBL pandanus.nut

'The pandanus fruit falls, the pandanus nut falls at the time of the south wind. (One) can go on eating pandanus nut for a long time.'

A similar example is (1-21). Here the topic is established by extralinguistic context rather than prior discourse.

(1-21) A young man appears, and the speaker says of him:

[ngijuwa mima-tharra-nth]
1sgCOBL beget-PST-COBL
'He's my son.' (lit. 'I begot (him).')

The fourth unusual feature of Kayardild is the existence of a second series of case suffixes which behave semantically and syntactically like ordinary case markers—in marking roles like recipient, direction of motion, instrument and so on, in occupying the same morphological position as regular case markers, and in showing concord over the NP—but which convert their hosts from morphological nouns to morphological verbs, which then agree in all verbal categories with the main verb. I shall refer to this phenomenon as "verbal case".

Two examples from a series of six are the "verbal dative", which marks beneficiaries and recipients, including the indirect objects of 'give' (1-22), and the "verbal allative", which marks destinations (1-23, 1-24).

(1-22) *ngada wuu-ju wirrin-ku ngijin-maru-thu*
1sgNOM give-POT money-MPROP my-VD-POT

thabuju-maru-thu.
e.brother-VD-POT

'I will give the money to my elder brother.'

(1-23) *ngada* *warra-jarra* *dathin-kiiwa-tharra* *ngilirr-iiwa-tharr.*
1sgNOM go-PST that-VALL-PST cave-VALL-PST
'I went to that cave.'

(1-24) *ngada* *warra-nangku* *dathin-kiiwa-nangku*
1sgNOM go-NEG.POT that-VALL-NEG.POT

ngilirr-iiwa-nangku.
cave-VALL-NEG.POT

'I will not go to that cave.'

Their structural and semantic parallelism with normal cases, their pattern of concord, their productivity and their semantic predictability all mark these "verbal cases" as inflectional rather than derivational (4.4), yet they clearly violate the view, often expressed by linguists, that inflections do not change word class. As such, the phenomenon of verbal case, with the mismatches it creates between morphological and syntactic categories, is an important one for theories of the relation between morphology and syntax. In 3.1.2 I propose to treat words inflected for verbal case as syntactically nominal but morphologically verbal.

1.2 Kayardild and its neighbours

1.2.1 Language names

Previous investigators have written the tribe and language name as Kaiadilt (Tindale 1962a et seq), Gayardilt (O'Grady – Voegelin – Voegelin 1966), Gayardild (Wurm 1972) and even Guyadilt (Uniting Church mission cassette). Phonetically it is [kajaɖilt] or [gajaɖilt]—the voicing of initial stops is in free variation. In the practical phonemic orthography used here it is *Kayardild*. In this book I will reserve this spelling for the language name, but will use the spelling Kaiadilt in referring to the people, as they do themselves (as in the name "Kaiadilt Aboriginal Association").

The term Kayardild is, etymologically, a compound of the words *ka(ng)-* 'language' and *yardild(a)* 'strong'. Although Kayardild speakers no longer recognize this etymology themselves, it is clearly preserved by one Yukulta term for their language: the uncompounded

yardilda kangka 'strong talk'[2]. Kayardild speakers also refer to their language as *ngarrkuwa kangk* 'strong language', *rarumbanda kangk* 'southern language' (Bentinck Island lies to the south of Mornington Island, where the majority now live) or, incorporating the English word "Bentinck", *bandingkawanda kangk* 'language from Bentinck'. In Mornington English it is simply called "the Bentinck language". The Kaiadilt themselves are often known as "Bentincks" or "B.I.s".

The Kaiadilt's traditional lands comprised the South Wellesley Islands (Map 1): Bentinck Island, Sweers Island, several smaller islands, and sometimes Allen Island. In pre-contact times they were almost totally cut off from the rest of Australia, and had no regular contact with other tribes. The delineation of tribal and language boundaries is therefore quite unproblematic, in contrast to many other parts of Australia (cf. Rigsby—Sutton 1982, Merlan 1982a).

Dialect differences, if they existed at all, were very slight. At most they were limited to the pronunciation of the phoneme *r* and sporadic vowel harmony in a few words (e.g. *rilungk* or *rulungk* 'to the east'), and the oblique bases of a few nouns. But it is hard to untangle these from the more important systematic differences due to age and sex. Apart from these few variations, the Kaiadilt speech community was homogeneous. There were no terms for regional speech variants.

1.2.2 The Tangkic subgroup

In the North Wellesley Islands and the adjoining mainland were spoken three other languages, Lardil (L), Yangkaal (Ya) and Yukulta (Y), which O'Grady—Voegelin—Voegelin (1966) classified together with Kayardild in the 'Tangkic' group (*tangka* means 'person' in all four languages)[3]. More recently Minkin, classified by O'Grady et al. as a family-level isolate, has been shown, on the basis of an analysis of scanty nineteenth century materials, to be fairly closely related to the Tangkic languages, though more distant from any of them than they are from each other (Evans 1990a). The locations of all these languages are shown in Map 1.

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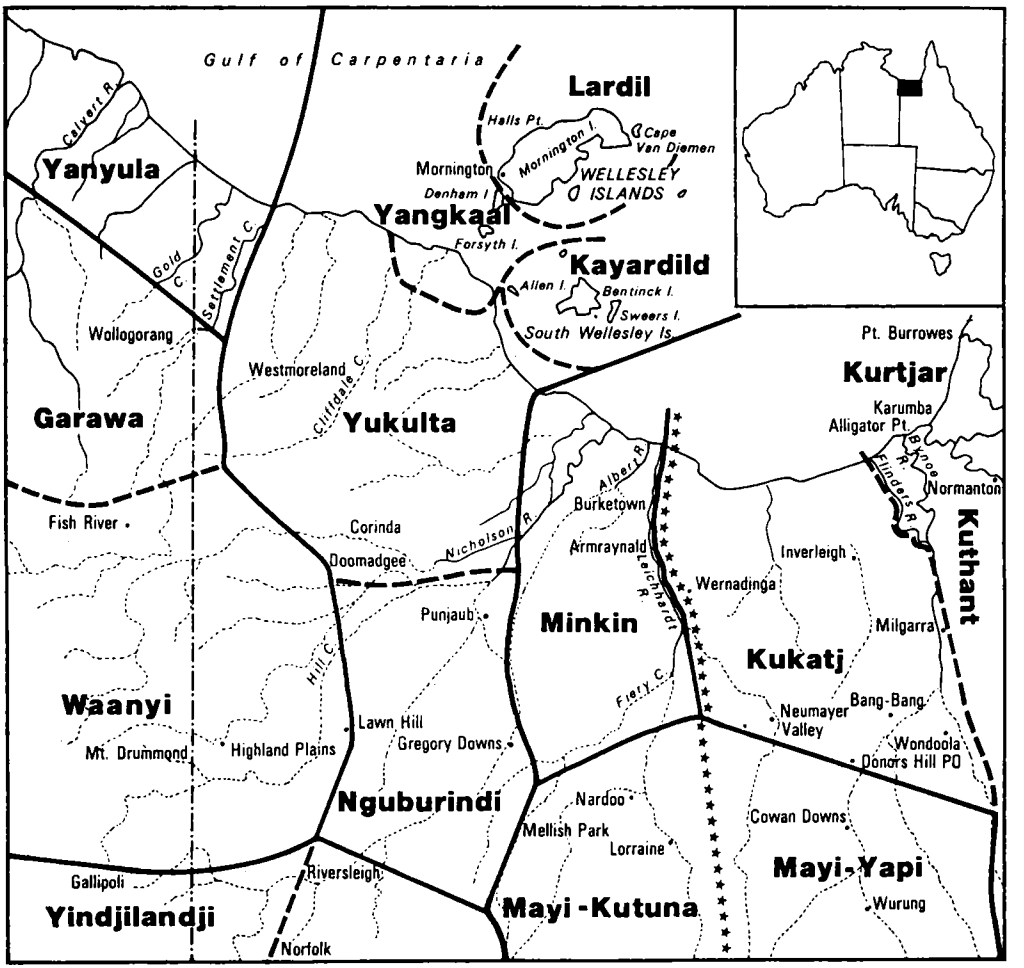
[2] The similarity of formation of the name for the related language Lardil (actually *Leerdil*) is shown in the Yukulta name for it, *Layardilda* , historically segmentable into *lak* 'custom, way, tradition' and *yardilda* 'strong', therefore 'strong (in) custom'.

[3] This has been misspelt by a number of writers as Tangic.



* * * * * * * Ethnographic boundaries: Eastern boundary of circumcision and subincision

——— Language subgroup boundaries

Map 1. Kayardild and neighbouring languages

Keen (1983) suggests that "Yukulta, Gayardilt and Yanggal, together with Nguburindi[4], belong as dialects of one language while Lardil is a different but closely related language." Comparison of a 220-word basic vocabulary list supports this (Table 1-1): the three "dialects" have cognacy rates of 70% or more, while all have between 45% and 60% cognacy with Lardil.

Moreover, there is closer phonological resemblance between cognates of the three "dialects" than with L. Y appears to have been most conservative, preserving the reconstructable proto-Tangkic forms. Ya and K share the same minor phonological change involving prosodic truncation of breath-group final short *a* . L has suffered the most drastic changes: radical final truncation of up to one syllable, development of a fourth vowel *e* , neutralization of the *d* vs *rr* contrast word-finally and

Table 1-1. Percentage of shared vocabulary within the Tangkic group

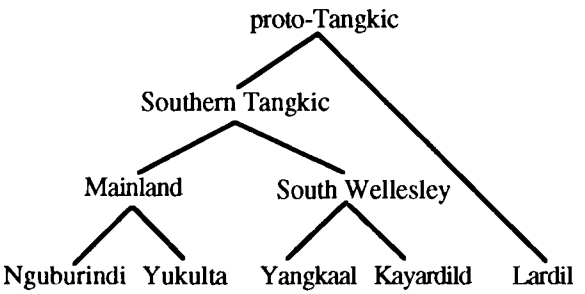
Yuk				% Cognacy
69 77 71	Kay			N/Adj Verb Total
75 92 80	85 89 86	Yang		
39 64 45	45 63 49	55 74 60	Lard	

preconsonantally, and a number of other morphonological changes (see Hale 1973 and Klokeid 1976). Like K it has merged the *r* and *rl* phonemes of proto-Tangkic, but where K has generalized the glide realization, Lardil preserves both in free variation. The effect of these changes on a number of Tangkic words is shown below. A full treatment of historical Tangkic phonology, and comparative Tangkic dictionary, is in Evans (in prep b).

[4] Known only through a word list by Roth (1897), which shows 90% cognacy with modern Yukulta. See Keen (1983).

gloss	Yukulta & pT	Kayardild	Yangkaal	Lardil
'ear'	*marralda*	*marrald(a)*	*marrald(a)*	*merral*
'red'	*kandukandu*	*kandukandu*	*kandukandu*	*kandukan*
'kookaburra'	*thalkurrka*	*thalkurrk(a)*	----	*thalkurr*
'blowfly'	*ngirrnguda*	*ngirrngud(a)*	*ngirrngud(a)*	*nginngi(rr)*

The combined lexicostatistical and phonological data thus suggest the following subgrouping:



On the typological plane, substantial drift in the grammars of all the insular Tangkic languages (Yangkaal, Kayardild and Lardil) somewhat obscures this picture. Yukulta is alone in having retained ergative morphology, and is the only Tangkic language to possess an "auxiliary" complex, cliticized to the first clausal constituent, which cross-references core participants and codes tense, modality, and transitivity. Whether or not this auxiliary was present in proto-Tangkic is controversial, and will be discussed in 10.4.1. L, K and Ya have all developed systems of modal case, while Y has not, although it bears the germs of this development in its various semantically triggered detransitivized constructions. Finally, Y makes but occasional use of two verbal cases whereas K, Ya and L have expanded the number of verbal cases to seven, four and six respectively, with a commensurate increase in their functional load.

Typologically, then, Yukulta is the odd one out. The limited information available on Yangkaal (see Text 12) suggests that its grammar was basically the same as Kayardild's. For this reason, it seems best to classify Kayardild and Yangkaal as dialects of one language, and Yukulta as a separate (but closely related) language[5].

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[5] Until 1986 many of the Kaiadilt I worked with claimed not to have heard Yukulta spoken. In 1986 some of these attended a church conference at Doomadgee and came

The historical explanation for this is complex. An attempt at reconstructing the most important changes is made in 10.4 and 12.6; there I argue that proto-Tangkic resembled Yukulta in most respects, that this proto system was highly unstable, and evolved into the unusual systems found in the other Tangkic languages. It seems likely that Yukulta was restrained from these developments by sustained contact with neighbouring languages—Karrwa in particular resembles it structurally in having a bound subject and object pronoun complex showing tense.

To explain why Lardil should diverge most, lexically and phonologically, we must assume that it was separated first. Later on, Yangkaal and Kayardild separated from Yukulta; the drift away from ergativity was strong enough, as it were, to carry them in the same typological direction as Lardil. In support of the hypothesis that the Lardil and Kayardild/Yangkaal modal case systems developed separately, in Lardil the unmarked case for the object is an old dative, while in Kayardild / Yangkaal it is an old locative.

Looking beyond Tangkic to more distant linguistic relations, we shall see in 1.4 that its genetic affiliations lie with the non-Pama-Nyungan languages of Arnhem Land, well to the north west, although there is evidence for sustained subsequent contact with Pama-Nyungan languages now spoken on the northern fringe of the Central Australian desert. Before examining these issues, however, we must look at the traditional cultural setting of the Kaiadilt people.

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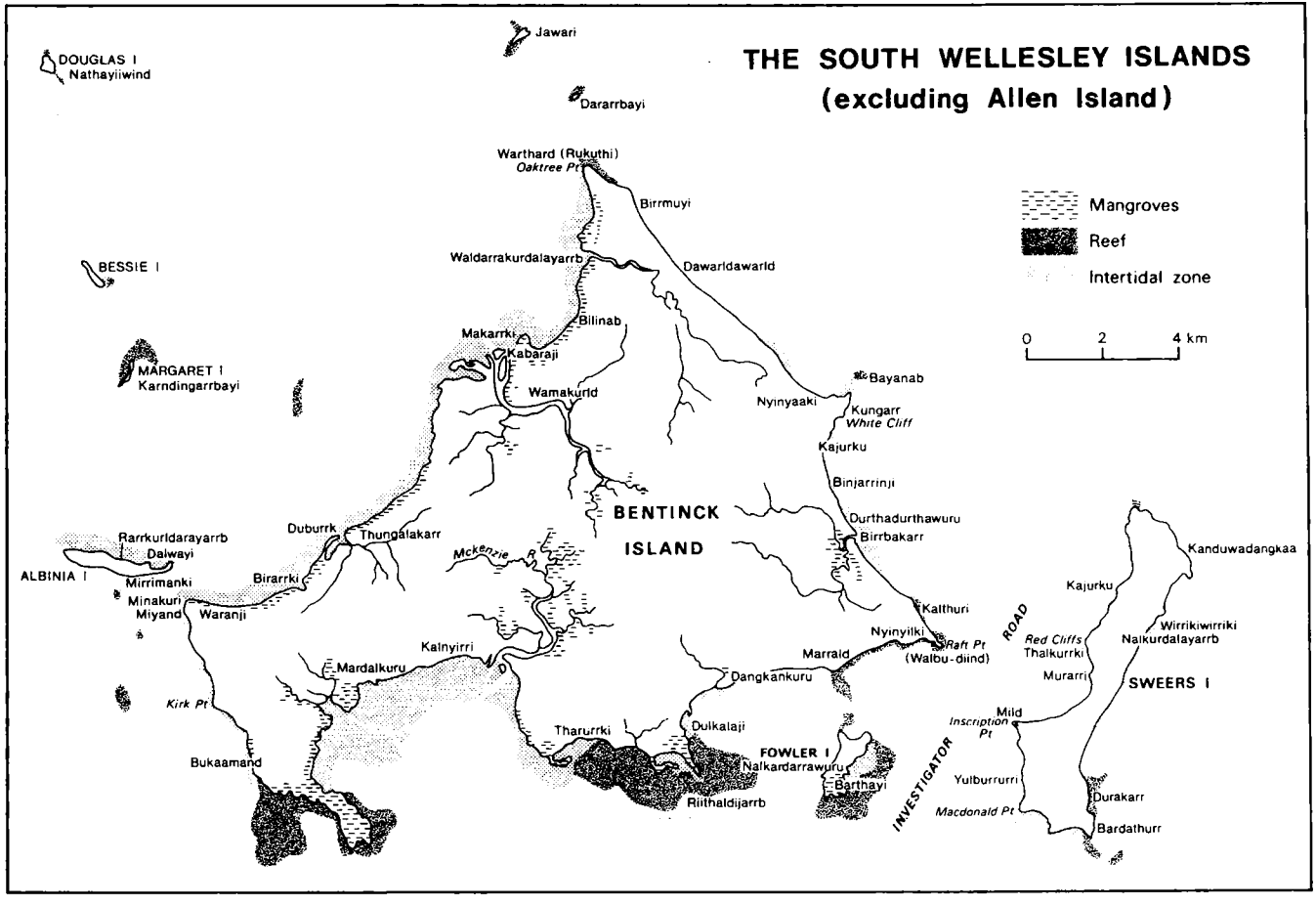
back amazed at being able to understand Yukulta, saying "it's just like ours, but they altogether take it a bit light". Since that time the last fluent Yukulta speakers have died so I was unable to investigate this further, but the Kaiadilt reaction suggests the considerable grammatical differences were outweighed by the lexical similarities to give a feeling—how accurate we cannot say—of mutual comprehensibility.



Map 2. The South Wellesley Islands

1.3 Traditional Kaiadilt culture

1.3.1 Ecological setting

Within mythological memory the Kaiadilt have been isolated on their own group of small, low-lying islands in the southern Gulf of Carpentaria (see Map 2). Bentinck Island, the largest, is a mere 16 km across at its widest, and the total land area, including outlying reefs and sandbanks, is only 180 square kilometres. Mangrove flats, huge sand dunes and crumbly low cliffs enclose an interior of claypans, tidal estuaries and low-lying savanna woodlands. The highest point on Bentinck is 33' above sea level. Sweers Island, four kilometres to the east, is smaller but higher, rising to 102'.

Contrasting with the barren landscape is a sea whose intricate topography of reefs and sandbanks supports a rich diversity of fish, turtle and dugong, and it is this abundance which sustained a population known to have reached 123 in 1942 (Tindale 1962b). Tindale (1977:249) claims that the population density was "one of the highest known for a living stone tool using people dependent on foraging for their subsistence."

Lying at the semi-arid margin of the monsoonal tropics, Bentinck Island receives some 33" annual rainfall, almost all between December and April. A fresh water lagoon at Nyinyilki and a few other waterholes hold out till September, after which water must be sought in soaks behind the sandhills. Water rather than food seems to have limited population growth, and many myths stress its importance. In one myth, Rock Cod's liver is cut to pieces and thrown onto rocks at the foot of a cliff on Sweers Island, where it becomes a perpetual spring.

In another, thirsty men dig long and hard until finally *Nalkardarrawuru* ('the one with water lilies on his head') emerges from the dry sand. He consents to give humans water, but only in exchange for their wives and daughters. A plausible interpretation of this myth is that it recounts a historical situation in which newcomers intermarried with an existing local population, to whom they betrothed their womenfolk in exchange for knowledge of the country's resources—the "waterhole" is a widely used symbol in Aboriginal Australia for knowledge. However, it is not necessararily the case that these events took place in the South Wellesleys: Kaiadilt arriving on uninhabited Bentinck Island may have brought the myth with them, and it may derive from an earlier immigration of Tangkic-speaking peoples into the southern Gulf region.

Winds follow a regular seasonal pattern. In winter there are cold dry south-easterlies, which often wash up dead but perfectly edible fish, known as *balkanda*. In summer, monsoon-bearing winds blow from the north-west; cyclones and "waterspouts" are frequent.

During the monsoon the enormous volume of water discharged from the Gulf rivers sometimes turns the sea fresh[6]. In other years the north west monsoons driving into the Gulf may stack up the sea; in conjunction with king tides this can produce rises of nearly four metres. The disastrous results of this for the Kaiadilt are recounted in 1.5.

1.3.2 Food, hunting and material culture

Stretching around the rocky shores are[7] "dozens of semi circular dams ... built of rocks of varying shapes and sizes, the whole naturally cemented together with the oysters that exist here in profusion. As the tide rises over the dam so the fish come in, to be left behind when it falls. By this simple yet very effective method of capture the natives secure all the fish they require" (Roth 1908b). The original construction of these fish traps (*ngurruwarra)* is attributed to the mythical black crane Bujuku and Kaarrku the seagull. But older Kaiadilt recall building and maintaining them.

In the shallow estuaries fish were frightened, by clapping the water, into folding nets (*mijilda*) woven from grass twine (*malbaa*). Creeks were blocked with grass dams and the fish poisoned by swishing mangrove bark (*jurrkaa*) in the water. The women dug quantities of mussels from the exposed shoreline, and hammered oysters open with rock fist axes (*jilanganda*), flicking the flesh into a baler shell dish with timber oyster picks (*thawurra*).

The men spent long silent hours on reefs and sandbanks, waiting to spear the larger fish, the marine turtle, or the dugong. Wounded dugong were "wrestled"—held under water until they drowned. Both dugong (*bijarrba*) and turtle (*bangaa*)—grouped together by the superordinate term *kunbulka* ('big game')[8] —yielded huge quantities of meat and if several were caught, messengers (*marrjinda dangkaa*) were sent to all corners of the island inviting everyone to share the feast. Such big animals were cooked in ground ovens (*walka*) dug in the sand, instead of on the coals like small fish.

The quest for 'big game', turtle eggs and birds often led men across to the waterless outlying islands on*walbu*, rafts made from white

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6 So pronounced is this effect that the Macassans called the sea south and east of the Wellesleys *air tawar* 'fresh water' (Earle 1847).

7 Here and in the following sections I use the present tense when describing traditions that continue today, and the past for those which are no longer practiced.

8 Of course there are also many specific terms: at least fourteen for types of dugong, and eleven for types of turtle, as well as numerous words for special body parts.

mangrove or driftwood poles lashed together with bark rope (Roth 1908a). Sitting on a cushion of seaweed, with a baler shell or two of fresh water and a couple of spears propped beside them, they propelled themselves along with a mangrove root paddle or *bilirra* .

These rafts were used to transport families across estuaries, to nearby Sweers Island, and even to Allen Island twelve kilometres away. But they were not reliable enough to allow regular deliberate contact with the mainland which, although only eighteen kilometres distant, could not be seen from low-lying Bentinck Island. Harney (1946:124) reported meeting a Bentinck Islander on the mainland, who had been washed there by a storm, and Roughsey (1971) tells of two Bentinck men washed up on Mornington Island, where they were promptly killed. Memmott (1982) claims that Kaiadilt occasionally met mainlanders on Allen Island and heard about innovations like the dugong net. But whatever contacts there were, that did not end in death or exile, must have been separated by decades of isolation.

Although most food came from the sea and estuaries, and people spent most of their time there, the hinterland was far from neglected. Goannas and snakes were hunted all year round, and during the wet season birds and flying foxes were brought down with returning boomerangs. Wild figs (*kirrika*), mangrove fruit (*thaminyirri*), wild tomatoes (*birrbari*), pandanus fruit (*kambuda*) prepared in a number of ways, water lily roots (*barrngkaa*) pounded into flour, bull rush heads (*nardaa*), wild yams (*thawalda*), creeper roots, and swamp rush corms (*damuru* , *panja* in Mornington English) were all gathered[9]. It is clear from the post-contact reactions of other groups to Kaiadilt food-gathering practices that they gathered and ate a number of vegetable foods shunned by groups in richer coastal regions[10]. Ground nut and water lily sites belonged to women, as did their stories.

Throughout the Wellesleys a powerful taboo prohibited the cooking of land foods, especially yams, on the same fire as sea foods, or the

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9 Nevertheless the relative unimportance of vegetable food is reflected in the lack of a word for it: *wurand* 'food' includes fish, shellfish, fruit, vegetables and can also be used for meat, although the term *wurdalji* 'muscle, meat' is more common with the flesh of turtle and dugong. The lack of a term for 'vegetable food' is unusual by Australian standards, but so is the low proportion of plant food in the diet.

10 "The Aurukun people were interested to see that the Allen Islanders ate things that they did not. Food was much scarcer on the little island than at Aurukun with its great river estuary, miles and miles of mangroves, coastal scrubs, and inland bush. The Allen Islanders and no doubt the Bentinck people too had found a few things were edible that our people had not. There was a little root, rather like a fossilized worm, that grew in the sand-dunes just back from the beaches, which we tasted, and decided was rather like an earthy potato. The Aurukun people were interested in this, but simply amused at the Allen Islanders eating hermit crabs." (McKenzie 1981: 96)

mixing of sea and land foods in one meal. The Kayardild verb *markuriija* describes the potentially fatal stomach illness (*mulgri* in Mornington Island English) which ensues. The fat of all land animals must also be washed from the body before entering the sea.

Land and sea each yielded important raw materials for artefacts. With great resourcefulness the Kaiadilt obtained everything from these few small islands: nothing was gotten by trade. From the land came the hardwoods used for spearheads, boomerangs, food-pounders, digging sticks (*kathirra*), prong-ended throwing sticks (*jardiyali*) and sharpened clubs (*karwaa*). In the swamps grew the beach hibiscus or "corkwood" (*Hibiscus tiliaceus*), whose trunks were used for spear shafts (*wumburungka*) and whose bark was made into rope (*murndulka*); the importance of this species is shown by the existence of two terms for it: *murdu* denotes the thinner specimens, and*rarrkurlda* the thicker ones used for heavy spear shafts.

Firesticks (*wijiri*) were cut from shrubs at the mangrove fringe (*biyalda*); mud cockles (*thubalda*) from the estuaries served as fish scrapers or wood planes.

Baler shells (*rawalanda*) were used as food and water carriers, and as scoops for well-digging; their shards were nibbled into serrated knives (*narraa*) or axeheads. Fish-bone hooks were not used—instead, bait tied to a line was gradually drawn in, enticing the fish to within spearing distance.

During the day the Kaiadilt sheltered under the casuarina trees growing just behind the beach. Night camp was usually pitched just above the next high tide mark. In the dry season they slept behind low circular windbreaks (*bankirri*) rolled from beach vines, warming themselves with small fires. "On normal cool nights when they felt the chill of heavy dews, and on occasions when mosquitoes were about, they tended to sleep sitting up, with legs folded, under a small grass tuft tied at the top to form a cone. They used a small smoky fire at the entrance for mosquito deterrence, or a somewhat warmer fire against the chill" (Tindale 1977).

However, the cool southerly trades of July and August and the monsoonal cyclones sometimes drove them back to the higher vegetated sandhills, where they dug pits which they covered with timber, bark and grass: "we discovered in one instance a large hole, containing two apartments (so to call them), in each of which a man might lie down" (Flinders 1814:145).

The only clothing worn was the grass-string belt (*birrka*), used for carrying objects or fish, and also presented ceremonially to young girls on betrothal. A pubic tassel of leaves (*wirrilda*) could be suspended from this during ceremonies. As elsewhere in Australia, red and white ochres were used in body decoration.

The material culture of the Kaiadilt, as summarized above, is essentially similar to that of the Lardil, Yangkaal, and the Yukulta on the adjoining mainland. Trigger (1987a), surveying the material culture of the region, points out a number of significant differences between these groups and adjoining mainland groups such as the Garawa and Waanyi[11] that suggest clear correlations between the Tangkic linguistic group and what he calls the "coastal mainlanders and Wellesley Islands" material inventory.

Contrasted with that of the Garawa/Waanyi, the material culture of the Tangkic-speaking groups is characterized by the absence of stone tools and stone axe blades and spear tips, with shell being substituted, the absence of longitudinal fluting on wooden artefacts such as boomerangs and woomeras (spearthrowers), the restriction of woomera designs to a single one-piece type known by some reflex of the word *murruku* (while Garawa and Waanyi have two other complex types with separate wooden pegs at the distal end), and the restriction of water-craft to mangrove rafts, whereas both the Garawa/Waanyi and the Yanyuwa used sewn bark canoes and (in the case of the Yanyuwa) dugout canoes. Counterbalancing these absences from the Tangkic-speaking peoples' inventories are the intensive use of stone fish-traps and the manufacture of characteristic spear-types, used primarily for hunting dugong and turtle, made by attaching hardwood points to a light wooden shaft.

The material culture of the Kaiadilt, then, is in its essentials identical to that of the other Tangkic-speaking groups, and the whole Tangkic-speaking cultural bloc contrasts markedly with its neighbours, showing marked adaptation to both the material resources (such as lack of workable hard stone) and the predominantly marine food resources of the region.

1.3.3 Social organization

The South Wellesley group was divided into eight clan estates, each belonging to a patrilineal clan headed by a *dulmarra dangkaa* ('land-having man'), whose permission was required before hunting or fishing on his land. Transgression could be punished by spearing or by sorcery, involving "roasting" the transgressor's faeces in a ground oven, said to cause death by constipation. Upon the death of the *dulmarra dangkaa* ownership passed to a brother or son by a sort of verbal deathbed will. As this indicates, patrilineal clan membership is the most important

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[11] I shall follow the established ethnographic spellings Garawa and Waanyi in referring to these groups, but in referring to their languages will use the versions Karrwa and Wanyi, which employ their recently developed practical orthography.

factor in claiming land ownership, but other factors often come into play, including one's birth-place.

The Kaiadilt lacked named subsections; in this they differed from their mainland neighbours and also from the Lardil (Sharp 1935). They did, however, have patrilineal totems or "signs" passed from father to children; these together with the birth-place name and conception name (see below) constituted (and still constitute) the principal means of personal identification. The eight main totems are *bijarrba* 'dugong', *thuwathu* 'rainbow', *dibidibi* 'rock cod', *kulkiji* 'shark', *ngarrawurna* 'bluefish', *thandamanda* 'water spout', *rukuthi* 'casuarina' and *walbu* 'raft'. Each of these has a primary association with a particular estate. But since the actual facts of descent are often more complex than Kayardild theory prescribes—since, for example, a child may claim patrilineal links to its mother's present husband in addition to its own father, who may not have been from the same clan—it sometimes happens that such totem names appear on individuals from other clan territories than that primarily associated with the name.

Birth place names are formed by adding the suffix *-ngathi* to the name of the place where one was born, e.g. *murdumurdungathi* 'person born at Murdumurdu' (5.1.1.3). Birth at a particular place confers some rights to claim land ownership, and although there is a tendency for people to be born on their father's estate, they may be born elsewhere as a result of their mother's remarriage, or temporary visits to other parts of the island. When this happens they have some claims to the estate where they were born, and conversely their claim to their father's "real" estate may be weakened.

Conception names are given on the basis of some extraordinary event early in the mother's pregnancy which presages (*ngaarrngija*) the entry of the spirit child into the womb; the quickening of the foetus follows soon after. For example, a dugong may "give itself up" to the father of the child-to-be, and that child will be given the conception totem *bijarrba* 'dugong'. I shall call this "spiritual conception" to distinguish it from physiological conception; the Kaiadilt believe that both are necessary for a foetus to develop. Children are believed to show physical or temperamental resemblances to their conception totems—for example, a "dugong" child may have a squashed ear like that of a dugong, or a "rainbow" child may have a powerful temper like that of the rainbow serpent *thuwathu* . Nominally one should not eat the flesh of one's conception totem, although in practice this stricture is not observed when the totem is a large food source like a dugong or turtle. Both conception totems and patrilineal totems are known by the same expression *niwanda wuranda* 'his/her food'.

Although the Kaiadilt's social organization was different from their neighbours, their kinship system was virtually identical. To begin with, it is like all Australian kinship systems in being "classificatory": all

members of the social universe are one's kin, with the initial basis of extension being the treating of same-sex siblings as alike: one's father's brothers are also called "father", one's mother's sisters as "mother"; this then extends to calling one's father's brother's children or one's mother's sister's children "brother" or "sister", and so on. Nonetheless, there are a number of linguistic means for distinguishing "actual" from "classificatory" kin—see Appendix A.

The Kayardild kinship system is essentially of the Nyulnyul (or Aranda) type (Fox 1967), with the favoured marriage being between children of patrilateral cross cousins (see Appendix A). Eligible partners were termed*bulmirra* [hair-good] 'straight head' and ineligible ones *bulbirdi* [hair-bad] 'wrong head'. Once an appropriate marriage was arranged, the baby girl would be placed upon the bridegroom's lap "in a ritual gesture of coitus" (Tindale 1977), and thereafter be known as *wajiyangu* 'promised one' or *darrwaanda maku* 'woman from the thigh'. Food and other gifts were due to her parents until she reached puberty when, if she had not been seduced or fought for by another man, she would go and live with her betrothed. Classificatory cross-cousins who were *warrawaanda* 'from a long way (by lineage)' or even *nguthunguthu marrwawaanda* 'from a bit close' could be married if no *wajiyangu* was available. Marriage of actual cross cousins was not allowed, and their non-marriageability was stressed by an Omaha skewing rule that shifted them up one generation, so that mother's brother's daughters, for example, are reclassified as 'little mothers' (*kunyaa ngamathu*).

Despite the social ideals embodied in the kinship system, the more powerful elder men, who were already in a position to accumulate wives through widow inheritance, often took 'wrong head' wives (such as nieces) as well. Tindale reports one man as having twelve wives—10% of the total Kaiadilt population! The more astute men won their younger brothers' support by "lending" them a wife, but dissatisfaction was widespread and led to many fights and ambushes. On one occasion this caused two men to flee for Allen Island with two raftloads of wives and children (Tindale 1962b).

1.3.4 Religion, ceremony, song and dance

Kaiadilt religion, in common with traditional Aboriginal religion throughout Australia, is based around the belief that a number of ancestral beings created the land, bird and animal life, and humans and their customs, before being transmuted into features of the landscape or "story places" which bear witness to these original world-creating exploits.

These "story places" or "sacred places" are known in Kayardild as *jungarrba dulka* 'big (i.e. important) place', *birdiya dulka* 'bad (i.e. powerful) place' or *niida dulka* 'same place (i.e. same as the creator being)'. Sometimes these places are directly useful to people, such as the freshwater springs at the foot of a cliff on Sweers Island, created when Seagull and Crane threw Rock Cod's liver there, and on Fowler Island, created when Nalkardarrawuru rose out of the ground there. Others are not directly useful but are visually significant, such as a small pool whose bottom contains different coloured ochres, said to be the scales of the Rainbow Serpent where he entered into the ground, or a small hole in the rock at *Waldarrakurdalayarrba* (lit. 'where the moon was speared'), said to be the scar where the spear entered Moon.

During this original epoch, known to the Kaiadilt as *yuujbanda* 'the first time, the old time', the boundaries between people, animals, and parts of the landscape were not clear: of Moon, in such a creation story, Pat Gabori remarked: *namu waldarra, dangkaa waldarra* 'he was not (just) the moon, he was a human moon'. These exploits are recounted in stories (some of which are included in the Texts in Part II) and honoured by reverence towards and protection of the "story places".

The major Kaiadilt ceremonies are individually oriented, celebrating the rites of passage of birth, betrothal, and circumcision. Compared to most parts of Australia there was little gender segregation during these: during circumcisions (the centrepiece of which is an exclusively male preserve in most of Australia) two old women knelt to form a table on which the initiate lay face up, and during birth (generally an all-female affair) the father and father-in-law of the baby were present. It is likely that the blurring of male/female ceremonial boundaries is a result of the Kaiadilt's small population, reducing the labour force available to undertake these ceremonies.

Birth was attended by real or classificatory sisters of the mother, who delivered the child and were known to it as *ngijinkinyilutharrba* 'giver of form to me'. The newborn child would be rubbed with a mixture of grease (preferably from a turtle or dugong) and fish blood to keep it warm, and placed in a small coolamon lined with the soft and antiseptic leaves of *marndiwa* (*Wrightia saligna*). The umbilical cord was cut by the child's future father-in-law.

Circumcision was carried out on young men as an admission to manhood (the Yukulta and Minkin of the adjoining mainland lay at the easternmost boundary of the circumcision and subincision[12] rites—Tindale 1974). Kaiadilt stories depict circumcision as part rite of passage, part punishment for a misdemeanour known to be irresistible to

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12 I have been unable to verify Tindale's (1977) claims that the Kaiadilt also practiced "a form of subincision".

young men: the spearing and cooking of young stingrays, reserved for the elders. Another story concerns a young man who ran away in fright from the circumcision ground (*bundalda*). He was pursued, caught and speared to death, along with his mother. Ever since, boys have been more scared to flee than to stay. Despite his cowardice, his memory is venerated because his death ensured the smooth running of the 'law' (*birrjilka*).

As day dawned after all-night dancing, initiates were circumcized with a stingray barb, whilst lying on a 'table' (*rulurulu*) formed by the backs of two old women. Initiates could not speak for several months until the excised foreskins (*binthu*), carried about by the old women in paperbark coolamons, withered "like a dried apricot" and were buried. During this period they could communicate terse requests for food, drink, etc., to their guardians, using different numbers of pinches (*baliyada*), but there was no auxiliary language comparable to Damin (see Hale 1973, 1982b) on Mornington Island. Initiated men were given names indicating the sequential order in which they had been circumcized, e.g. *ngariindarayarrba* 'circumcized (lit. 'broken') first', *warrkudaraayarrba* 'circumcized at daybreak'. The relations between an initiate and his circumcizer were also named, e.g. *ngijindaratharrba* 'my circumcizer, lit. breaker of me' and *ngijindaraayarrba* 'my circumcizee, lit. broken by me'.

Most singing was not ceremonial but personal, delivered pianissimo while reclining on one elbow, in a style quite different from that found anywhere in Australia: "sung in a constricted vocal manner, and ... quite unique in effect" (Moyle n.d.:3). Each individual had their own signature melody, to which new words were fitted as occasion demanded, often composed during the long silent vigils while waiting to spear fish, or "dreamed" at night. Grammatically complex constructions are prized in these songs, which tell of the day's hunting, of omens, or recall dead relatives who passed on their craft skills or other knowledge.

Kaiadilt dance is equally distinctive. There is a single style, a stomp unaccompanied by any music but the stomping of feet and the exclamation [ht] uttered in time with the dance steps. Sometimes individuals, sometimes groups participate; although each dance is supposed to have a story this is difficult to discern[13]. Lardil dance, by contrast, is highly imitative, and their varied repertoire of some 80 dances includes such scenes as wallabies being stalked, waterspouts, brolgas dancing, and waves washing against the rocks. The vast

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[13] But cf. Memmott 1982, page 66 "one dance did have a very simple format—the bush fire dance. Two men danced around supposedly causing a fire to start. They retreated and a line of women advanced representing the burning front of the fire. This two part sequence constituted the entire dance."

differences in song and dance are the most obvious cultural distinction between the Kaiadilt and the other Wellesley tribes.

As elsewhere in Australia, a name taboo applies after death (cf. Nash—Simpson 1981): the name of the deceased is replaced by the term *murdinyi* . Interestingly, this term is shared with Karrwa, from which it was probably borrowed, but not with the other Tangkic languages.

Funeral ceremonies were simple. "Bad people" were left unburied[14], others were laid in a grave (*kirrbira* or *rundurra)*. For a few days after death, their spirits (*ngabaya)* returned to slake their thirst from a baler shell left beside their grave; soon after, they travelled to a lonely bay on Sweers Island called *kanduwa dangkaa* 'blood person' (spirits were supposed to be red like blood). There they would importune people for a last meal of dugong or turtle before travelling on across the sea to *mawurru* , the spirit home in the east.

1.3.5 Dating the isolation of the Kaiadilt

Impressed by the apparent cultural and physical differences between the Kaiadilt, the Lardil and the mainlanders, Norman Tindale has suggested that "the Kaiadilt have long been removed from the main currents of culture change in the rest of Australia" and that "the ancestors of the Kaiadilt represent a type that has stood apart from the general flow of people who, over the last 50,000 years or more, have entered into Australia ..." (Tindale 1977:270).

A series of earlier studies had shown wide divergences in blood group (Simmons—Tindale—Birdsell 1962; Simmons—Graydon—Tindale 1964; Curtain—Tindale—Simmons 1966) and in immunoglobin markers (Curtain et al. 1972) between the Kaiadilt, the Lardil and the Aborigines of the nearby mainland. The unusual features were not of the kind one would expect from European or Macassan[15] admixture; rather, they were interpreted as "presumably brought into the area by migrants from the early Southeast Asian Neolithic complex"[16] in New Guinea

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14 Cf. Meggitt (1962: 322) on the Walbiri: "the body of a man who had a reputation as an adulterer, thief or homicide may also be denied the dignity of a platform burial".

15 Boats from the port of Macassar (now Ujung Pandang) in Sulawesi visited the northern shores of Australia to gather trepang since the seventeenth century (see e.g. MacKnight 1976) and in Arnhem Land there was some intermarriage with Aboriginal people.

16 The main differences lie in the 40% frequency among the Kaiadilt of B group blood, which is virtually absent from the mainland, with the exception of a pocket in the Barkly tablelands, and in northern Cape York, where New Guinea admixture is evident. In addition, the A group blood type is absent in Kaiadilt, but occurs with

(Curtain et al. 1972:152). As well as unusual blood group characteristics, most Kaiadilt infants have blond hair, which often persists into late puberty; "in this respect the Kaiadilt resemble the innermost Western Desert people" (Tindale 1977:255).

If these considerable genetic differences could be used to date the isolation of the Kaiadilt, this would be highly significant for comparative Australian linguistics, which has been able to group and subgroup the languages of Australia and make quite detailed reconstructions of "proto Australian" (Dixon 1980) or perhaps only "proto Pama Nyungan" (1.4) without ever knowing whether these proto languages were spoken 4,000 years ago or 40,000 years ago. But if, say, the isolation of the Kaiadilt were set at 3,000 years (as implied by Tindale and his colleagues), comparison of their language with Lardil and Yukulta, which evolved almost completely independently, would allow us to calibrate a rate of lexical change suitable for Australian languages, to estimate the antiquity of proto Tangkic, and thence, more approximately, of proto Australian.

Unfortunately, the genetic differences discussed above can plausibly establish a maximum, but not a minimum time depth, since it was the skewed nature of the original population, rather than any subsequent changes, that are largely responsible: "their gene frequencies, unique for Australian aborigines, have largely been produced by random genetic drift. *This evolutionary force is considered to have had its largest impact in the initial migrant generation* but to have continued on a later intergenerational basis" (Simmons—Tindale—Birdsell 1962:319; italics mine).

The maximum time depth, they argue, is set by the presence of the B group gene, which gradually diffused down from New Guinea from 4000 B.P. when the first dugouts crossed the Torres Strait. Allowing 500 years for this gene to reach the mainland opposite the Wellesleys, and hence the founding population, sets a maximum time depth of 3,500 years. This agrees with climatic evidence that the sea level in the Gulf of Carpentaria did not fall sufficiently to permit the colonization of the South Wellesleys until some 3500 BP.

But no minimum time depth follows from these facts, since the Kaiadilt could have migrated to Bentinck Island at any time after 3500 BP. So in the absence of genetic or climatic evidence, Tindale (1962a, 1977) proposes other arguments suggesting a long period of isolation.

The lack of a subsection system, for example, is taken as evidence for long isolation, since the Yukulta and Lardil have one. But McConvell (1985, 1990) has shown convincingly that the subsection system has only diffused out from Northwestern Australia relatively recently, and it

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high frequency in all mainland tribes, and in low proportion amongst the Lardil and Yangkaal.

is likely that the subsection terms only reached Mornington and the nearby coast in the last 100 years or so. The basic structure of the Kaiadilt kinship system is of the Aranda type, and virtually identical to that of Yukulta and Lardil (see Hale 1982b). The retention of this inherited Aranda system, despite the pressures for simplification that the small size of the population would have exerted, suggests a relatively short period of isolation.

Tindale also claims dramatic differences between the toolkits of the Kaiadilt and mainland tribes, but the work of Trigger (1987a) summarized above has shown this to be a general contrast between the Tangkic-speaking groups and the other mainlanders, rather than a specific feature of the Kaiadilt.

The most significant cultural differences between the Kaiadilt and nearby populations lie in their highly unusual song and dance styles. But there is no way of knowing how long these took to develop; it is likely that frequent killing off of the older people by famine and flood had removed the arbiters of cultural and linguistic tradition and accelerated the development of new styles. More than in literate communities, older people in traditional aboriginal societies are a repository of linguistic and artistic diversity, and of mythological memory. I believe that the precariousness of their survival in the South Wellesleys accelerated the process of cultural change, and led to the loss of a mythic record of how the Kaiadilt came to Bentinck.

The mainland people, on the other hand, do retain such myths: "one hears stories of how the Wa:nji tribe caused some of the Yukulta people to flee to Bentinck Island and many informants say the Bentinck Islanders were originally Yukulta people. It is hard to know what time in history these stories refer to or if there is any truth in them" (Keen 1972). It is also possible that the mysterious "Nyangga" tribe, the coastal neighbours of the Garawa who the latter claim died out quite recently[17], were the ancestors of the Kaiadilt and Yangkaal; this is supported by certain Karrwa/Wanyi loans in Kayardild (see below).

My own belief is that the Kaiadilt migrated to the South Wellesleys quite recently, probably in the last 500 to 1000 years. This is what traditional glottochronology would predict from the vocabulary differences: despite certain unusual developments, the language is

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17 "The Garawa say that originally the Nyanga [= Nyangga - N.E.] tribe occupied the coastal region of this area, and the Yanyula tribe occupied the country west of Garawa and Nyanga land. After the Nyanga tribe died out, the Garawa occupied their coastal area and the Garawa and Yanyula tribes continued to live in harmony with each other. The acquisition of coastal areas brought new pursuits (such as dugong hunting) to the Garawa people, and as their language did not have a vocabulary appropriate to these new activities Yanyula words were taken into the Garawa language to make good this deficiency." (Furby—Furby 1977: 1)

essentially a co-dialect with Yangkaal and Yukulta, suggesting quite a short separation. The peculiar linguistic features of the Tangkic languages must therefore predate the physical differences between the Wellesley populations: the Kaiadilt and Yangkaal differ widely in their blood groups and immunoglobin markers, but are very similar in grammar.

A final piece of evidence for a recent date of isolation comes from the presence in Kayardild of two loans from Garawa and Waanyi which are not found in the other Tangkic languages: the 'no-name' term *murdinyi* and the 'actual' kin suffix *-nganji* . The fact that these found their way into Kayardild but not Yukulta or Lardil (we cannot be sure about Yangkaal) suggests that Kayardild was until relatively recently the Tangkic language in closest proximity to Garawa and Waanyi.

1.4 The Tangkic family in Australian perspective

1.4.1 Overview of the Australian phylum

The consensus among most Australianists today is that all Australian languages are related, but at such a remote time depth that it will be possible to reconstruct "proto-Australian" only sketchily—probably the main outlines of the phonological system and pronominal morphology, possibly an ancestral noun class system, and a few score lexical items. Because of the remoteness of their connection many prefer to use the term "Australian phylum" rather than "Australian family". It is worth bearing in mind that the most conservative dates for the human occupation of Australia are now more than forty thousand years. Although there is no guarantee that modern Australian languages descend from those of the original colonizers, the possibility at least exists that Australian languages have had an extremely long time during which to diverge genetically.

Since the seminal classification of O'Grady—Wurm—Hale (1966), which proposed twenty-nine family-level groupings, there has been substantial comparative work on the nature, identity and number of these groupings, leading to a number of lumpings and reclassifications, but it seems unlikely that the number of language families will ever be reduced to much below ten. My own interpretation of our current understanding of the genetic picture is shown in Map 3.

Within the Australian phylum there is a concentration of genetic diversity in the north and north-west of the continent, where a large number of coordinate family-level groupings are found. The remaining seven-eighths of the continent is covered by the numerous members of the Pama-Nyungan family, whose relative similarity suggests a

time-depth of four to five millenia. The genetically diverse languages of the north and north-west are collectively known as "non-Pama-Nyungan".

There is no evidence that the complete set of non-Pama-Nyungan languages form a genetic entity opposed to Pama-Nyungan, and although many share similarities in pronominal forms (Blake 1988) these are probably shared retentions from proto-Australian.

On the other hand, there is growing morphological evidence for an intermediate-level subgrouping we may term the "Arnhem Family", which will probably include most of the non-Pama-Nyungan languages of Arnhem Land, subsuming the Gunwinyguan, Burarran, Iwaidjan, and Maran groups as well as several languages hitherto classified as isolates such as Umbugarla, Gagudju, Mangarrayi and Nunggubuyu.

Evidence for an intermediate-level "Arnhem family" comes from shared irregularities in noun class systems (Heath 1987, Evans in prep), in verbal morphology (Alpher—Evans—Harvey to appear; Green to appear) and lexicon. Within this grouping it may be possible to recognize a further subgroup, which we may call "core Arnhem", on the basis of certain regularities in pronominal morphology. Some of this evidence will be discussed below in connection with the genetic position of Tangkic.

The Pama-Nyungan family was first proposed in 1966 by O'Grady, Wurm and Hale on lexico-statistical grounds, but it has taken another twenty-five years for substantial comparative evidence to establish its genetic reality convincingly; in the process there have been a number of revisions to its membership. The main diagnostic features of Pama-Nyungan are

(a) a distinctive set of pronouns, set out by Blake (1988).
(b) laminalization (to lamino-dentals or lamino-palatals) of inherited apicals in word-initial position (Evans 1988).
(c) distinctive case forms for the ergative/instrumental (-ŋku ~ -lu), and locative (-ŋka ~ -la).
(d) a set of conjugationally distinct verbal suffixes and other verb stem augments (Dixon 1980[18], Alpher 1990).

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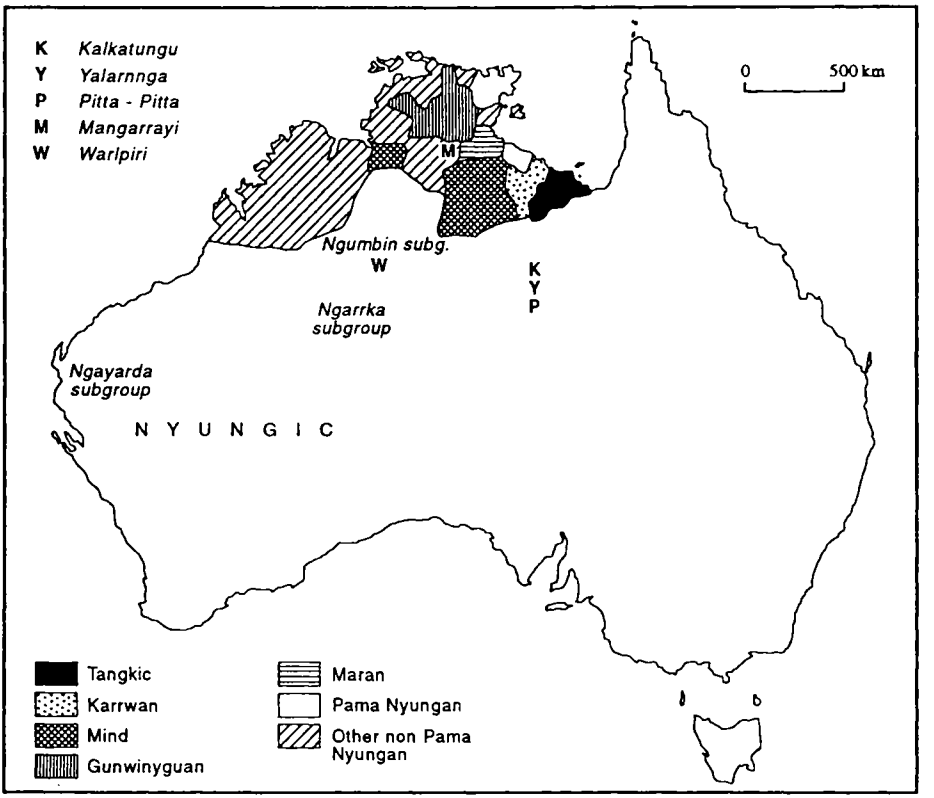
[18] The reconstructions of verbal and nominal morphology contained in Dixon (1980), though attributed by him to proto Australian, are more plausibly viewed as proto Pama-Nyungan.



Map 3. Main genetic groupings of Australian languages

There are also strong typological differences between Pama-Nyungan and non-Pama-Nyungan. In general, non-Pama-Nyungan languages are head-marking, make use of prefixation as well as suffixation, have four or more noun classes, have weakly developed systems of subordination, and make only optional use of core case marking. Pama-Nyungan languages, by contrast, are generally dependent-marking (though many use auxiliaries hosting clitic pronouns), use suffixation only, lack noun classes, have a tightly organized and rich system of case marking, are generally organized ergatively for nouns, and have a rich set of subordinate clause types, often using switch-reference, antecedent case agreement, or syntactically-defined pivots or some combination thereof.

It is only along the eastern edge of the Pama-Nyungan / non-Pama-Nyungan border that these correlations break down, and where languages are found whose classification as Pama-Nyungan or non-Pama-Nyungan has been revised.

Yanyuwa, for example, was originally classified by O'Grady et al. as a family-level isolate, but has been shown by Blake (1988) and Evans (1988) to be Pama-Nyungan on the basis of its pronouns, case forms, and the presence of initial laminalization; Blake has shown it should be grouped with Warluwarra, Wakaya and some other languages in the discontinuous Warluwarric group within Pama-Nyungan. Typologically, however, it is in many respects a typical non-Pama-Nyungan language, with elaborate prefixing morphology on verbs and noun-class prefixes to nouns, although it does possess a participializing suffix with cognates in many Pama-Nyungan languages.

Karrwa and Wanyi together form a group that is transitional between non-Pama-Nyungan and Pama-Nyungan in its pronoun forms, though typologically resembling Pama-Nyungan. The languages of the Jingiluan group, though clearly non-Pama-Nyungan, typologically resemble Pama-Nyungan languages in having suffixing morphology, but recent work by Blake (1990) shows this to have been a historically recent development: verbal suffixes, for example, have developed by suffixing an old auxiliary verb which bore prefixes.

1.4.2 Position of the Tangkic languages

The Tangkic languages lie at the eastern edge of the Pama-Nyungan / non-Pama-Nyungan border, and their genetic affiliations have been revised several times over the last two decades.

The balance of evidence now suggests that the Tangkic languages have their closest genetic affiliations, as shown by comparative phonology and morphology, with the non-Pama-Nyungan languages of Arnhem Land. But subsequent intensive contact with Pama-Nyungan languages of the North Central Desert region, specifically with those of

the Ngumpin and Ngarrka groups, has led to a typological assimilation to the dependent-marking, Pama-Nyungan type. Typologically they have come to resemble Pama-Nyungan languages in being dependent-marking and entirely suffixing; proto-Tangkic was, additionally, ergative in its case alignments, like the vast majority of Pama-Nyungan languages.

There has also been a certain amount of borrowing of vocabulary and morphology, so that although the percentage of shared vocabulary does not exceed 10% with any non-Tangkic group, the highest percentages (around 6-8%) are with Pama-Nyungan languages. Fuller discussion of lexical cognates is in Evans (in prep b).

1.4.2.1 Typological comparisons. Typologically the Tangkic languages—especially Yukulta and what we can reconstruct of proto-Tangkic—have very little in common with their closest relatives in Arnhem Land, and in fact could pass for typical Pama-Nyungan languages. These similarities are summarized here without substantial justification, which is given in comparative asides to the relevant sections of the grammar.

Although the grammar of all modern Tangkic languages is extremely unusual, the most plausible proto system was not atypical for a Pama-Nyungan language: suffixing, agglutinating, basically ergative, with free word order and a rich array of case inflections. Like many Pama-Nyungan languages, in particular those of the Northern Nyungic area, it may also have had an auxiliary which followed the first constituent and carried information about tense and mood, as well as subject and object bound pronouns. The "modal case" which is such a distinctive feature of Kayardild and Lardil was not a feature of proto-Tangkic, nor was "verbal case" present in other than incipient form. However, the use of case agreement on complement clauses, governed by the case of a main-clause antecedent, was more clearly present than in modern Kayardild or Lardil; again this is characteristic of many Pama-Nyungan languages and is particularly well-developed in the northern Nyungic area.

The main peculiarity of proto-Tangkic was a system of detransitivized constructions triggered by certain tense, mood and polarity conditions characteristic of "lowered discourse transitivity" (Hopper—Thompson 1980). In irrealis desideratives, for example, transitive clauses had an ABSolutive:DATive case frame rather than the usual ERGative:ABSolutive frame.

The typological resemblances between Tangkic and two Pama-Nyungan subgroups are also worth mentioning. The Ngayarda subgroup (Pilbara district, W.A.), like Kayardild/Yangkaal and Lardil, has become morphologically accusative from an ergative ancestor (Dench 1982). This is undoubtedly a recent and completely independent development. Closer at hand, Kalkatungu (Blake 1979b), Yalarnnga (Blake 1971) and Pitta Pitta (Blake 1979a), spoken to the south of the

Tangkic subgroup, are all basically ergative but with accusative constructions triggered by various tense/mood conditions (see Blake 1987), a feature they share with Yukulta and proto-Tangkic[19].

This raises the question of whether the common presence of tense-triggered non-ergative constructions in Tangkic, Kalkatungu and Pitta Pitta is due to some genetic affiliation, especially since all are aberrant in a number of ways (pronouns, lexicon and case forms)[20]. But there are no other similarities between Tangkic and these languages (and cognacy rates lie in the 2-3% range), which makes this hypothesis unlikely. More probable is a previous period of contact and structural diffusion of the relevant constructions.

1.4.2.2 Comparative phonology and morphology. Lexical items and typological features are readily diffusable, particularly in Australia, and to get a more reliable idea of the genetic affiliations of Tangkic we need to turn to subgroupings established by regular sound changes, as well as aspects of morphology that are resistant to borrowing, such as pronouns[21]. The comparative data that is decisive in grouping the Tangkic languages as non-Pama-Nyungan are the pronoun forms, and the retention of initial apical stops and nasals that laminalize in Pama-Nyungan. I shall also mention the significant lack of various nominal and verbal morphemes that are extremely widespread in Pama-Nyungan.

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19 In fact there is a corridor of languages with tense-dependent nominal forms running south from the Tangkic group through Kalkatungu and Pitta Pitta to the closely related dialects Gurnu and Bāgandji (Hercus 1982) on the Darling River. In these last two languages, however, special pronominal forms are involved, rather than the alternative case frames found in Pitta Pitta and Kalkatungu; a Gurnu example is *wadhu* 'I-past', *gadhu* 'I-future' (Wurm—Hercus 1976). A third variation on the same functional theme is found in Karrwa (Furby—Furby 1977: 51-2). Here past tense is signalled by a morpheme *yi* which may follow the verb stem or replace the final vowel of one pronoun in the clause; future tense is marked by a clitic *-dja*, optionally attached as either a suffix or a prefix to one word (of virtually any type). Both past and future marking, it seems, are half-frozen tense clitics. The closely related language Wanyi (Breen to appear) has a similar system.

20 It is interesting that Capell (1979) suggested that Tangkic, Kalkatungu and Karrwa are each isolate groups in the Gulf area.

21 Heath's (1978) classic book on "intense lexical diffusion" in Arnhem land mentions diffusion of nouns (including kin terms) and verbs, but not pronouns, although he makes no specific reference to this.

PRONOUNS

Blake (1988) reconstructs distinct non-Pama-Nyungan and Pama-Nyungan pronoun sets, which I draw on below. A number of features clearly identify the Tangkic languages with the northern set[22]:

- Non-singular second person roots in *ki-* (e.g. Kayardild *kirra* 'you two', *kilda* 'you pl.') correspond to roots in *ku-/ki-* throughout non-Pama-Nyungan. In Pama-Nyungan languages the reconstructed second person dual root is *nyuNpalV* and the second plural root is *nyurra* .

- Non-singular third person roots in *pi-* (e.g. Kayardild *pirra* 'they two', *pilta* 'they pl.') correspond to roots in *pu-/pi-* throughout non-Pama-Nyungan. In proto-Pama-Nyungan the third person dual root was *pula* and the third person plural was *jana* .

- The second person singular root shows a characteristic alternation between oblique forms based on *ngum-* (e.g. Kayardild *ngumban-* 'your') and nominative forms based on *nying-* (e.g. Kayardild *nyingka* 'you'). This alternation is widespread in non-Pama-Nyungan languages, e.g. Dalabon *nying* 'you sg NOM', *ngu* 'you sg OBL'; Miriwung *nyengu* 'you sg NOM' , *ngung* 'you sg OBL'. In Pama-Nyungan the second singular root is **ngin* (Dixon 1980:342-3) without the nominative/oblique alternation found in non-Pama-Nyungan.

- The first person non-singular exclusive root *nya-* . This is preserved only in Lardil, e.g. *nyali* 'we plural exclusive in harmonic generations', *nyarri* 'we dual exclusive in harmonic generations'; note the resemblance of these forms to the Gunwinyguan language Dalabon, whose first exclusive plural and dual forms are respectively *nyel* and *nyerr*. The other Tangkic languages have analogically reshaped the non-singular exclusive forms to begin with *ng* like all other first person forms. Blake reconstructs **nyi-rrV* as the non-Pama-Nyungan first exclusive non-singular root, but *nya-* is also found (e.g. Ngandi first plural exclusive *nyarr-* . The proto Pama-Nyungan form is **ngana* .

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22 Capell (1979: 481), discussing the Yukulta pronoun system, noted that "the singular pronouns are of EA ('Early Australian'—N.E.) origin, ... and the third person links with the Northern Kimberleys", citing Ngarinyin. Capell's notion of 'Early Australian', though not altogether clearly defined, correlates well with later definitions of non-Pama-Nyungan. Basically, it is taken to reflect an "early" linguistic type which remained in the north but was supplanted in the south by the later spread of "Common Australian", which corresponds roughly to "Pama-Nyungan."

- The third person singular root is *ni-* , reflecting non-Pama-Nyungan **nu-* . The Pama-Nyungan forms are **nyu-* '3 sg masculine' and **nyan-* '3 sg feminine'.

In addition to these formal similarities between Tangkic pronouns and the non-Pama-Nyungan set in general, there is a further specific similarity with a number of languages of the Roper River region (Table 1-2): the alternation between dual *-rr-* and plural *-l-* throughout the Tangkic pronoun paradigms (see 5.2.1) is parallelled in Alawa and Mara (Maran), Dangbon and Ngalakan (Gunwinyguan), and Mangarayi, for which affiliations have been proposed to both Maran (Merlan to appear) and Gunwinyguan (Alpher—Evans—Harvey to appear)[23].

Table 1-2. Reflexes of *rr* (du): *l* (plu) opposition in Arnhem pronominal systems

Language	Pronominal category			
	2 Du	2 Plu	3 Du	3 Plu
Tangkic				
Kayardild, Yukulta	*ki-rr-a*	*ki-l-ta*	*pi-rr-a*	*pi-l-ta*
Lardil	*ki-rr-i*	*ki-l-i*	*pi-rr-i*	*pi-l-i*
Maran				
Alawa (intrans. prefixes)	*wu-rr-*	*wu-l-*	*yi-rr-*	*yi-l-*
Mara (genitive)			*pirriwu*	*piliwu*
Gunwinyguan				
Ngalakan (nominal suffixes)			*-pirra?*	*-pulu*
Dangbon	*no-rr*	*no-l*	*pa-rra?-*	*pa-la?-*
	[free forms]		[verb prefixes]	
Mangarrayi[24]			*-w/purr*	*-wurla*

Although *rr* appears more widely as a plural formative in pronouns throughout non-Pama-Nyungan, the opposition of dual *rr* to plural *l* is

[23] Sources for the non-Tangkic languages are Sharpe (1972) for Alawa, Heath (1979) for Ngandi, Heath (1981) for Mara, Merlan (1982b) for Mangarrayi, Merlan (1983) for Ngalakan, and my own field notes for Dangbon.

[24] Number/case suffixes on kin terms; nominative forms given here. There is also a more general opposition between dual *rr* and plural *rl* in the free pronoun system—see Merlan (1982b: 102).

confined to the languages above[25] and suggests that Tangkic belongs to an intermediate level grouping within a tentative "Arnhem family", which would include Gunwinyguan, Maran, Mangarrayi, and Tangkic. This correlates fairly well with the distribution of the reflexive formative *-yi* and the reciprocal formative *-nyji / -nyju* (see below), and of certain vocabulary items. However, the other resemblances between these families and Tangkic are minimal and a more definitive picture must await more detailed reconstructions of these groups.

RETENTION OF INITIAL LAMINALS.
Pama-Nyungan languages have neutralized the contrast between initial apicals and laminals, while non-Pama-Nyungan languages maintain the contrast (see Evans 1988 for details):

proto-Australian	non-Pama-Nyungan	proto-Pama-Nyungan
**t*	*t*	**TH*
**TH*	*TH*	**TH*
**n*	*n*	**NH*
**NH*	*NH*	**NH*

Inherited initial apicals in Tangkic fail to undergo initial laminalization, providing further evidence for excluding Tangkic from Pama-Nyungan. Examples of Tangkic members of these correspondence sets are given below.

pA *t* > Tangkic *t* :
pA * *taa-* 'copulate with' > pT **daa-ja* 'ibid.', e.g. Kayardild *taa-ja* .
pA * *tulk* 'tree, wood' > pT * *tulk* 'place, ground, earth'[26],
e.g. Kayardild *tulk-a* 'place, ground, dirt'.

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25 The one exception to this statement is the presence in Yanyuwa of a dual noun class marker *rri-* and a plural noun class marker *li-* . Given the lack of any similar forms elsewhere in Yanyuwa, in the other languages of the Warluwarric group, or indeed anywhere in Pama-Nyungan, and Yanyuwa's proximity to the Maran languages, it seems most likely that these are a borrowing. However, we cannot rule out the possibility that Yanyuwa is the last refuge of a morpheme series lost everywhere else in Pama-Nyungan. This would imply that Pama-Nyungan was more closely related to the Arnhem Land family than to other non-Pama-Nyungan languages; see Evans—Jones (to appear) for further arguments in support of this.

26 In defence of this semantic shift see Evans (1992c), where I give widespread parallels of 'tree' > 'firewood' > 'fire' > 'hearth' > 'place'.

pA *TH* > Tangkic *TH* :
pA * *THalaNH-* 'tongue' > pT * *jal-* , e.g. Kayardild *jal-wija* 'poke out tongue', Lardil *jal-da leman* 'tongue'.
pA * *THu(u)-* 'scold' > pT * *thuu-ja* 'swear at, scold', e.g. Kayardild *thuuja*
pA * *THaku* 'left hand' > pT * *thaku* 'left hand', e.g. Kayardild *thaku*

pA *NH* > Tangkic *NH*
pA * *nya-* 'first exclusive non-singular root' > pT * *nya-*
pA * *nyiN-* 'second singular nominative pronoun root' > pT * *nying-* (see discussion of pronouns above)

pA *n* > Tangkic *n* :
pA * *na-* 'burn (intr.)' > pT * *naa-ja* , e.g. Kayardild *naa-ja* 'burn (intr.)', Lardil *netha* .
pA * *ni-* 'sit' > Yukulta *ning-karrngii-ja* 'sit with arms round legs', cf. *karrngi-* 'keep, have'
pArnhem * *nij-* 'name'[27] > pT * *nith-* , e.g. Kayardild *nith-* 'name'.

OTHER MORPHOLOGY

Dixon (1980) reconstructs a considerable amount of specific morphology for Australian languages: distinctive verbal "conjugation markers", some verbal inflections (such as imperative *-ka* for some conjugations) and a suite of distinctive case suffixes including ergative *-lu ~ -ngku* , locative *-la ~ -ngka* and probably also an ablative *-ngu* . Although he attributes these morphemes to "proto-Australian" it seems more likely that they characterize Pama-Nyungan or some slightly more inclusive genetic entity, since (with the exception of imperative *-ka*) there are no clear cases of any of these morphemes outside Pama-Nyungan[28]. The forms nearest to the Pama-Nyungan "conjugation markers" are certain verb inflections in the Gunwinyguan languages, which also have a complex system of conjugations. Alpher—Evans — Harvey (to appear) argue that the Pama-Nyungan system of "conjugation markers" arose through analogical extension of certain tense forms still preserved in Gunwinyguan verbs; in some cases the present form served as an analogic base, and in other cases the past perfective form.

The only unambiguous member of the "Pama-Nyungan" verbal set to occur in Tangkic is the imperative suffix *-ka* , found with transitive verbs in Yukulta. Otherwise the verbal inflectional morphology of

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[27] Since this item has not previously been proposed as a proto-Australian form, here are some non-Pama-Nyungan cognates: Gudanji *nija*, Karrwa and Wanyi *niji* , Pungu-Pungu and Wajiginy *nij* , Mangarrayi *rni* , all of which mean 'name'.

[28] Cf. Heath (1990: 403): "from a methodologically conservative point of view, we should really take Dixon's 'Proto-Australian' reconstructions as Proto-Pama-Nyungan, since the descriptive materials used are from Pama-Nyungan languages."

Tangkic is too innovative to be useful for comparative purposes: there is a new conjugational contrast between *th* and *j* conjugations, with membership mostly determined phonologically, and the system of tense / mood / aspect marking has been developed quite recently from subordinate verb forms inflected for complementizing case (see 7.3). To make matters worse, many of the verb roots most useful in diagnosing genetic affiliation, such as the perception, stance, and simple motion verbs, are simply absent from Tangkic.

If we allow evidence from Minkin, which appears to have had more conservative verbal morphology than Tangkic proper, there are some indications of cognacy with the verbal system of Gunwinyguan rather than of Pama-Nyungan (see Evans 1990a), but the difficulties of interpreting bad and scanty nineteenth century sources with any phonetic precision or morphological details weaken the force of this evidence.

Table 1-3. Non-Pama-Nyungan cognates of Tangkic reflexive *-yi* and reciprocal *-nyju-/-nyji*

Language	Reflexive	Reciprocal
Maran		
Wamdarang	*-i-*	*-yi ~ -ji*
Alawa	*-ndji-*	*-ndji-*
Burarran		
Burarra	*-ya*	*-tji-ya*
Gunwinyguan		
Jawoyn	*-ji- / -yi-*	*-ji- / -yi-*
Ngalakan	*-ji-*	*-ji-*
Rembarrnga	*-ti-*	*-ti-*
Ngandi	*-(y)i-*	*-ydhi-*
Warray	*-yi-*	*-ji-*
Nunggubuyu	*-i-*	*-nyji-*
Mangarrayi	*-yi- / jiyi / -nyjiyi-*	*-yi- / -jiyi / -nyjiyi-*

On balance, then, the evidence from case suffixes and verbal inflection is of little use in determining the genetic affiliations of the Tangkic languages.

By contrast, two verbal derivational suffixes—reflexive *-yi* , and reciprocal *-nyju-* (Kayardild/Yukulta) or *-nyji-* (Lardil)—are matched by

cognates in a number of non-Pama-Nyungan languages of Arnhem Land. Note that a number of languages have merged these categories into a single reflexive/reciprocal, which may be based on either original category, or combine exponents of both. The cognate forms are given in Table 1-3.

1.4.2.3 Wider relationships: summary. Morphological and phonological evidence clearly establishes the Tangkic languages as non-Pama-Nyungan: they have a number of diagnostic non-Pama-Nyungan pronoun roots, and have failed to undergo the initial laminalization that occured in Pama-Nyungan. What is more, there is further evidence from the morphology—in particular the pronominal number forms, and the reflexive and reciprocal suffixes—and to a lesser extent from the lexicon, that their closest non-Pama-Nyungan languages are those of the Arnhem family.

On the other hand, there is evidence of lengthy contact with Pama-Nyungan languages of the northern Nyungic group—in particular, of the Ngumpin and Ngarrka subgroups of north Central Australia. This evidence comes from direct morphological borrowing, such as of the PROPrietive suffix, a substantial number of lexical items characteristic of Northern Nyungic languages, and from the typological convergence of the Tangkic languages away from the non-Pama-Nyungan head-marking, prefixing type to a fairly typical Pama-Nyungan type that is heavily dependent-marking, exclusively suffixing, morphologically ergative, and makes use of a second-position auxiliary.

The most plausible scenario that is compatible with these linguistic facts would see proto-Tangkic speakers originally living just to the south of the Arnhem Land escarpment, possibly along the upper reaches of the Roper River. This would make them adjacent to the non-Pama-Nyungan languages of Arnhem Land to which they are most closely related genetically, but also not far from the northern Nyungic languages with which they later came into lengthy contact, possibly after moving a short distance to the south. Later they would have moved downriver to the Carpentaria coast, and southeastwards along it as far as the Wellesleys.

As for the chronology of these proposed migrations, the relative internal homogeneity within the Nyungic group of languages suggests they have only been spoken over their current area fairly recently—possibly over the last two thousand years or so, although we are unable to say much more than this until more detailed comparative work has been carried out within Nyungic. It has also been suggested by McConvell (to appear) that the Ngumbin languages have moved northwards fairly recently. All this points to the period of Tangkic-Nyungic contact as being no more than a couple of millenia ago, and *a*

fortiori to the Tangkic occupation of the Carpentaria coast as being relatively recent.

There are also several pieces of non-linguistic evidence linking the Tangkic peoples with groups in Arnhem Land and to the west and southwest. Recent genetic studies (White to appear) have shown the people of Mornington to lie at the southeasternmost cline of a population extending along the Carpentaria coast from Arnhem Land. Lardil myths say their ancestors came from the south west. Kaiadilt and Lardil, like various Central Australian groups, have infantile blondness, and Lardil and Yukulta song styles "suggest a closer musical affinity with desert songs further south than with songs on Cape York Peninsula" (Moyle n.d.). Finally, the presence of the circumcision and subincision rites links the Tangkic groups to the circumcising and subincising tribes to their west (see Map 1).

1.5 Recent history

1.5.1 The early European explorers

Although the Kaiadilt were the last group of coastal Aborigines to come into full contact with Europeans (in 1948), they were afforded their first glimpses relatively early[29]. In 1802 Mathew Flinders anchored off Sweers Island for lengthy repairs, and soon afterwards encountered a group of "Indians" near Allen Island. Tindale (1962a) assumes these were Kaiadilt, but their possession of a wide-meshed net, probably a dugong net (which the Kaiadilt lacked), suggests they were not Kaiadilt but mainlanders or Forsyth Islanders (cf. Memmott 1982). Over the next few months Kaiadilt were seen on both Sweers and Bentinck Island, but they eluded further contact.

Macassan praus had been sailing for centuries from Sulawesi to North Australian shores, where they gathered trepang, turtle-shell and other commodities (MacKnight 1976). Before Flinders' voyages it is likely that they occasionally landed in the South Wellesley Islands, when the north-westerlies blew them beyond their usual destination in Arnhem Land[30]. But the lack of Macassan influence on the Kaiadilt's material

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[29] These few pages cannot do justice to the colourful history of the South Wellesleys. Other accounts are in Tindale (1962a), Cawte (1972) and Dymock (1973) but the most thorough is Memmott (1982).

[30] On Fowler Island Flinders saw a squared piece of teak and several skulls, and on Bentinck Island he saw stumps of at least twenty trees which had been felled with an axe, and the remains of an earthenware jar. "He inferred that a ship from the East

and ceremonial culture, the lack of Macassan or Malay loan words[31], their unfamiliarity with the food, tobacco and pipes offered to them by later visitors like Roth (1901), and with the eating and preparation of beche-de-mer, plus the general unreceptiveness of the Kaiadilt to strangers, all suggest minimal contact. This contrasts with the well-documented interactions of Aborigines and Macassans in Arnhem Land.

Following Flinders' visit, a number of other European vessels landed on Sweers Island, and a township, Carnarvon, was temporarily established there, soon growing to a place of some importance, with a hotel, store, Customs House, gardens, a steamer service to Burketown and some 35 residents. Although there were some contacts, the Kaiadilt mainly kept to Bentinck Island. In 1870 Normanton was established on the Norman River, attracting away most of the population of Carnarvon, and within a few years the Kaiadilt were able to resume their traditional occupation of Sweers Island, now stocked with large herds of cattle, sheep and goats.

Around 1916, a certain McKenzie arrived on Bentinck Island, built a hut near the mouth of the Kurumbali estuary, and tried grazing sheep. He is still remembered by older Kaiadilt, who tell of him riding across the island with dogs, shooting any Aborigines he saw and causing at least 11 deaths. They also remember him abducting and raping young girls, who later gave birth to light skinned babies (see Kelly—Evans 1985). Later he moved to Sweers Island, where he ran sheep and goats and built a kiln for lime, which he sold around the southern gulf. When he eventually left, the Kaiadilt returned to Sweers Island, once more a rich hunting ground with its sheep and goats. One boy received the conception name *thungalngumuru* 'black goat' (Tindale 1962b).

1.5.2 The Mornington Mission attempts contact

For over 120 years the Kaiadilt had periodically lived within a few miles of Europeans, but had managed to escape substantial contact, and to live

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Indies had been wrecked within the previous two or three years, part of the crew had been killed and others might have gone elsewhere upon rafts constructed after the manner of the natives." (Tindale 1962a). Tamarind trees seen on Fowler Island in 1866 (Landsborough 1866, cited in Memmott 1982) also suggest that Macassans camped there. Campbell MacKnight (1972) cites various accounts by Macassans, showing knowledge of the Wellesley Islands, called *Pulona Tallumbatua* (or, in Malay, *Pulau Tiga*) 'the three islands', *Pulona i Salasa* ('Disappointment Island' or 'Tuesday Island') or *Je'ne Tattunggenga* ('Upside down water').

31 None of the Macassan loans listed in Walker—Zorc (1981) or in Evans (1992b) have Kayardild cognates.

a completely traditional life. But in the 1920s the Mornington Island Presbyterian Mission began attempts at systematic and friendly contact.

Young Lardil couples were dropped off on Bentinck Island to spend their honeymoons making friends with the Kaiadilt (a vivid account is in Lardil man Dick Roughsey's autobiography "Moon and Rainbow"). Several of the young Lardil, particularly Gully Peters and his wife Cora, were talented linguists, and already knew Yangkaal; they soon picked up some Kayardild. Various kin relationships were established at this time. For example, Cora Peters was adopted as Willy Rujurujungathi's daughter, and hence as the sister of his son Darwin.

But by late 1927 the missionary, Rev. Wilson, decided to suspend these overtures, as the Kaiadilt had been stealing from the Lardil's camp. Once again the Bentinck Islanders resumed their traditional life, over their whole territory. During the 1920s their population, which had been badly reduced by McKenzie's murdering sprees, rose to about 120 (Tindale 1962b). Whether or not this record population was the cause, conflict between groups intensified, with many men killed in ambushes as they came ashore at night. In 1940 Minakuringathi escaped from a fight by rafting to Allen Island with seventeen companions, three of whom drowned en route.

Between 1942 and 1945 the southern Gulf experienced severe drought, vegetable foods ran scarce, fishing was poor, and famine and fighting reduced the remaining population to 87. In 1945 Gully Peters, bringing gifts of dugong and water, persuaded a small party to visit Mornington Island for a month, and they returned impressed. Food problems continued, and in 1947 Mission Superintendent McCarthy found 42 more people camped on Sweers, near two large perennial wells, and evacuated them to Mornington.

In February 1948 those still on Bentinck were beset by another catastrophe, when a cyclone reached the Southern Wellesleys, causing widespread damage and stacking up the sea level. Low Bentinck Island was flooded, the sand wells were ruined, and the Kaiadilt were finally persuaded to move to Mornington Island.

1.5.3 On Mornington

At the Mornington Mission the Kaiadilt found themselves a despised minority, and for many years lived as a small closed community, dwelling in flimsy shelters on a beach facing towards Bentinck Island, begrudged the use of Lardil fishing grounds. The effects of stress and famine persisted for nearly a decade, and many died soon after reaching Mornington. At first all children were stillborn, or perished within weeks because their mothers could not give milk. This opened a five or six year gap in the the fabric of children's peer groups, so important for

the transmission of language. At the same time, children and even teenagers were put straight into "dormitories" where they were forbidden to speak their language—although it was used for preaching and converting. Departures from the expected European code of behaviour were rigorously punished—boys would be ridiculed by being forced to wear girls' clothing. Despite attempts to match the Lardil and Kaiadilt kinship systems, few married outside the small Kaiadilt community.

Tremendous psychological strains were produced by the combined effect of the crises on Bentinck Island, their unprepared contact with the outside world, the denial of their culture by the missionaries and by the Lardil, the stress of living on another group's land, and perhaps worst, the consistent insinuation that their beloved Bentinck was "no good country", compared to "rich" Mornington Island. Although some Kaiadilt briefly visited their own country with Tindale in 1962, this was for many old people the only such occasion between 1948 and the 1980s, and homesickness produced profound suffering; many of the older people suffered from psychological disorders. Dr John Cawte, a psychiatrist who briefly visited Mornington in 1967 and wrote a book, "Cruel, Poor and Brutal Nations", purporting to analyse the psychological problems there, labelled the Kaiadilt "the sickest society" and speculated about possible genetic, constitutional and culture-internal causes. Cawte's claims are too complex[32] to be refuted satisfactorily here, but the factors mentioned above would seem sufficient to explain the depression he noticed among the Kaiadilt.

By the 1970s things began to improve. Bentinck Islanders had built new fishtraps near the mission, and their skill as hunters and fishermen was openly acknowledged. The young Kaiadilt proved themselves steady workers, and the children began doing well at school. By the time of my first visit in 1982 a disproportionately high number of teacher aides, high school students and school prizewinners were Bentinck Islanders, because "never mind the B.I.s all come from myall country, all the parent bin bossem for go to school".

However, the Kaiadilt remain much poorer than the other groups on Mornington Island, and until recently have lacked the means to return to their home country when they wish. In 1984 a community boat was at last obtained; an outstation has been proposed as a solution to the widespread fighting and alcoholism, and first steps in this direction have now been taken.

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32 Cawte's study would not be worth mentioning, had it not spawned a series of increasingly sensational and inaccurate secondary articles. The title of one (Calhoun 1972) speaks for itself—"Plight of the Ik and Kaiadilt seen as a chilling possible end for man". It is full of such giddy leaps of inference as "I could find no mention (in Cawte's book—N.E.) of laughter, normal or pathological. Perhaps the Kaiadilt don't laugh."

Following the enactment of Queensland legislation allowing the transfer of land ownership to traditional groups, the Kaiadilt had their traditional ownership recognized under Australian law for the first time in 1994 (see Evans 1993b), but many social, political and environmental problems remain: the difficulties of the "Back to Bentinck" movement in persuading people to leave the educational and medical facilities on Mornington, the feeling that tourist facilities on Sweers Island are an intrusion onto their land, and potential ecological problems (especially the endangering of large sea animals) associated with proposed new mining and port developments on the adjacent mainland.

1.6 The Kayardild language today

1.6.1 The linguistic milieu

The Kayardild language is being abandoned in favour of English with frightening rapidity, so that within less than forty-five years of substantial European contact there are no fully fluent speakers under fifty. Before we can understand this phenomenon, we must understand the overall linguistic and social position on Mornington Island. There are basically four groups of people on Mornington:

(a) The LARDIL, who are the traditional owners and residents, and number about 500. Mission contact since 1919, and in particular the infamous "dormitory system" that operated till the early 1950s, has severely reduced the number of speakers of Lardil. A full profile of the varieties of Lardil spoken by different age groups is impossible here, but the following oversimplified picture will give the reader some idea.

Perhaps five old people still speak Lardil fluently, but even they mostly use English. Those from forty-five to seventy know quite a bit of Lardil, often including a number of traditional songs, but their grammar is simplified, their vocabulary restricted, and language mixing is frequent: a typical utterance, combining Lardil, English and pidgin elements is *hey thabu, I never savvy your binngen bin waa!* 'hey brother, I didn't know your wife had gone'. For those below thirty knowledge of Lardil is restricted to a few formulaic expressions like *kunaatha* 'goodbye' and *nyingki waa* 'hello', basic lexicon (some kin and body part terms, taboo words like *dulda* 'shit', and some plant, animal and fish names), plus swear words like *ngamadaan* 'mother fucker'. As contacts with Kriol[33]-speaking groups to the west increases,

[33] Kriol is the generally-accepted term for a creolized variety of English, showing heavy substrate influence from Aboriginal languages, that is spoken by perhaps

Kriol is having an increasing influence on the English of younger speakers. The types of English spoken by these various groups are summarized in Table 1-4[34].

(b) About 100 "MAINLANDERS"—Aborigines who have come to Mornington from a number of places, especially Ganggalida (Yukulta), Garawa and Waanyi people from the adjoining mainland, and Wik Mungkan from Aurukun. Although some of these people still know traditional Aboriginal languages (particularly the Aurukun people), the internal fragmentation of this group, the small number of speakers of each language, their relative Europeanization (most paid jobs not held by Europeans are held by "mainlanders") and perhaps their remoteness from their traditional territory, mean that the traditional languages of this group are peripheral to the linguistic network of Mornington Island. Most speak a form of Aboriginal English relatively close to Standard Australian English; with Mornington Aborigines they use "Mornington English".

(c) About 100 EUROPEANS, who hold most of the paid jobs, wealth and power. All speak Standard Australian English; none speaks any Aboriginal language fluently, although most know a few of the Lardil words that have become part of Mornington English.

(d) The 150 KAIADILT, minus those residing on Bentinck Island and on the mainland at a given time. Those over 60 speak fluent Kayardild; with non-Kaiadilt they may use some English or Pidgin words. Those between 35 and 60 speak Kayardild with varying degrees of fluency, but are more at home in English, if younger, and a mixture of Kayardild and Pidgin, if older. The main activity domains where Kayardild is used are hunting, navigation, food gathering, scolding, swearing and joking.

15,000 Aborigines across northern Australia. See Sandefur—Sandefur (1981) for a grammatical description.

34 The table is of course very oversimplified. Most speakers use several of these in different registers; in general speakers use a form close to Standard Australian English with Europeans, and a form close to "Mornington English" with other Aborigines. Aboriginal speakers regard all four as varieties of "English"; I do not want to tackle here the question of their exact status as Pidgin, Kriol or Aboriginal English.

Table 1-4. Varieties of English spoken on Mornington Island

Language Variety	Speakers	Main characteristics
Standard Australian English (SAE)	Europeans, some mainlanders	
'Mission English' - Aboriginal English close to SAE	Mission-educated Lardil (40-70) and Kaiadilt (40-50)	Most irregular English forms retained (e.g. 'I went'). Slow, careful delivery. Main phonological difference is devoicing of English
/z/		e.g. [bɪsi] for /bɪzi/
'Mornington English' (MIE): Aboriginal English with increasing influence from Kriol (a North Australian creole)	Younger speakers, all Aboriginal groups	Many lexemes from Lardil Kriol markers *bin* 'past', *-im* 'transitivity marker'; Kriol pronouns e.g. *minyu* 'we inclusive' Segmental phonology like SAE but distinctive intonation pattern. More rapid delivery than Mission English
'Pidgin'	Very old Lardil, Kaiadilt over 50	Kayardild/Lardil phonology retained, e.g. *mawurndaj(a)* for 'Mount Isa', *thistha* for 'sister, nurse'. Tense, transitivity markers and pronouns as for Kriol Idiosyncratic calques into Pidgin of traditional words, e.g. nose-woman 'effeminate' from K *kirrmaku* .

In general, young females have a much better command of Kayardild than young males (and an equal or better command of English), so that several women in their thirties can speak Kayardild quite well, while men commanding that degree of fluency are typically over 40 (see Evans to appear). This reflects the differing social affiliations between sexes: males spend most of their time in peer group gangs, while females spend considerable time each day with the older women, and usually camp with the widows while menstruating.

Those below thirty all know some language (considerably more than their Lardil counterparts), and can carry on brief, joking conversations, with simplified grammar. Interestingly, very young children (under four) still learn Kayardild, but seem to abandon it once they become aware of their low social status as outsiders on Mornington Island. This milieu has created a peculiar sociolinguistic situation.

English of one form or another is the lingua franca, the primary prestige language, and the dominant language of all groups but the Kaiadilt.

Lardil, despite its dearth of fluent speakers, is the most prestigious and locally appropriate aboriginal language, and is the source of nearly all Aboriginal words in Mornington English[35]. Speakers from all four groups will know at least some Lardil terms and use them in situations where Mornington English is suitable.

Kayardild is the numerically dominant aboriginal language, and heard daily by everyone on Mornington Island, but, like the Kaiadilt themselves, has a very low prestige[36]. Although the Kaiadilt are often praised by other groups for "keeping their language strong", there is virtually no-one outside the Kaiadilt community who can speak it[37], and it has not contributed any words to Mornington English. Even young Kaiadilt, when speaking English, will use Lardil rather than Kayardild terms—when fishing, for example, they will use the Lardil term *libarn* 'queenfish' rather than the Kayardild *karwarrk*. Kayardild words are reserved for "Kayardild speaking" language situations.

Besides the general low status of the Kaiadilt, the main social factor disfavouring the use of Kayardild is what might be called "local

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35 The remainder come from Kriol, e.g. *banji* 'brother in law, distant kinsman' (ultimately from English "fancy man") or, in the case of a few seafaring terms, from the Torres Strait languages (e.g. *wap* 'harpoon').

36 Among both mainlanders and Lardil, attitudes towards the sound of Kayardild exceed the usual amused condescension and mockery that are common in the Gulf Region towards the sound of other languages. Trigger (1987b: 233), discussing the mocking of other languages at Doomadgee, states: "The sound of the Bentinck Islanders' speech is particularly singled out for such ridicule. People usually refer to, or mimic, this speech to indicate that the speakers appear to be choking on the sounds. Such ridicule is part of a view which accords low status to the general society of the Bentinck Islanders; they are known by a derogatory term and are patronised and pitied by some for being primitive and unsophisticated."

37 During my fieldwork I only met one Lardil, the late Cora Peters, who spoke good Kayardild, although a number knew a few basic expressions. Her deceased husband, Gully, is said to have known the language 'straight through', preached in it every week, and seems to have introduced in this way several Christian religious terms into Kayardild, as extensions of existing phrases: *ngakinmaand* 'our father, God' (literally 'begetter of us') and *mirraa ngunguk* 'good news, the Gospels' (literally 'good story').

inappropriateness". On my second expedition to Bentinck Island in July 1984, I was struck by a dramatic change in speakers' abilities: the whole age profile of apparent fluency shifted downwards by about ten years, so that forty year olds, who on Mornington always "mix in" English, suddenly began speaking Kayardild "straight through", with exuberant fluency. It seems that, as elsewhere in Australia, language and land are inextricably interlinked: the appropriate locale allowed people to speak their language without the inhibition they feel on Mornington. If this is true, the establishment of an outstation on Bentinck Island would be the most effective step towards language maintenance.

1.6.2 Lardil and English influence on Kayardild

Despite the prestige of Lardil, its effect on Kayardild has been limited to the lexicon; particularly flora and fauna terms, implements, and some kin terms like *yurrwardin* 'cross-cousin' and *nginngin* 'daughter's daughter'. There is no evidence of grammatical influence, or even of borrowing of particles. Words that are borrowed typically have the "Mornington English" rather than the traditional Lardil pronunciation—for example, Lardil *dulnhu* 'month fish', though phonologically quite compatible with Kayardild, has been borrowed as *durnyu* or even *dunyu*, which are the Mornington English pronounciations. Combined with the lack of grammatical influence, this suggests that borrowing has been indirect, through Mornington English, rather than directly from Lardil. This is quite understandable given the virtual absence of Kayardild-Lardil bilinguals from both communities, and the lack of opportunities to hear Lardil spoken.

Mornington English, with its many Kriol-like properties, has had more influence. The particles *namu* (< Eng. "no more") 'negative', *baymbay* (< Eng. "bye and bye") 'lest, might (unpleasant)', *marrbi* (< Eng. "might be") 'perhaps, might (hypothetical)', *biniji* (< Eng. "finished") 'do to completion' and *na* (< Eng. "now") are all used in most types of spoken Kayardild. *Garra* (Eng. "gotta") 'got to, have to' and *bin* (Eng. "been") 'past' are also common, though more characteristic of younger speakers. These particles are beginning to displace much of the modal case system and verbal inflections for tense, aspect and mood.

Word order, relatively free in traditional Kayardild, is in younger speakers predominantly SVO, and case marking of objects is being abandoned, although "semantic" case suffixes are retained. These trends are all typical of Australian Aboriginal languages under English influence (see, for example, Schmidt (1985) on Dyirbal and Bavin—Shopen (1985) on Warlpiri).

The adoption of English lexemes is also widespread, both with new entities like *mani* 'money', *duug* 'dog', *jikuul* 'school', *bija* 'photo, film, camera', and *mijinari* 'missionary, priest', and with entities for which Kayardild terms already exist, like *baya* 'fire' (traditional Kayardild *kaburrb)*. Often English loans and their Kayardild doublets will be juxtaposed for added force or humorous effect, and there are short-lived fads in which the two are compounded: for about a week in 1982, 'fire' was only referred to as *kaburrba-baya* or *baya-kaburrb*, always provoking great mirth.

1.6.3 New coinages in Kayardild

Some speakers consciously resist these influences, and coin new Kayardild terms like *dul-jawind* [ground-runner] 'car', *miburkurriind* 'mirror' (literally 'that by which the eye sees itself '), and *wadubayiind* 'tobacco' ('that by which the smoke is bitten'). Most new formations of this type are nominalizations: see 11.2.

Some new coinages or extensions of traditional terms are widely established, with no English rivals, e.g. *thardawankawuru* (*thungald*) [shoulder-branch having (thing)] 'aeroplane', *malaa* [sea water] 'beer', *wirrind* [shell] 'money', *jaburrnganji* [sole, flounder] 'thongs', *dalurudaluru* [thundercrack-having-REDUP] 'gun', *ngamathuwalad* [mother-many] 'cow', *kathaa* [nest] 'bed, blanket'.

1.6.4 Language variety described in this grammar

The variety of Kayardild described in this grammar is conservative, largely lacking in English influence. In Kayardild terms it is *yulkaand* 'eternal, as it should be', *junku* 'straight' and *juldajuld* [bone-bone] 'strong, fluent'. Although the more Anglicized variety is interesting in its own right, the traditional variety is disappearing rapidly, is what the Kayardild themselves value most highly and wanted me to study, and is a necessary prerequisite to understanding the processes which are forming the modern variety. However, I have included scattered commments on more modern varieties.

1.7 Previous investigations

The first European to record anything of a language in the South Wellesleys was Mathew Flinders in 1802, who describes the following "interview" with a group of "Indians" on Allen Island: (Flinders' party

and the islanders) "proceeded together, hand in hand" towards Flinders' boat, but "they stopped halfway, and retreating a little, the oldest made a short harangue which concluded with the word *jahree*, pronounced with emphasis; they then returned to the rafts, and dragged them towards their three companions, who were sitting on the furthest rocks" (Flinders 1814). The word Flinders noted was probably *jariija* 'run away'.

Roth (1901), on a visit to Bentinck and Sweers Islands, made fleeting contact with the Kaiadilt, and also noted two words spoken by an old woman: "the subject of abject terror, she talked, yelled and gesticulated, every now and then pointing in a direction where we subsequently found the preceding night's camp, with the words '*parra huli, parra huli*,' rapidly repeated, the aspirate (unusual in the North Queensland vocabularies known to me) being distinctly articulated" (Roth 1901: 505-6). None of my informants recognize these words, and there is no aspirate in Kayardild; the most likely utterance is *bada yuliij* 'try in the west' as she warned her countrymen. The initial *y-* in this environment is often reduced to a hiatus and could have been heard as an aspirate.

The most important work on the Kaiadilt has been the series of studies by Norman Tindale. Although they focus primarily on ethnography and population genetics, they contain a large number of Kayardild words, transcribed reasonably accurately: place names, personal names (he gives a complete genealogy of the Kaiadilt from early this century to 1960), various social terms, and names for a number of implements. He has also collected a number of texts and songs, including the only extant text by a Yangkaal speaker (Part II, Text 12). Tindale is continuing to work on Kayardild ethnography and myth.

Others who have investigated aspects of Kaiadilt culture are Paul Memmott, who has compiled a detailed material culture checklist, Alice Moyle who has recorded a number of songs, discussed further in Kartomi (1984), and Frank Woolston who has published some Lardil and Kayardild botanical terms (Woolston 1973).

Stephen Wurm spent two months working on Kayardild in 1960, and made a comprehensive series of tapes exemplifying most aspects of Kayardild grammar. Both Wurm (1972) and other investigators (O'Grady—Voegelin—Voegelin 1966) make occasional references to this data, but no detailed analysis was ever undertaken.

Hale, although primarily interested in Lardil, also made field notes on Kayardild and Yangkaal, providing the only grammatical information we have on Yangkaal other than a brief mention by Capell (1942), who recorded a little (under the name "Nemarang") on a boat between Mornington and Karumba. In addition, Hale recorded from Lardil man Gully Peter a version of the "Moon story" in which one character speaks Yangkaal.

Keen, in her grammars of Yukulta (1972, 1983), points out the mutual intelligibility between Yukulta and Kayardild, but gives no examples of the latter. Wurm, Tindale, Memmott and Hale generously made their field notes and tapes available to me, and this material was most useful in suggesting lines of inquiry into half-forgotten areas of grammar and vocabulary which may otherwise have passed me by.

Chapter 2
Phonology

2.1 Phoneme Inventory

Kayardild's phoneme inventory, comprising seventeen consonant and six vowel phonemes, is displayed below. First the phonemic, then the orthographic, representation is given for each phoneme. In the rest of this chapter I shall cite words in practical orthography, italicized, except where there are special reasons to use the phonemic symbols.

Table 2-1: Kayardild phonemes

CONSONANTS

	bilabial	apico-alveolar	apico-post-alveolar (retroflex)	lamino-dental	lamino-palatal	dorso-velar
stop	p (b)	t (d)	ʈ (rd)	t̪ (th)	c (j)	k (k)
nasal	m (m)	n (n)	ɳ (rn)	n̪ (nh)	ɲ (ny)	ŋ (ng)
lateral		l (l)				
rhotic		r (rr)	ɻ (r)			
semi-vowel	w (w)				j (y)	

VOWELS

	front	back
high	i (i)	u (u)
	iː (ii)	uː (uu)
low	a (a)	
	aː (aa)	

Although I argue in 2.3 that a final short *a* is underlyingly present in the phonemic representation of Kayardild words that phonetically end in a stop in citation form, I shall omit it from the phonemic representations in this section since word-final position is an important determinant of surface phonetic form.

Typically for an Australian language, Kayardild has parallel series of stops and nasals, each with six points of articulation, and no voicing distinction for stops. Following the usual Australianist conventions (e.g. Dixon 1980) these series are called bilabial, apico-alveolar, apico-postalveolar (retroflex), lamino-dental, lamino-palatal and (dorso)-velar. Australianists generally group these into three pairs: *peripherals* (bilabials and velars), *laminals* (interdentals and palatals) and *apicals* (apico-alveolar and apico-retroflex). A number of phonotactic and morphophonemic generalizations make use of these natural classes. For example, the apical contrast is neutralized word-initially and at compounding and reduplication boundaries, and both sets of laminals have a number of parallels, such as being the conjugation-marking element of verbal inflections, and alternating with apicals in some nominal stems.

Stops are generally voiceless after sonorants and voiced elsewhere, except that *th* and *k* tend to a voiceless realization in all positions. This is discussed in more detail in 2.1.2.1.

In addition to the stop and nasal series, there is an apico-alveolar lateral, two rhotics (a trill *rr* and a retroflex approximant *r)* and two semi-vowels. I shall use the terms *liquid* for the class containing laterals and rhotics, and *sonant* for the class including nasals, laterals and rhotics.

There is a simple triangular vowel system with a length distinction.

For typographic convenience, and to make this material more accessible to non-linguists, a practical orthography using only roman symbols is adopted throughout this grammar, except for those parts where strictly phonetic differences are being discussed. This practical orthography is essentially that employed by Hale et al. (1981) for Lardil. Note in particular that

(i) The velar stop is represented by *k* , to avoid confusion between /ŋ / (*ng* in this orthography), /ŋ / (written *ngk*) and /nk /, written *nk* .

(ii) The interdental stop is written *th* , at the suggestion of Kayardild speakers literate in English.

(iii) Elsewhere stops are written with voiced symbols: *b, d, rd,* and *j*. While the choice of voiced vs voiceless orthographic symbol represents the commonest allophone for the relevant place or articulation, the exact distribution of voicing is more complex and is discussed in 2.1.2.1.

(iv) To avoid cumbersome strings of digraphs in homorganic nasal plus stop clusters, the symbol *n* is used before *th* and *j* as well as before *d* : phonemic /n̪t̪ /, /nʈ / and / n t / thus give orthographic *nth* , *nj* and *nd* . As the

contrast between the above nasal phonemes is neutralized in these positions, no phonemic distinctions are lost by this convention.

(v) Vowel length is represented by double letters, e.g. phonemic /a:/ is orthographic *aa* .

(vi) Retroflexion is not contrastive initially and is not marked, even though there is phonetic retroflexion here and initial apical stops condition retroflexion in final vowels of preceding words. At reduplication and compounding boundaries, where the same neutralization occurs, usage alternates between writing a hyphen and no digraph, and no hyphen but a digraph: thus [ɖibiɖibi] 'rock cod', phonemically /ʈipiʈipi /, may be written orthographically as *dibi-dibi* or *dibirdibi*.

(vii) The phonemic sequence /ɹʈ/ is written *rld* to distinguish it from phonemic /ʈ/, written *rd* non-initially.

(viii) Final /a/ is written in the citation forms of words (except in this section and in the language name itself), while in texts it is written or omitted according to what is pronounced, serving as a sort of punctuation device.

2.1.1 Minimal pairs

The following minimal (or near minimal) pairs illustrate critical phonemic contrasts between consonants in intervocalic and, where relevant, initial positions:

	initial	intervocalic
/t/ - /ʈ/	(neutralized)	/watu/ *wadu* 'smoke' /kaʈu/ *kardu* 'father-in-law'
/n/ - /ɳ/	(neutralized)	/ŋanki/ *nganki* 'temple' /ŋaɳki/ *ngarnki* 'on the beach'
/t/ - /t̪/	(no initial /t/)	/patinta/ *badind* 'carrying' /pat̪int/ *bathind* 'coming from the west'
/n/ - /n̪/	(neither found initially)	/kuʈalanaŋku/ *kurdalanangku* 'will not spear' /kuʈalan̪ar/ *kurdalanharr* 'might spear'
/t̪/ - /ʈ/	/ʈaɹiʈ/ *jarij* 'swallow' /t̪a:ɹiʈ/ *thaarij* 'bring back'	/maʈar/ *matharr* 'nail fish' /maʈari/ *majarri* 'navel'

/ɳ/ - /ɲ/ (no initial /ɳ/)	/waraɲar/ *warranyarr* 'might go'	
	/waɻaɳar/ *waranharr* 'might send'	
/ʈ/ - /ʈ/	/ʈulant/ *duland* 'fat'	/ɳaʈa:/ *nathaa* 'camp'
	/ʈulant/ *thuland* 'descending'	/ɳaʈa:/ *nardaa* 'bullrush'
/r/ - /ɻ/ (no initial /r/)	/kuriʧ/ *kurrij* 'see'	
	/kuɻiʧ/ *kurij* 'wash'	
/r/ - /t/ (no initial /r/)	/ŋara-pan/ *ngarra-ban* 'we two (exc) too'	
	/ŋata-pan/ *ngada-ban* 'me too'	

Phonemic contrasts between short and long vowels are illustrated by:

/i/ - /i:/	/ʈiʧar/ *dijarr* 'dorsal fin; nail'	/kuriʧu/ *kurriju* 'will see'
	/ʈi:ʧar/ *diijarr* 'sat'	/kuri:ʧu/ *kurriiju* 'will be seen'
/a/ - /a:/	/maliɲ/ *Maliny* (place name)	/waraʧari/ *warrajarri* 'didn't go to'
	/ma:li/ *maali* 'swamp turtle'	/wara:ʧari/ *warraajarri* 'wasn't gone to'
/u/ - /u:/	/purmaʈ/ *burrmath* 'duck'	
	/pu:rmaʈ/ *buurrmath* 'fart'	

2.1.2 Consonantal allophones

2.1.2.1 Stops and nasals. Stops and nasals are produced by identical types of occlusion, differing only in the open velum characteristic of nasals.

Bilabial *b* requires closure of the lips in careful speech, but in more casual styles may be followed by a labial offglide, or lenited to [w]:

'white'	*balarr*	[balar]	careful speech
		[b^walar]	casual
		[walar]	casual

Velar *k* is normally a dorso-velar stop, but is fronted to [k^j] before *i*. Similarly *ng* is fronted to dorso-palatal [$ŋ^j$]:

'sister'	*wakath*	[wakaṯ]
'clap on water'	*kijand*	[kɹiṯant]
'spirit'	*ngabay*	[ŋapa͡i]
'night'	*ngimiy*	[ˈŋɹime͡i]

Apico-alveolar *d* is produced by placing the tongue tip slightly behind the alveolar ridge further back than in English, closer to the position of an Indian retroflex. For apico-domal *rd* the tongue tip is curled back sometimes to pre-palatal position.

Although *th* and *j* are most commonly stopped with the blade of the tongue, justifying the label "laminal", their exact articulation varies greatly from speaker to speaker, particularly with *th* . Dugal Goongarra usually produced *th* by protruding the tip of the tongue between his teeth in an apico-interdental, whereas Darwin Moondoonuthi made them by touching the blade of his tongue against his post-alveolar ridge, i.e. as a lamino-postalveolar; perhaps significantly, his front teeth were lacking. Similarly some speakers stop *j* with the blade of their tongue, others with the tip, although the passive articulator is in both cases the hard palate. In stressed position, and in word-final position, lamino-dentals may be affricated, so that *th* may be pronounced [t̪ᶿ].

This wide individual variation suggests that other articulatory and/or auditory features are as important as place of articulation, and that any articulatory gesture that reproduces such features is acceptable. A long period of closure, affrication, and intervocalic devoicing characterize *th* , and closing diphthongs in preceding vowels characterize *j*.

Because preceding sonants devoice all stops and tend to reduce the length differences between them, removing the normal cues distinguishing *d* from *th* , the contrast SON + *d* vs SON +*th* is often hard to hear. However, many speakers, particularly women, give a trilled release to apical sonant + stop clusters: *nald* 'head' [naltʳ], *nalda wuuj* 'pass the (fish)head' [naltʳawoːɖ], *wurand* 'food' [woɹantʳ], *ngarnd* 'beach' [ŋaɳtʳ]. Dissimilation prevents this before following *rr* : *waldarr* 'moon' may be [waltar] but not [waltʳar]. Those speakers allowing whispered vocalic release retain this with final apical sonant+stop clusters, and voice the stop: *ngarnd* 'beach' [ŋaɳɖʳ̬], *nald* 'head' [naltʳ̬]. Laminal sonant+stop clusters never have a trilled release: *kurunth* 'barramundi' [kuɹuṉṯ].

2.1.2.2 Laterals, rhotics and glides. *l* is always a voiced lateral. Intervocalically and before peripherals and apico-alveolars it has an apico-alveolar articulation; interdental and palatal allophones are found before the respective stops and nasals:

gloss	orthographic	phonemic	phonetic
'descending'	*thuland*	/ṯulant/	[ˈt̪ʊlɐnt]
'raft'	*walbu*	/walpu/	[ˈwalpʊ]
'bush oven'	*walk*	/walk/	[ˈwalk]
(place name)	*Kalthuriy*	/kalṯuɹiy/	[ˈkal̪t̪ʊɹe͡i]
'muscle'	*wurdalji*	/wuʈalʲi/	[ˈwoɖɐl̪ɟɪ]

rr is an apical trill finally and preconsonantally; intervocalically it is usually a tap but in declamatory speech, particularly among women, it is trilled:

gloss	orthographic	phonemic	phonetic
'tree'	*dabarr*	/tapar/	[ˈɖapar]
'dugong'	*bijarrb*	/pijarp/	[ˈbiɖarp]
'ear'	*marrald*	/maralt/	[ˈmaralt]

r is an apico-alveolar approximant initially. Between high vowels the closure is greater and it approaches fricative quality, as it does word-finally, and initially before *i*. Tindale (1962a: 261) exaggerates this effect, transcribing *rara* as ['ra:rθ]. In all positions it is slightly palatalized before *i*. Between low vowels some speakers, e.g. Dugal Goongarra, pronounce it as a retroflex flap, neutralizing the distinction between *r* and *rd*.

'south'	*rara*	/ɹaɹa/	[ˈɹaɹ]
'egg'	*kuru*	/kuɹu/	[ˈkʊɹʊ]
'east'	*riya*	/ɹiya/	[ˈɻe͡i]
'young girl'	*nguriwa*	/ŋuɹiwa/	[ˈŋʊɻi͡ʊ]
'red ant'	*barakurra*	/paɹakura/	[baɹɐkur ~ ˈbaɽɐkur]

Where the syllable which *r* initiates contains a liquid (*rr* or *l*) in its coda, *r* is usually realized as [ɽ]:

'place name'	*Birarrki*	/piɹarki/	[ˈbiɽarki]
'curly'	*kururrji*	/kuɹurɖi/	[ˈkʊɽorɖi]
'place name'	*tharurrki*	/t̪aɹurki/	[ˈt̪aɽorki]
'Morning glory cloud'	*warilda*	/waɹilta/	[ˈwaɽilt]
'heap of food'	*baralji*	/baɹalʲi/	[ˈbaɽalɖi]
'pike eel'	*ralkaralka*	/ɹalkaɹalka/	[ˈɽalkɐˌɽalk]

For some older speakers (e.g Pluto) *r* may be realized as either [ɹ] or [l] before stops, including *rd*. Other speakers have only the [ɹ] pronunciation.

'boy, male'	*wurlkara*	/wuɻkaɻa/	[wɷlkeɹ ~ wɷɻkeɹ]
'hand'	*marlda*	/maɻta/	[mɐlt ~ mɐɻt]

Historically *r* is a merger of the phonemes /ɹ/ and /l/, distinct in proto Tangkic and preserved in Yukulta:

gloss	pT / Yukulta	Kayardild phonemic	Kayardild phonetic
'get, fetch'	/kilaṯa/	/kiɻaṯa/	[kiɻɐṯ]
'red ant'	/paɻakura/	/paɻakura/	['baɻɐkur]
'get up'	/lapiṯa/	/ɻapiṯa/	['ɻapiɖ]
'sweat'	/ɻaŋara/	/ɻaŋara/	['ɻaŋɐr]

In Lardil and Yangkaal as well, /ɹ/ and /l/ have merged, with the lateral allophone predominating initially and before retroflex stops and nasals, and the rhotic elsewhere.

Historic /lt/ clusters are in Kayardild phonemic /ɻt/, phonetically [ɻt]. In the intervocalic environment to which they are restricted, they differ phonetically from the simple retroflex stop /t/, phonetically [ɖ], in three ways:

(a) there is a longer retroflex onglide and a shorter preceding vowel before the cluster;

(b) the stop in the cluster is voiceless, conditioned by the preceding sonorant, whereas the simple retroflex stop is voiced

(c) [ɻt] allows a trilled release as [ɻt^{r}]:

'corkwood'	*murdu*	/muɻu/	['moɖɷ]
'three'	*burldamurr*	/puɻtamur/	['bɷɻt$^{(r)}$emor]

An alternative phonemicization of this sequence would be as /lṯ/, as implied by the orthographic representation *rld* (originally used in Hale's and Klokeid's Lardil orthographies, and retained in the Kayardild orthography to avoid the cumbersome *r.rd*). This implies that *l* assimilates to retroflex articulation before *rd*, which is not implausible: *l* occurs before every other stop and would condition devoicing and trilled

release of the following stop. However, there is morphological evidence for the /ɹʈ / phonemicization, since /ɹ/ (phonetically [ɹ]) appears before non-apical suffixes—cf. /maɹ-ʈa/ 'hand-NOM', /maɹ-iya / 'hand-LOC', /maɹ-mira / 'handcraftsman'.

w is a labio-velar glide. Word-initially before high vowels it is sometimes elided, leaving following *i* somewhat rounded but no residual effect on *u* :

'food'	*wuranda*	/wuɹanta /	[ˈwoɹɐnt] ~ [ˈoɹant]
'stay'	*wirdija*	/wiʈiʈa /	[ˈwɐʲɖɪɖ] ~ [ˈɐʲɖɪɖ]

y is a palatal glide. It too may be elided initially, before *i* only:

'star'	*yarrangkarra*	/jaraŋkara /	[ˈjɐrɐŋkɐr] ~ [ˈɐrɐŋkɐr]

A few words display alternations between initial *r* and *y* before non-back vowels. In all cases the next syllable begins with *j* and the word is trisyllabic. Examples are *rijurlda* ~ *yijurlda* 'carpet snake' and *rinjinda* ~ *yinjinda* 'engine', an English loan. There is also one word, similar in its phonological shape, in which *r* alternates with *w*: *rijangka* ~ *wijangka* 'in hiding'.

2.1.3 Vowel allophones

The six vowel phonemes display considerable allophonic variation, which depends on the place of articulation of flanking consonants, the degree of stress, and phonemic length. In general, following retroflex consonants rhotacize and slightly lengthen and centralize preceding vowels, following palatals front them, following interdentals shorten them, following trills lower them and preceding *w* rounds them. Decreasing stress centralizes them, and phonemic length lowers high vowels.

2.1.3.1 Short vowel allophones. *i* has the allophones

[i]	in stressed positions before all consonants but apicals and laminodentals, and always before *y* (except in word-final *iy*).
[ɪ]	with main stress before alveolars except *rr* , and before laminodentals; also with secondary stress except before *rr* and retroflexes; finally after *rr*
[e]	before *rr* : *birr* [ˈber] 'they two'

[ɐˠ] before retroflexes: *birdiy* [ˈbɐˠɖe͡i] 'bad'

[əˠ] (slightly rounded centralized rhotacized mid vowel) between *w* and *rd*, with the preceding *w* contributing the rounding and the following *rd* the rhotacization: *wirdij* 'stay' [ˈwəˠɖɪɖ]

u is generally less rounded and more centralized than cardinal vowel number 8. Its allophones are

[ɷ] in most stressed positions, and in final open syllables: *ngudij* [ˈŋɷdɪɖ] 'throw', *kardu* [ˈkaɖɷ], 'fa-in-law'

[o] before *rr* and sometimes before *w*: *barakurr* 'ant' [ˈbaɹakor], *ngulmuwa* 'deadly' [ŋɷlmowɐ].

[oˠ] before retroflex consonants: *murdu* [ˈmoˠɖɷ] 'corkwood', *kuru* [ˈkoˠɹɷ] 'egg'

[oˠ˃] (rounded centralized rhotacized mid back vowel) between *j* and *rd*: *jurdiij* [ˈɟoˠ˃ɖeːɖ] 'set of sun'. The phonetic difference from *i* in this environment is very slight and only heard in the most careful speech: the *i* phoneme is less rounded. Cf. *jirdawath* 'salivate' [ˈɟəˠɖɐwaṯ].

a is [a] in most environments, reducing to [ɐ] when unstressed: *balanangku* [ˈbalɐˈnaŋkɷ] 'won't spear', *ngada kurrij* 'I see' [ˈŋadɐˈkɷrɪɖ]. Departures from these values are

[æ ~ a] before palatals: *majarri* 'navel' [ˈmæɟarɪ ~ ˈmaɟarɪ].

[aˠ] or [ɐˠ] before retroflexes (which may initiate a new word): *nardaa* 'bulrush' [ˈnaˠɖaː], *birdiya dangkaa* 'many men' [beˠɖɪjɐˠ ɖaŋkaː].

In contrast to many Australian languages, e.g. Diyari (Austin 1981c), *a* is not rounded after *w*, so that *wangarr* 'song' is [ˈwaŋar] rather than *[ˈwoŋar].

Values before glides will be dealt with in 2.1.3.3.

2.1.3.2 Long vowels. *ii* and *uu* are lower than *i* and *u* in corresponding environments, so that they are normally realized as [eː] and [oː] respectively: *miid* 'lobster, louse' [meːd], *kuuk* 'sore' [goːk].

Long *aa* has a similar quality to *a* when not followed by a palatal: *maali* 'swamp turtle' [maːli]; *malaa* 'sea' [malːaː].

Before palatals long vowels tend to have a palatal offglide. This is most marked with *aa* e.g. *baaj* 'bite' [baːʲɟ], but also possible with *uu*::

duujind 'younger brother' ['do:ɖɪnt] ~ ['do:ʲɖɪnt]. Similarly *ii* varies between [e:] and [e:ʲ] before *j* : *diij* 'sit' ['de:ɖ] ~ [de:ʲɖ] . That this diphthong is conditioned by the following palatal segment is shown by the reversion to a pure long vowel before a non-palatal, e.g. *wuund* 'giving, giver' [wo:nt], *diind* 'sitting, sitter' [de:nt].

As mentioned above, short vowels are somewhat longer, notated [v˙], before retroflexes. All phonemic long vowels are longer than this, and are notated [v:], and phonemic long vowels before retroflexes are even longer (notated [v:˙], e.g. *buurnd* 'sandfly' [bo:˙ɳt].

2.1.3.3 Vowel–Glide–Vowel sequences. As well as phonemic long vowels, Kayardild has a number of phonemic short vowel–glide–short vowel sequences, some of which are realized as phonetic long vowels or diphthongs. The realization of short vowel–glide–long vowel sequences never gives rise to diphthongs as it always involves two distinct syllables, and is therefore not treated here.

The vowel–glide–vowel analysis of phonetic diphthongs has been amply justified in many Australian languages[1] and only sketchy arguments will be given here. The main reason is phonotactic, allowing the generalization that no two phonemic vowels occur contiguously. Certain phonetic differences from phonemic long vowels also exist.

Of the eighteen possible permutations of 3 vowels x 2 glides x 3 vowels, sixteen are attested: this excludes the sequences *iyu* and *uwi* .

The sequences *iyi* and *uwu* , where vowel and glide have the same locus, are articulated with a distinct onset before the second vowel in some formations, such as reduplications: *bukuwuku* ['buku,wuku] 'timothy vine, dodder laurel' and *kirrmiliyirrmili* ['kɪrmili,jɪrmili 'pig's foot vine, portulac'. In other morphological environments, such as before suffixes, there is no clear glide onset before the second vowel, but there is a slight decrescendo: *maku* 'woman, wife', *-wuru* 'having', *makuwuru* 'married, having a wife' ['makuuɹu . That the resultant sequence (here transcribed [uu] rather than [u:]) is not treated phonologically as a long vowel is shown by its failure to attract stress, which should appear on long vowels (2.6).

Of the remaining fourteen permutations, ten are realized as regular vowel–glide–vowel sequences; apart from the lowering of *i* before *y* and variations in the second vowel conditioned by stress and following segments, vowels have their expected values:

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[1] See, for example, Dixon 1972 for Dyirbal, Donaldson 1980 for Ngiyambaa, Austin 1981a for Diyari.

Sequence		Example		Gloss
iya	[ejɐ]	*kiyarrngk*	[ˈkeˌjarŋk]	'two'
iwa	[iwɐ]	*kiwalath*	[ˈkiwɐˌlaṯ]	'churn up'
iwi	[iwi]	*jiwirrij*	[ˈɖiwiˌriɖ]	'spin round'
aya	[ajɐ]	*ngayarndathu*	[ˈŋajɐɳˌɖɐṯɷ]	'cross cousin'
ayu	[ajɷ]	*kayulumbuliij*	[ˈkajɷˌlɷmbɷˌleːɖ]	'speak wildly'
awi	[awi]	*jawij*	[ˈɖaˌwiɖ]	'run'
awa	[awɐ]	*bawath*	[ˈbaˌwɐṯ]	'blow (wind)'
uyi	[uɹi]	*kuyild*	[ˈguˌɹilt]	'file stingray'
uya	[uja]	*kuyalkamarnjuth*	[ˈgujalkɐˌmaɳˌɖuṯ]	'back-bite'
uyu	[uju]	*kuyurru*	[ˈgujorɷ]	'wind-pipe'

The sequences *ayi* , *awu* , *uwa* and *iwu* are phonetically diphthongs; the second vowel component is usually somewhat longer.

ayi	[aɪˑ]	*bayi*	[ˈbaɪˑ]	'fight'
awu	[auˑ]	*thawul*	[ˈṯauˑl]	'son-in-law
uwa	[oaˑ]	*kuwalkulath*	[ˈkoaˑlˌkɷlaṯ]	'spin round'
iwu	[ʃuˑ]	*mariwu*	[ˈmaɹʃuˑ]	'stone food-pounder'

Prosodic truncation of final *a* (see 2.3) affects several of these sequences, leaving diphthongs:

iy	[ɐĭ]	*yakuriy*	[ˈjakoˌɹɐĭ]	'fish-LOC'
iw	[ɷ]	*nguriw*	[ˈŋuɹɪɷ]	'girl'
ay	[aĭ]	*bardakay*	[ˈbɐˈɖɐˌkaĭ]	'stomach-LOC'
aw	[aŭ]	*walaw*	[ˈwalaŭ]	'rifle-fish'
uy	[uĭ]	*makuy*	[ˈmaˌkːuĭ]	'woman-LOC'
uw	[oŭ]	*ngukuw*	[ˈŋuˌkːoŭ]	'water'

Compared to similar vowel–glide–vowel sequences, vowel–glide sequences give greater length to the first vocalic segment. For example *ay* , phonetically [ɐĭ], is distinguished from *ayi* , phonetically [ɐɪˑ], by the relative length of the two components. In other words, the vowel–glide–vowel sequence gives a rising diphthong, with greater emphasis on the second element, while the vowel–glide sequence is a falling diphthong, with greater emphasis on the first element (cf. Catford 1977:216).