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BARRY BLAKE

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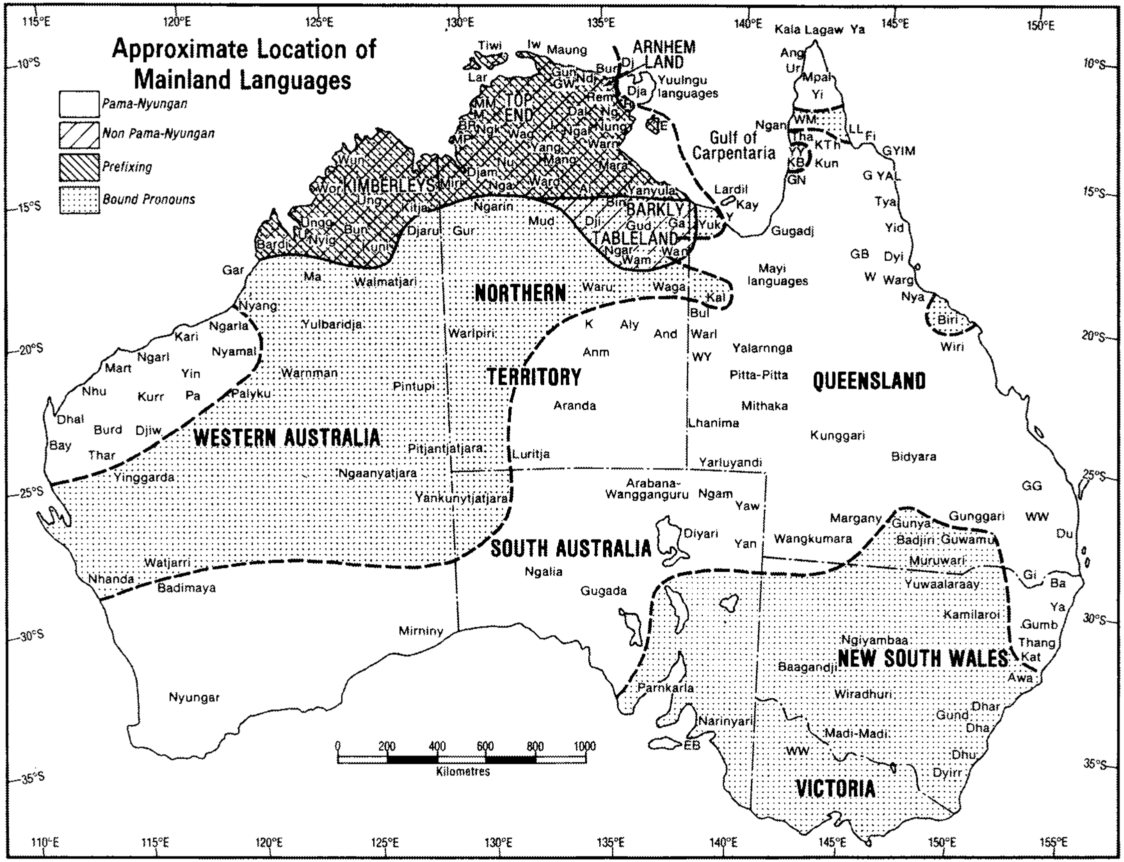
LIST OF ABBREVIATIONS AND SYMBOLS

A	transitive subject	
abl	ablative	
acc	accusative	
advan	advancement marker	
all	allative	
an	animate	
ap	antipassive	
aux	1. auxiliary verb	2. auxiliary particle
avers	aversive	
ben	benefactive	
caus	causal	
comp	1. complement	2. complementiser
cont(in)	continuous	
dat	dative	
emph	emphatic	
erg	ergative	
f	feminine	
foc	focus	
Fr	French	
fut	future	
gen	genitive	
GR	grammatical relation	
hum	human	
imp	imperative	
imperf	imperfect	
inan	inanimate	
inst	instrumental	
intr	intransitiviser	
IO	indirect object	
irr	irrealis	
It	Italian	
loc	locative	
m	masculine	
masc	masculine	
ne	neuter	
neg	negative	

LIST OF ABBEVIATIONS AND SYMBOLS

nom	nominative
NP	noun phrase
O	direct object
obj	direct object
obl	oblique
part	participle
pass	passive
per	perlative
perf	perfective
pers	1 person 2. personal name (e.g. Bill)
pl	plural
plur	plural
PM	phrase marking
pres	present tense
purp	purposive
re	reflexive or reciprocal
recip	1. recipient 2. reciprocal
refl	reflexive
rel	relative clause marker
s	singular
S	intransitive subject
sg	singular
sing	singular
Sp	Spanish
sub	subordinating
su(bj)	subject
tr	transitive, transitiviser
trans	transitive, transitiviser
unm	unmarked
V	verb
WM	word marking
:	used to join words glossing a single formative
=	marks boundary between a clitic and its host
>	1. takes precedence over 2. becomes
->	acts on
1	first person
12	first and second person
2	second person
3	third person

Bracketed numbers in the text, e.g. (2.2), refer to sentence examples. Where reference is made to a section, the word 'section' is specified, e.g. see section 6.3.


Approximate Location of Mainland Languages
Pama-Nyungan
Non Pama-Nyungan
Prefixing
Bound Pronouns
WESTERN AUSTRALIA
NORTHERN TERRITORY
SOUTH AUSTRALIA
QUEENSLAND
NEW SOUTH WALES
VICTORIA
ARNHEM LAND
TOP END
KIMBERLEYS
BARKLY TABLELAND
Gulf of Carpentaria
Kala Lagaw Ya
Tiwi
Maung
Yuulngu languages
Yanyula
Lardil
Kay
Gugadj
Mayi languages
Ngarin
Mud
Gur
Djaru
Kitja
Gar
Ma
Walmatjari
Waru
Waga
Kai
Nyang
Ngarla
Kari
Ngarl
Nyamal
Yulbaridja
Warlpiri
Yalarnnga
Pitta-Pitta
Mithaka
Lhanima
Yarluyandi
Mart
Nhu
Yin
Kurr
Pa
Palyku
Warnman
Pintupi
Aranda
Dhal
Burd
Djiw
Bay
Thar
Pitjantjatjara
Luritja
Yinggarda
Ngaanyatjara
Yankunytjatjara
Arabana-Wangganguru
Ngam
Yaw
Diyari
Yan
Watjarri
Nhanda
Badimaya
Ngalia
Gugada
Mirniny
Nyungar
Kunggari
Bidyara
GG
WW
Du
Margany
Gunya
Gunggari
Wangkumara
Badjiri
Guwamu
Muruwari
Yuwaalaraay
Kamilaroi
Gi
Ba
Ya
Gumb
Thang
Kat
Awa
Ngiyambaa
Baagandji
Wiradhuri
Parnkarla
Narinyari
EB
Madi-Madi
Gund
Dhar
Dha
Dhu
Dyirr
Biri
Wiri
Nya
Tya
Yid
GB
Dyi
W
Warg
GYIM
G YAL
Ang
Ur
Mpal
Yi
Ngan
WM
Tha
KTh
LL
Fi
YY
KB
Kun
GN
0
200
400
600
800
1000
Kilometres
10°S
15°S
20°S
25°S
30°S
35°S
110°E
115°E
120°E
125°E
130°E
135°E
140°E
145°E
150°E
155°E

NOTES TO MAP

The following is a list of the languages whose location is shown on the map together with the abbreviations used in the crowded areas. No account is taken of variant spellings except where there are two with different initials in which case a cross-reference to the map spelling is included.

Alawa (AL)
Alyawarra (ALY)
Andegerebinha (AND)
Anguthimri (ANG)
Anindilyagwa (Enindilyagwa)
Anmatjera (ANM)
Arabana-Wangganguru
Aranda
Atynyamathanha (A)
Awabakal (AWA)
Baagandji
Bandjalang (BA)
Bardi
Badimaya
Badjiri
Bayungu (BAY)
Bidyara
Binbinga (BIN)
Biri
Brinken (BR)
Bularnu (BUL)
Bunuba (BUN)
Burarra (BUR)
Burduna (BURD)
Dalabon (DAL)
Dhalandji (DHAL)
Dharawal (DHA)
Dharug (DHAR)
Dhurga (DHU)
Diyari
Djaabugay (*see* Tyaapukay)
Djambarrpuyngu (DJ)
Djamindjung (DJAM)
Djapu (DJA)
Djaru
Djingili (DJI)
Djiwarli (DJIW)
Duungidjawu (DU)
Dyirbal (DYI)
Dyirringany (DYIRR)
Encounter Bay language (EB)
Enindilyagwa (E)
Flinders Island (FI)
Garadjari (GAR)
Garawa (GA)
Gariera (*see* Kariyarra)
Gidabal (GI)
Gog-Nar, Gogo-Nhang (GN)
Gudandji (GUD)
Gugada
Gugadj
Gugu-Badhun (GB)
Gugu-Yalandji (G YAL)
Gumbainggir (GUMB)
Gunbalang (GUN)
Gundungurra (GUND)
Gungabula (*see* Bidyara)
Gunggari
Gunwinggu (GW)
Gunya

NOTES TO MAP

Gureng-Gureng (GG)
Gurnu (*see* Baagandji)
Guugu-Yimidhirr (G YIM)
Gurindji (GUR)
Guwamu
Inggarda (*see* Yinggarda)
Iwaidja (IW)
Jiwarli (*see* Djiwarli)
Jawon (J)
Kaititj (K)
Kala Lagau Langgus/
Kala Lagaw Ya
Kalkatungu (KAL)
Kamilaroi
Kariyarra (KARI)
Kattang (KAT)
Kayardild (KAY)
Kitja
Koko Bera (KB)
Kunggari
Kunibidji (*see* Ndjebbana)
Kuniyanti (KUNI)
Kunjen (KUN)
Kunwinjku (see Gunwinggu)
Kurrama (KURR)
Kuuku Thaypan (KTH)
Lama-Lama (LL)
Laragia (LAR)
Lardil
Lhanima
Madi-Madi
Malak-Malak (MM)
Mangarayi (MANG)
Mangarla (MA)
Mara
Maranungku (M)
Margan^{y}
Marithiel (*see* Brinken)
Martuthunira (MART)
Maung
Mayi languages
Miriwung (MIRI)
Mirniny
Mithaka
Mpalityanh (MPAL)
Mudbura (MUD)
Murin^{y} Pata (MP)
Muruwari
Narinyari
Ndjebbana (NDJ)
Ngaanyatjarra
Ngalia
Ngaliwuru (NGA)
Ngamini (NGAM)
Ngancara (NGAN)
Ngandi (NG)
Ngangikurungur (NGK)
Ngarinjin (*see* Ungarinyin)
Ngarinman (NGARIN)
Ngarla
Ngarluma (NGARL)
Ngarndji (NGAR)
Ngawun (*see* Mayi)
Ngayimil (*see* Yuulngu)
Ngiyamba (Wangaybuwan)
Nhanda
Nhuwala (NHU)
Nungali (NU)
Nunggubuyu (NUNG)
Nyamal
Nyangumarda (NYANG)
Nyawaygi (NYA)
Nyigina (NYIG)
Nyungar
Oykangand (*see* Kunjen)
Palyku
Panyjima (PA)
Parimankutinma (Lama-Lama)
Parnkarla
Pintupi
Pitjantjatjara
Pitta-Pitta
Rembarnga (REM)
Ritharngu (R)
Thalandji (*see* Dhalandji)
Thangatti (THANG)
Thargari (THAR)
Thayorr (THA)
Tiwi
Tyaapukay (TYA)
Umbuykamu (*see* Lama-Lama)
Ungarinyin (UNG)
Unggarangi (UNGG)
Unggumi (U)
Uradhi (UR)
Wadjuk (*see* Nyungar)
Wagaya (WAGA)
Wageman (WAG)
Waka-Waka (WW)
Wambaya (WAM)
Walmatjari
Wangka-Yutjuru (WY)

NOTES TO MAP

Ngalakan (NGAL)
Wangganguru (Arabana-Wangganguru)
Wangkumara
Wanyi (WAN)
Wardaman (WARD)
Wargamay (WARG)
Warlpiri
Warluwara (WARL)
Warndarang (WARN)
Warnman
Warumungu (WARU)
Warungu (W)
Watjarri
Wemba-Wemba (WW)
Western Desert language
(*see* Ngaanyatjara,
Pitjantjatjara,
Yankunytjatjara,
Ngalia,
Gugada,
Luritja,
Pintupi,
Yulbaridja)
Wik-Munkan (WM)
Wiradhuri
Wiri
Worora (WOR)
Wunambal (WUN)
Yalarnnga
Yandruwandha(YAN)
Yanggaal (Y)
Yangman (YANG)
Yankunytjatjara
Yanyula
Yarluyandi
Yawarawarga (YAW)
Yaygir (YA)
Yidin^{y} (YID)
Yindjibarndi (YIN)
Yinggarda
Yinwum (YI)
Yir-Yoront (YY)
Yiwaidja (*see* Iwaidja)
Yukulta (YUK)
Yulbaridja
Yuulngu languages
Yuwaalaraay

Chapter One

ORIENTATION

1.1 Classification

Before the nineteenth century over 200 Aboriginal languages were spoken in Australia. Today half of these are extinct and only a few score of the remainder have enough speakers to survive for more than another generation. Grammatical information is available for about 150 languages, mostly in the form of brief grammars. However,in some instances there are papers discussing particular points of morphology or syntax. Some of this material is from the nineteenth century, but the bulk of it is from the last twenty years.

In generalising about Australian languages it is useful to distinguish those of the Kimberleys and the Top End from those in the rest of the Australian mainland. Tasmania is excluded from consideration because there is no grammatical information available on any of the languages once spoken on the island. Capell 1956 made a typological distinction between ***suffixing*** languages and ***prefixing*** languages. A suffixing language is one in which all affixes are suffixes, while a prefixing language is one in which ***some*** affixes are prefixes, notably bound pronouns on the verb. The prefixing languages are found north of a line running from Dampier Land to the Gulf of Carpentaria (see map), i.e. in the Kimberleys and the Top End. The suffixing languages are found in the rest of the mainland and also in an enclave in the north-east corner of Arnhem Land.

O'Grady, Wurm and Hale 1966 (see also O'Grady, Voegelin and Voegelin 1966:21ff) produced another classification of Australian languages by comparing lexical similarities in short words lists. They classified a total of about 230 languages into 26 'families'(as revised in Wurm 1972). Since the classification does not always distinguish cognates from borrowings and since some of the sources are meagre amateur compilations, the results do not provide a good basis for genetic classification, at least in theory. In practice the classification seems to reflect the pattern of relative

similarity and difference we obtain when we compare grammatical forms, and although little systematic reconstruction has been undertaken in Australia, it looks as if this classification in general reflects genetic relationship.

In the O'Grady et alii system one family, the Pama-Nyungan, covers four fifths of the continent including the suffixing bloc in north-east Arnhem Land, while the other twenty five families are concentrated in the prefixing area, i.e. the tentatively genetic classification corresponds closely to Capell's typological one. The major discrepancy occurs in an area extending from the Barkly Tableland into Queensland where half a dozen languages are non-Pama-Nyungan but suffixing. These include Djingili and the other Tableland languages plus Wanyi and Garawa.

In this work I shall use both the typological labels, ***suffixing*** and ***prefixing***, and the genetic labels, ***Pama-Nyungan*** and ***non-Pama-Nyungan***.[1]

1.2 Parts of Speech

Australian languages are for the most part agglutinative, i.e. the words are made up of meaningful parts that are easily separable. The common pattern is for a stem to bear an inflectional suffix. The stem itself may be a simple, unanalysable root or, on the other hand, it may be a compound or reduplicated form and may bear one or more derivational (word-building) suffixes. The following Pitta-Pitta sentence illustrates both derivation and inflection.

(1.1) ***karna-lu*** ***kanga-marru-lu*** ***yunga-nha***
man-erg intoxicant-having-erg blanket-acc
ngapu-ngapu-nha ***kuku-thuka-ma-ya***
water-water-acc back-take-around-pres
'A drunken man is carrying a wet blanket around on his back.'

-marru is a derivational suffix forming adjectives from nouns and ***ngapungapu*** illustrates the use of a reduplicated stem, the reduplication here serving to derive an adjective from a noun. ***kuku-thuka*** is a compound suffixed by ***-ma*** (which indicates 'around' as in 'look around', 'run around', etc.) plus tense inflection. The suffix ***-lu*** is the ergative case suffix marking the subject of the transitive verb and ***-nha*** is the accusative suffix marking the direct object.

Words may be classified into three major classes on the basis of their potential for inflection. Verbs take suffixes to mark distinctions of tense, aspect, mood and sometimes voice; nominals in most Australian languages inflect for case, and some words take no inflection. These are usually called particles.

The major word classes are syntactically distinguishable in that a sentence can consist of a verb on its own or of just two nominals, but never of a particle on its own. This claim rests on the assumption that one-word utterances consisting of a particle or a single nominal are elliptical, whereas a verb on its own is a complete sentence since zero is the normal way of representing third person singular actants. This is true not only of languages that incorporate pronominal markers for subject and object in the verb, but also of languages like Pitta-Pitta that do not. Thus *kuku-thuka-ma-ya* (see (1.1) above) on its own means 'He/she/it is carrying him/her/it/ around'.

Nominals in Australian languages cover much the same semantic range as their counterparts in English and so do verbs. Adjectives represent a sub-class of nominals, but they are not normally distinct from common nouns in terms of inflection, only in terms of syntactic distribution. Usually they follow the nouns they qualify, as in (1.1), often, however, separated from their head noun (see (1.15), (5.1) and (5.13). These adjectives cover much the same content as English adjectives, but English adjectives denoting temporary states (*ill*, *hungry*, etc.) sometimes have intransitive verb equivalents. In some Australian languages English adverbs of manner are matched by a class of words that are morphologically like adjectives but syntactically distinct in that they do not normally occur in noun phrases or as the predicate of a verbless sentence. The following example is typical of the Western Desert language,

(1.2) *watí-lu* *pu-ngu* *wala-lu*
man-erg hit-past quick-erg
'The man hit it quickly.'

The uninflected words, the particles, carry meanings such as 'not', 'don't', 'maybe', 'if', 'indeed' and 'also'. A finer classification would recognize conjunctive particles (conjunctions), linking particles, (say translating *however* or *now then*), modal particles, interjections and the like. The translational equivalents of English adverbs of time and place may bear local case inflection or be uninflected and thus pose a problem for classification. They differ from particles in that they carry some of the grammatical relations also borne by nominals, e.g. locative. They are best considered sub-classes of nominals (see section 3.6).

English prepositions usually correspond to case inflections or adverbs, but a handful of Australian languages, mostly within a 500 km radius of Darwin, have prepositions and a few, also concentrated in the north of the continent, have postpositions.

1.3 **Nominals**

In the vast majority of Australian languages nominals inflect for case. A typical Australian case system is made up of about half a dozen cases. The following noun paradigm from Margan[y] (Breen 1981a:302ff) is representative,

(1.3)			
	nominative	***barri***	stone
	ergative	***barringgu***	with a stone
	locative	***barringga***	on a stone
	dative	***barrigu***	for a stone
	allative	***barridhadi***	to a stone
	ablative	***barrimundu***	from a stone

The ergative suffix marks the subject of a transitive verb as well as marking instrument.

(1.4)	***nguda-nggu***	***yurdi***	***gambaanhi***
	dog-erg	meat	buried
	'The dog buried the meat.'		

Normally with pronouns, there is no ergative marking but on the other hand there is accusative marking for the object. This too can be illustrated from Margan[y],

(1.5)	***nga-ya***	***yurdi***	***gambaanhi***
	I-nom	meat	buried
	'I buried the meat.'		

(1.6)	***yamba-dhadi***	***nga-ya***	***gambirngu***
	camp-all	I-nom	go:back:purp
	'I'm going home.'		

(1.7)	***nguda-nggu***	***badhaala***	***nga-nha***
	dog-erg	bit	me-acc
	'The dog bit me.'		

As can be seen the same form of the pronoun is used for the transitive subject and intransitive subject but a different (accusative) form for the object.

In some languages case marking occurs on all nominals in a phrase whereas in others it appears only on the final word in a phrase.

Pronouns distinguish three persons (first, second and third) and usually three numbers (singular, dual and plural) with some languages making an inclusive/exclusive distinction in the first person non-singular (***inclusive*** means 'including the addressee' and ***exclusive*** means 'excluding the addressee'). The following paradigm from Watjarri (Douglas 1981:223) is typical not only in terms of distinctions but also in the actual forms. Australian languages look as if

they may be genetically related, certainly they all contain some forms from a common source. The first person pronoun root *nga-* is found in practically every Australian language and the second person forms and third person non-singular forms shown in this paradigm are very widespread among the suffixing languages, albeit often in transparent disguise. Here and elsewhere in the text 1 = first person, 2 = second person and 3 = third. 12 = speaker plus hearer.

(1.8)

	SINGULAR	*DUAL*	*PLURAL*
1	*ngatha*	*ngalitya*	*nganthu*
12		*ngali*	*nganhu*
2	*nyinta*	*nyupali*	*nhurra*
3	*palu*	*pula*	*thana*

Among some of the prefixing languages pronouns for 'thou and I' count as singular. This becomes obvious when we examine the distribution of dual and plural marking.[2] The following are the pronouns in the prefixing language, Kunwinjku (Gunwinggu) where *ngarr* is the form for 'thou and I' and *kane* the form for 'I plus two addressees' (Carroll 1976:63-4). The bound pronouns for intransitive subject have been presented in lieu of the free forms since the latter paradigm contains some extra irrelevant formatives.

(1.9)

	SINGULAR	*DUAL*	*PLURAL*
1	*nga-*	*ngane-*	*ngarri-*
12	*ngarr-*	*kane-*	*karri-*
2	*yi-*	*ngune-*	*ngurri-*
3	*0*	*bene-*	*birri-*

Although number is regularly marked in pronouns, either suppletively as in Watjarri or by regular affixation and suppletion as in Kunwinjku, it is not often marked on other nominals. Where the context is clear, number can be left unspecified, but there are free forms for expressing number (words for *one, two, three, four* and *group*, colloquially *'mob'*), and many languages do have marking for plural and sometimes dual. This marking comes between the stem and the case marking. In Yalarnnga, for instance, 'on its two eyes' is *mili-wulampa-ya* (eye-two-locative).

A majority of Australian languages have an agreement system of cross-referencing bound pronouns. Normally there is a subject series of forms and an object series. A few languages have additional sets of forms cross-referencing, for instance, dative nominals. The term 'bound pronouns' is a loose pre-theoretical cover term for what must ultimately be analysed as clitics or inflection. In a minority of languages the cross-referencing elements are appended to the first

constituent of the clause so a clitic analysis is the only one possible (see section 6.4). In most languages, however, the forms are prefixed or suffixed to the verb and an inflectional analysis is possible. The following example is from Biri (based on Beale 1974).

(1.10) *gayurba* *yani-nga-la* *yinhagu*
woman go-pres-3s(subject) here
'The woman is coming here.'

(1.11) *bama-nggu* *bandhu-li-la-nga* *gayurba*
man-erg hit-past-3s:subj-3s:obj woman
'The man hit the woman.'

The bound pronouns are said to cross-reference nominals since they occur *as well as* the nominals to which they correspond. However, in most languages the bound pronouns are obligatory and the free nominals optional, with the bound pronouns usually occurring *in place of* nominals.

Some languages have systems of noun classification. These manifest themselves in affixes on nouns, usually with concord extending to the dependents of the noun, and agreement in the cross-referencing pronominal forms on the verb. Among the Pama-Nyungan languages noun classification is uncommon, but it does occur in Dyirbal (four classes), Bandjalang (four classes), Wangkumara (two classes) and Wagaya (two classes). Among the non-Pama-Nyungan languages noun classification is quite common and the number of classes runs to as many as nine in Ngandi and Nunggubuyu. Where there are two classes the distinction is usually masculine versus feminine (strictly non-feminine versus feminine). Four-class systems usually contain a vegetable food class and the prefixing languages sometimes have dual and plural classes. In the systems with more than two classes assignment of referents to classes can seem fairly arbitrary. In Nunggubuyu there are masculine singular, feminine singular and plural classes for humans and six quite arbitrary classes for the remainder of the universe.

The following example from Ngandi illustrates noun classification in a prefixing language. There are four classes for humans in this language (masculine, feminine, masculine dual and plural (including feminine dual) and five for non-human. The class marking appears on nouns (and their dependents) and on the verb. Class markers are glossed here and elsewhere in the text in untranslated capitalised form (Heath 1978a:42).

(1.12) *ṇi-gu-may* *ṇi-yul-thu* *gu-dyundu*
ṆI-GU-got ṆI-man-erg GU-stone
'The man got the stone.'

Note that since this system is cross-referencing the word *nigumay* can stand as a complete sentence meaning 'A member of the *NI* class got a member of the *GU* class'. Note too that in this instance the cross-referencing forms match the prefixes on the nouns. This is not always the case, but is entirely to be expected since the system clearly derives from the use of generics in place of more specific nouns and as accompaniments to more specific nouns. In many Australian languages it is normal to say *meat kangaroo* or *vegetable-food yam* and it is not hard to see how the phonological reduction of the generic would yield a class marker. In fact the vegetable class marker in a number of languages is *m-* or *ma-* and the noun for vegetable food is frequently *mayi* or something similar.

In some languages the prefixed noun class markers show case distinctions in addition to those on the noun itself. In Nungali, for instance, the class markers show suppletive alternation for case, e.g. the Nungali vegetable class marker *ma-* or *mi* appears as *nyi* with nouns in the ergative and locative (Hodinott and Kofod 1976a). See section 2.2.3 for further examples. The Nungali system is shown in Table 19 in section 10.4.2.

1.4 Verbs

Verbs in Australian languages inflect for tense, aspect, mood and voice. The tense system may distinguish past-present-future, past-nonpast or future-nonfuture. Sometimes there is a distinction between recent and remote past. Perfective and imperfective aspects are frequently marked, as is purposive (expressing intention and sometimes obligation) and irrealis. The label *irrealis* is common in Australian grammars, but it seems to be used for a number of somewhat different aspects, for instance for events that may happen, that might have happened, that are to be avoided and so on. All languages distinguish the imperative mood from the indicative and a few mark voice distinctions such as active-passive.

Most of the non-Pama-Nyungan languages have a closed set of auxiliary verbs inflecting for tense, etc. and for the person and number of the subject and object which are used in conjunction with an open class of uninflected lexical verbs. The following example is from Ungarinjin (Rumsey 1982:88) where *li* is the lexical verb and *yila* the inflected auxiliary.

(1.13) *li* *ngandiyela*
li *nga-n-da-iya-yila*
watch me-acc-they-fut-hold
'They will see me.'

A majority of Australian languages exhibit conjugational

differences. There may be between two and seven different conjugations, each characterised by a particular conjugation marker (Dixon 1980:382ff). The following example is from the Ngaanyatjara dialect of the Western Desert language where there are four conjugations (Glass and Hackett 1970:12)

(1.14)	*l*	*0*	*n*	*ng*
imperative	*-la*	*-0*	*-rra*	*-wa*
future	*-lku*	*-ku*	*-nku*	*-ngku*
potential	*-nma*	*-ma*	*-nama*	*-ngama*
past	*-(r)nu*	*-ngu*	*-nu*	*-ngu*
present	*-ra*	*-rra*	*-ra* *-nkula*	*-ngkula*

1.5 Word Derivation

All Australian languages employ suffixes to derive words of one part of speech from another. The following derivational processes are widely distributed:

(a) noun to adjective
(b) nominal to intransitive verb
(c) nominal to transitive verb
(d) verb to agent noun
(e) intransitive verb to transitive verb
(f) transitive verb to intransitive verb

It should be noted, however, that (a), (e) and (f) do not normally involve any change in morphological class. All of these can be illustrated from Kalkatungu:

(a) noun to adjective

ngunkurr	a cold	*ngunkurr-aan*	having a cold
arrkun	a fight	*arrkun-aan*	belligerent
kaki	a wound	*kaki-yan*	wounded

(b) nominal to intransitive verb

This usually has an inchoative sense.

puyurr	hot	*puyurr-ati*	become hot
yaun	big	*yaun-ati*	become big
kupangurru	old man	*kupangurru-thati*	be(come) old

(c) nominal to transitive verb

pilhthi	soft	*pilhthi-puni*	to mash,squash
yurru	man	*yurru-puni*	to make a man
kaki-yan	wounded	*kaki-yan-puni*	to wound

(d) verb to agent noun

kanima-yi	to tie up	*kanima-yi-nytyirr*	policeman
lha-yi	to kill	*lha-yi-nytyirr*	killer

The suffix *-yi* is the anti-passive. Its function here is explained at the end of section 8.3.2.

(e) intransitive verb to transitive verb.

These derivations in Kalkatungu and elsewhere are typically causative, but see the discussion in section 4.4.1

nguyi	to fall	*nguyi-nti*	to drop
watharra	to emerge	*watharra-nti*	to rouse,flush

(f) transitive verb to intransitive verb.

Reflexive-reciprocals are intransitivised verbs in many Australian languages and this is the case in Kalkatungu. This language also has another class of derived intransitives, namely anti-passives (see section 4.3.2).

pinytyi	to scratch	*pinytyi-ti*	to scratch one another
lha	to hit	*lha-ti*	to fight

These derivational processes are found in most languages. The principal class of exceptions is to be found in languages (mostly prefixing ones) that use auxiliary verbs. They tend to make transitive-intransitive distinctions by using different auxiliaries. This is not surprising. The derivational affixes used to derive one class of verb from another are often of transparently verbal origin and are cognate with some of the auxiliaries that make the analogous distinctions.

Words normally cannot move from one part of speech to another without overt derivation. English verbs borrowed into Australian vernaculars are regularly marked by verb-forming derivational suffixes so *to work*, for instance, when used in Kalkatungu is *waka-thati* (see (b) above).

1.6 Syntax

Perhaps the most striking feature of Australian Aboriginal languages is the widespread use of ergative case marking for the subject of a transitive verb. Among the world's languages ergative marking is found in fifteen per cent at the most, yet in Australia there are, or were, nearly 200 languages with this feature, including practically all the Pama-Nyungan ones.

Another notable feature of many Aboriginal languages is

freedom of word order. Australian languages tend to have fairly free word order both as regards the constituents of the clause and sometimes even the constituents of noun phrases. In some languages it is doubtful if there are any rigid grammatical rules of word order though naturally there are discourse rules determining the expression of focus (or emphasis), etc. In a majority of languages the notional noun phrase may be expressed discontinuously, as in the following example from Djaru where the transitive subject is represented by three discontinuous segments (Tsunoda 1981:94).

(1.15) *yalu-nggu lan-i mawun-du dyadyi yambi-gu*
that-erg spear-past man-erg roo big-erg
'That big man speared a kangaroo.'

Complex sentences may be formed by the addition to a clause of one or more clauses marked as subordinate. The verb of the subordinate clause may be nominalised and may bear a case suffix marking it as purposive, etc. or it may be tensed with a particle (or complementiser) signalling its subordinate status. It is very common for a single type of subordinate clause to have adnominal and adverbal functions, i.e. to correspond to English relative clauses and to adverbial clauses.

1.7 Phonology

Phonology will not be dealt with in this work and the following notes are concerned only with the transcription used in the examples.

The majority of Australian languages have three vowels *i*, *a* and *u*. Where long vowels occur, I shall write them *ii*, *aa* and *uu*. Many Australian languages have a set of consonants the same as or similar to the set displayed in Table 1. These will be represented in the text by the letter or letters shown in brackets or where there is no bracket by the letter used in the phonemic notation. A large number of Australian languages have only one laminal series of consonants. This laminal series will be represented by *ty*, *ny* and *ly*.

Usually there is no phonemic (meaningful) distinction between voiced and voiceless consonants and some sources employ voiced consonants *b*, *d*, etc. to represent stops while others employ voiceless ones, *p*, *t*, etc. I have retained the 'voicing' of my sources; thus in examples from some languages *p*, *th*, *t*, *rt*, *ty* and *k* are used while in examples from others *b*, *dh*, *d*, *rd*, *dy* and *g* are used. A glottal stop has been represented by a question mark.

Table 1. Consonant Phonemes

	bilabial	lamino-dental	apico-alveolar	apico-domal retroflex	lamino-palatal	dorso-velar
Stops	*p*	*t̪ (th)*	*t*	*ṭ (rt)*	*c (ty)*	*k*
Nasals	*m*	*n̪ (nh)*	*n*	*ṇ (rn)*	*ɲ (ny)*	*ŋ (ng)*
Laterals		*l̪ (lh)*	*l*	*ḷ (rl)*	*ʎ (ly)*	
Flap			*r (rr)*			
Semi-vowels				*ṛ (r)*	*y*	*w*

In initial position the digraphs *rt*, *rd*, *rn* and *rl* for retroflexes look odd, so I have used the subscript dot or simply represented the sounds as alveolar (usually there is no alveolar/retroflex opposition in initial position).

Language names are normally spelt as in my source. This sometimes involves some divergence from the transcription outlined above, e.g. *Djaru* where the digraph *dj* corresponds to my *dy*.

NOTES

1. The Tangkic languages of the Gulf (Lardil, Kayardild, Yangaal and Yugulta) are classified as Pama-Nyungan, but in fact they lack the characteristic roots of this family (e.g. *ngali* for 'we two') and have certain non-Pama-Nyungan roots (e.g. *gu-* 'you'(nonsingular)).

2. In some forms of creole this holds good with *yunmi* 'thou and I' not bearing dual marking while other forms referring to two people are marked by a dual marker *-dubala*.

Chapter Two

CORE GRAMMATICAL RELATIONS

2.1 Introduction

The structure of a sentence can be considered in terms of a head which may have one or more dependents. Each dependent can serve as the head for other second level dependents which can serve as heads for third level dependents and so on. Dependents can bear different kinds of relation to their head. In the sentence *John's father drinks beer*, *drinks* is the head and *father* and *beer* dependents, but while *father* bears the subject relation, *beer* bears the object relation. The second order dependent *John* bears the possessor relation to the head *father*. It is generally accepted that a possessive like *John's* is a dependent since its presence is optional, but the claim that the verb is the head of the sentence may seem controversial in light of the fact that the subject in a language like English is usually obligatory, and with transitive verbs, the object is too. However, I think the claim can be defended on the grounds that it is the verb that determines the range of possible complements (I use *complement* to cover all the arguments required to *complete* the sense of the verb). In Australian languages it is usually clear that the verb is head of the clause since in most languages it is the only obligatory element in the clause. A verb on its own can stand as a non-elliptical sentence even in languages that lack cross-referencing pronouns.

I will describe the different kinds of relation borne by dependents to their heads as *grammatical relations*. This chapter will deal with the relations held by the complements of one-place intransitive verbs and two-place transitive verbs in unmarked or basic constructions. Other relations and constructions are dealt with in chapters three, four and five.

2.2 Core Grammatical Relations

The relations held by the complements of one-place intransitive verbs and two-place transitives, which I will refer to as the ***core grammatical relations***, are normally expressed via case marking and/or cross-referencing bound pronouns. In a few languages noun class markers play a part.

2.2.1 *Case Marking*

As noted in section 1.3, in most Australian case systems there are two different patterns of case marking for the core relations. With nouns the same form (almost always the bare stem)[1] marks the subject of intransitive verbs and often the direct object of transitive verbs (though some languages have a suffix for direct object on some or all nouns), while a distinct form marks the subject of transitive verbs. With pronouns the same form (almost always the bare stem, at least with non-singular pronouns)[2] marks the subject of both intransitive and transitive verbs while a distinct form marks direct objects. The typical pattern of marking is illustrated from Gunya (Breen 1981a:301-6) in Table 2. *T* in *-Tu* stands for a number of stop consonants each having the same point of articulation as the final consonant of the stem.

Table 2: Cases and Case Marking

	noun		pronoun
Nominative	-		-
Ergative	*-ngku*	*-Tu*	-
Accusative	-		*-nha*

The juxtaposition of the two patterns of marking makes a three-way distinction as can be seen in Table 2, a distinction between three cases: nominative, ergative and accusative. In Australian linguistics a practice has emerged of describing languages like Gunya as having ergative case only with nouns and accusative case only with pronouns. However, this is not in accordance with traditional usage where a case is a set of suffixed forms substitutable in one or more syntactic environments and distinguishable from other cases for at least one form. We need to distinguish ***case markers*** (the actual suffixes) and ***cases***, the sets of mutually substitutable forms. To make the distinction clear Table 3 has been included showing some Latin case paradigms (tables). Note that there are six entries for each noun even though no noun makes six distinctions. The number of entries for each

Table 3: Latin Case System

	1(fem.)	2(masc.)	2(neuter)	3	4
	mēnsa	*annus*	*bellum*	*cōnsul*	*gradus*
	'table'	'year'	'war'	'consul'	'step'
			singular		
Nominative	*mēnsa*	*annus*	*bellum*	*cōnsul*	*gradus*
Vocative	*mēnsa*	*anne*	*bellum*	*cōnsul*	*gradus*
Accusative	*mēnsam*	*annum*	*bellum*	*cōnsulem*	*gradum*
Genitive	*mēnsae*	*annī*	*bellī*	*cōnsulis*	*gradūs*
Dative	*mēnsae*	*annō*	*bellō*	*cōnsulī*	*graduī*
Ablative	*mēnsā*	*annō*	*bellō*	***cōnsule***	*gradū*
			plural		
Nominative	*mēnsae*	*annī*	*bella*	*cōnsulēs*	*gradūs*
Vocative	*mēnsae*	*annī*	*bella*	*cōnsulēs*	*gradūs*
Accusative	*mēnsās*	*annōs*	*bella*	*cōnsulēs*	*gradūs*
Genitive	*mēnsārum*	*annōrum*	*bellōrum*	*cōnsulum*	*graduum*
Dative	*mēnsīs*	*annīs*	*bellīs*	*cōnsulibus*	*gradibus*
Ablative	*mēnsīs*	*annīs*	*bellīs*	*cōnsulibus*	*gradibus*

noun, in other words the number of rows in the table, is arrived at by considering a range of syntactic environments (subject, direct object, object of the preposition *ex*, etc.) and the forms that can be used in each function. All the forms that can be used in a particular function can be placed in the same row irrespective of whether a particular form is the same as or different from the form required for another function. However, to justify two separate rows there must be at least one nominal that makes a distinction. In Table 3 it can be seen that the vocative is distinguished only in the second declension.[3]

The rows in the paradigms are the *cases* and the traditional labels are shown at the left. The suffixes *-um*, *-i*, etc. are the *case markers*. The establishing of case facilitates the description of the syntax and enables us to make statements such as 'the direct object is in the accusative' and 'the accusative without a preposition signals motion towards with the following nouns'. Without the notion of an accusative case we would have to specify a long list of suffixes and repeat the same list several times in the grammar. (See Goddard 1982, Blake 1982a, 1985.)

However, case markers cannot be dismissed. They show regular patterns of syncretism (neutralisation) and opposition (distinction) with respect to sub-classes of nominal. Case markers, like cases, have meanings and pragmatic significance.

The divergent Australianist usage has managed to survive because of the general adoption of Dixon's 1972 syntactic entities, S (intransitive subject), A (transitive subject) and O (direct object). Using these three syntactic relations allows some of the generalisations that would otherwise have been made on the basis of cases. However, it must be noted that S, A and O are not notational variants of nominative, ergative and accusative as determined in Table 2 above. For a start S, A and O are potentially applicable to any language whereas cases are a feature of the morpho-syntax of particular languages. More importantly, S, A and O are particular grammatical relations, whereas cases can encode more then one relation. The nominative, for instance, will normally encode not only S, but also the intensive complement of sentences translating *John is a white man*, *He is John*, etc. (irrespective of whether there is a verb in the Aboriginal sentence or not).[4] It will also encode the body part in translations of sentences like *My head aches* where Australian languages tend to have expressions that are literally *I ache head* where *I* is S but not *head*. Similarly the accusative will encode not simply O, but the intensive complement of sentences translating *They call me 'uncle'*, *They made him a fully initiated man*, etc., both objects in 'giving' sentences analogous to *They gave me a drink*, and the body part as well as the 'owner' of the body part in sentences

translating *They hit my arm*, literally *They hit me arm*. The ergative often marks the instrumental relation as well as A, though the two relations are almost always readily distinguishable on syntactic grounds (see (3.3)).

In the remainder of this work I shall employ S, A and O, which I take to be morpho-syntactically distinguished, *simple* grammatical relations. I shall also refer to *subject* and *absolutive*, which I take to be *compound* grammatical relations. Subject is a compound of S+A and absolutive a compound of S+O. This is the set of relations from which a particular language may choose. Obviously *subject* is a wide-spread relation in the languages of the world and in Australian languages it shows up in the cross-referencing system. Also, as we shall see in chapter eight, it plays a part in some languages in rules of inter-clause coreferencing. *Absolutive* has not been mentioned up to this point. However, it plays a part in the syntax of some Australian languages. For instance, in Dyirbal, the head of a relative clause must be absolutive (see chapter eight). Note that I am using *absolutive* in the way it is used in Relational Grammar, i.e. as the name of a relation not as the name for a case or a case marker. Some linguists have adopted the label *absolutive* for a case embracing S and O, eschewing *nominative* since nominative traditionally covered S and A. However, it should be noted that the citation form of a noun can be opposed to ergative, or to ergative and accusative or to neither. If we adopt a label other than nominative, when the case concerned is opposed to ergative rather than accusative, to be consistent we would have to think up new labels for the case opposed to ergative and accusative, and for a case opposed to neither. I prefer to base the label *nominative* on the citation form, but I have found *absolutive* a useful label for a case or case marker covering S and O in certain contexts, for instance in section 2.2.3 below where an opposition between absolutive and oblique is described.

Traditional descriptions of languages recognize O (direct object) but not S and A. However, it is clear in Australian languages that reference needs to be made to S and A at least in describing the functions of the cases where there is a nominative/ergative/accusative contrast. Moreover, S and A are needed for the description of languages generally more than has been recognized in the past. Often grammars contain generalisations about subject which upon inspection turn out to be exclusive to S or to A. For instance, in some modern grammars reference is made to subject-to-subject raising in sentences like *John seems to understand Rhyming Slang* where *John* is said to have been raised from the lower clause in a deep structure of the form *X seems [John to understand Rhyming Slang]*. But the putative raising is to S not to *any* subject, and the appropriate generalisation about

raising is that the host is always absolutive (S or O) (J. Anderson 1977). The raising of subject-to-O is evidenced in ***Everyone expects the Aussies to beat the Windies***, which in Transformational Grammar, is derived from ***Everyone expects [the Aussies to beat the Windies]***.

2.2.2 *Cross-referencing Bound Pronouns*

About two-thirds of Australian languages have bound pronouns for the core grammatical relations (a few have bound pronouns for certain other relations too - see chapter six). Typically there are two sets, a subject set and an object set, which are obligatory and are affixed to the verb. If a free nominal is used for subject or object, then there is cross-referencing between the two representations of the particular relation (see (1.10), (1.11) and (1.12).

The term ***bound pronoun*** is a convenient cover term for what must ultimately be analysed as a system of inflection or as a system of clitic pronouns. In the 'older' Indo-European languages the subject is represented in the verb. In Latin, for instance, 'Caesar hears a shout' would be ***Caesar audit clamorem*** where the ***-t*** on the verb marks a third person singular subject. ***Caesar*** can be omitted leaving ***Audit clamorem*** as a complete sentence meaning 'He/she/it hears a shout'. Note that this is not possible in English: ***hears a shout*** is not a complete sentence, since although the sibilant ending on the verb agrees with the subject, it does not represent it. The agreement system is not cross-referencing. The subject marking in Latin is traditionally analysed as inflectional subject agreement. There is no reason to suggest that there are enclitic pronouns since the forms occupy a fixed position within a word (at the end of the verb) and since there is not always an identifiable segment representing the subject.

These subject markers contrast with forms like the conjunctive pronouns of French (as in ***Je le vois*** 'I see it'). These pronouns are unlike normal nominals in that they cannot be stressed (except for those postposed to imperatives, e.g., ***Voyez-le*** 'See it'), cannot be conjoined (****Pierre et je*** 'Peter and I'), relativised upon (****Il qui va*** 'He who goes'), modified (****Vous tous êtes des idiots*** 'You all are idiots') or followed by appositional elements (****Il, mon meilleur ami, est parti*** 'He, my best friend, has left') (Lambrecht 1981). This suggests that the conjunctive pronouns be analysed as affixes, but against this there is the fact that the subject set participates in inversion (***Aimez-vous Paris?*** 'Do you like Paris?'). It is appropriate therefore to analyse them, or at least the subject ones, as proclitic pronouns, forms that are syntactically separate but phonologically dependent.

Most of the bound pronouns in Australian languages occupy

a fixed position with respect to the verb (or auxiliary verb), preceding the verb in prefixing languages (see (1.12)) or following the verb in suffixing languages (see (1.10) and (1.11)). These forms can be interpreted as inflection, an analysis that is compelling in those languages (mostly prefixing) where there are not always identifiable segments for A and for O in transitive clauses (see section 6.6).

In a handful of languages the bound pronouns are suffixed to the first constituent in the clause. In these languages the clitic analysis is the only one possible. The following example is from Yulbaridja (O'Grady et al.:1966a:152).

(2.1) *ngurra-ngka=rna nyina-nya*
camp-loc-I stay-fut
'I'll stay in the camp.'

(2.2) *waka-npa=rna=nta*
spear-fut-I-you
'I'll spear you.'

In (2.2) the bound pronouns are suffixed to the verb simply because it is the only word in the clause.

Table 4 illustrates the system of cross-referencing enclitics in another dialect of the Western Desert language alongside the cases used to encode the core relations. Note that the pattern of marking within the enclitic system mirrors the pattern of marking with free pronouns.

Table 4: Marking Core Relations in Western Desert.

	Noun	Pronoun	Enclitic Pronoun
	watl (man)	*ngali* (we two)	*-li-* (we two)
Ergative	*watl-lu*	*ngali*	*-lityu*
Nominative	*watl*	*ngali*	*-lityu*
Accusative	*watl*	*ngalinya*	*-linya*

Although most Australian case systems distinguish nominative-ergative-accusative, a few make only a nominative-ergative distinction. Where this is so and an enclitic system of the subject-versus-object type co-occurs it might be thought that the enclitics would constitute a nominal paradigm and that the inclusion of this among the nominals would yield a three-way case contrast. Such a situation occurs in Djaru and a partial illustration is provided in Table 5. However, nothing would be gained by considering the enclitic system as a nominal paradigm. The enclitics mark

particular relations, subject and object, whereas the cases mark these relations and other complements. If one is describing agreement within noun phrases, the existence of enclitics for one or more of the set of relations represented by the particular case, e.g. the nominative in a nominative-ergative system, is irrelevant.

Table 5: Djaru Case Marking and Enclitics.

	disyllabic vowel stems	long vowel stems	consonant stems	enclitic 1st pers. sing.	
Nom	*-0*	*-0*	*-0*	*-rna*	S
Nom	*-0*	*-0*	*-0*	*-yi*	0
Nom	*-0*	*-0*	*-0*	---	Comp
Erg	*-nggu*	*-lu*	*-Du*	*-rna*	A

2.2.3 *Class Marking*

In some prefixing languages the system of prefixed noun class markers shows case distinctions. There are sometimes oppositions between the presence and absence of a class marker and also oppositions (usually suppletive) within the set of markers. In Mara, for instance, (Heath 1981:71ff) the case system distinguishes nominative, locative-allative, ablative, purposive and pergressive (perlative) with nominative encoding all core relations (plus associated complements - see section 2.2.1). However, the class-marking system makes a distinction between absolutive and oblique (here the term ***absolutive*** is useful for describing marking) with the oblique covering A as well as instrumental and locative-allative, etc. The absolutive forms cover S and 0 plus associated complements. The combination of the two systems of marking is displayed in Table 6. Note that A and instrumental are distinguished in that A but not instrumental is crossreferenced on the verb.

Table 6: Mara Case and Class Marking

Case		Class Markers					G.R.
		Msg	Fsg	Ne	Dual	Plur	
Nom	*-0*	*0-* / *na-*	*n-* / *ya-*	*n-* / *n^{y}a-*	*wurr-* / *wirri-*	*wul-* / *will-*	S, 0 / A, inst
Loc/All	*-yu(rr)*	"	"	"	"	"	
Abl	*-yani*	"	"	"	"	"	
	-yana	"	"	"	"	"	
Purp	*-ni*	"	"	"	"	"	
Per	*-ya*	"	"	"	"	"	

In Mangarayi (Merlan 1982:57) there are three noun classes (masculine, feminine and neuter) and the nominative encodes all core relations and for the neuter class, the instrumental as well. The class-marking system, however, makes a nominative-accusative distinction for masculine and feminine nouns and an absolutive-ergative distinction for neuter ones. The Mangarayi paradigms are displayed in Table 7.

Table 7: Mangarayi Case and Class Marking

	'Woman'	'Man'	'Tree'
S	*ngarla-gardugu*	*ṇa-malam*	*ḷandi*
A	*ngarla-gardugu*	*ṇa-malam*	*ṇa-ḷandi*
O	*ngan-gardugu*	*malam*	*ḷandi*
Dat.	*ngaya-gardugu*	*ṇa-malam-gu*	*ṇa-ḷandi-wu*
Loc.	*ngaya-gardugu-yan*	*ṇa-malam-gan*	*ṇa-ḷandi-yan*
All.	*ngaya-gardugu-lama*	*malam-galama*	*ḷandi-lama*
Abl.	*ngaya-gardigi-wana*	*malam-gana*	*ḷandi-wana*
Per.			*ḷandi-yiwa*

In Burarra there is no case marking, but the four noun classes distinguish absolutive (*an-*, *dʸin-*, *mun-*, *gun-*) and oblique (*ana-*, *dʸi*, *mu* and *gu-*).

2.3. Distribution of Case Marking

In Indo-European languages the case marking for the core grammatical relations is not randomly distributed inasmuch as nouns of the neuter gender class do not have distinct forms for nominative and accusative (see Table 3) and nouns in this class are almost all inanimate (although there are numerous inanimates in the masculine and feminine classes). In Australian languages case marking adheres to a certain pattern of marking. In quite a few languages the accusative is found only on pronouns as in Gunya, but often it is found on some other semantic classes of nominal as well. In fact on the basis of the distribution of the accusative marker, it is possible to classify sub-classes of nominal in a hierarchy that runs thus:

first and second person pronouns
third person pronouns
personal names and kin terms
human
animate
inanimate

We can then say that accusative marking is almost always

distributed over this hierarchy from top to bottom without discontinuity and with any of six cut-off points. We find languages with no accusative marking, accusative on first and second person pronouns only, accusative on all pronouns, accusative on pronouns plus personal names and kin terms, accusative on these classes plus humans, and so on. This is illustrated in Table 8 where a + indicates the presence of accusative marking.

Table 8: Distribution of Accusative Marking

	pronouns	kin/pers	human	animate	inanimate
Wangkumara	+	+	+	+	+
Thargari	+	+	+	+	–
Ritharngu	+	+	+	–	–
Nhanda	+	+	–	–	–
Margany/Gunya	+	–	–	–	–
Yalarnnga	–	–	–	–	–

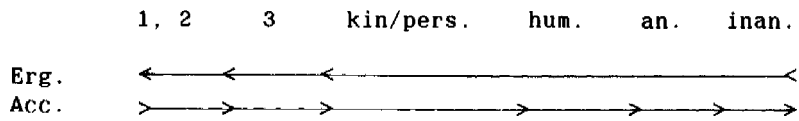
Ergative marking if found on any nouns is found on all nouns. In some languages it also occurs on third person pronouns, but only two dozen or so languages have ergative marking on all pronouns and another half dozen or so have ergative marking on some first and second person pronouns usually the singular ones.

The hierarchy given above has an obvious relationship with animacy, with the notion of control (entities higher on the hierarchy tend to control entities lower on the scale) and with a propensity to be the topic of a clause (see chapter ten). At least this is true insofar as first and second person pronouns are involved, but obviously third person pronouns can refer to humans, animals or inanimates. Interestingly third person pronouns behave differently in different languages with respect to core case marking. In some they all pattern with first and second person pronouns (accusative marking but no ergative); in others they all pattern with nouns (ergative marking with no accusative), and in others they exhibit both accusative and ergative marking.

In Gumbainggir third person pronouns show ergative marking but no accusative and since kin terms and personal names in this language have accusative marking there is an exception to the implicational hierarchy illustrated in Table 8.

Table 9 illustrates the general pattern of distribution for ergative and accusative marking. The arrows indicate the direction of spread over the hierarchy; accusative, if it occurs at all, occurs at the pronoun end of the hierarchy while ergative, if it occurs, is found at the noun end of the hierarchy. The arrow heads indicate possible cut-off points.

Table 9: Distribution of Ergative and Accusative Case Marking



Only one language has ergative and accusative marking on all nominals and that is the south-west Queensland language, Wangkumara. This is a typological curiosity in that it is perhaps the only language in the world with this pattern of marking. While we cannot explain in any strong sense why this pattern arose, we can relate it to the patterns found in other languages of the area. Wangkumara has two noun classes marked by suffixes that are transparently derived from case-marked pronouns. Other relatively closely related languages such as Diyari use pronouns in noun phrases in a determiner-like way (see (5.10) and (7.24) and these pronouns exhibit both ergative and accusative marking (compare Table 9). It seems that Wangkumara has amalgamated these nominative-ergative-accusative distinguishing masculine and feminine pronouns with nouns to produce a dual classifying system with each simple core relation receiving across-the board marking. The following illustration is from Breen 1976c. The pronouns and the case markers are illustrated in (2.3). Note that the case markers derived from the feminine pronouns are used for females and ALL plurals.

(2.3)	he	she	masc. sing.	other
nominative	*nhia*	*nhani*	*-ia*	*-(nh)ani*
ergative	*nhulu*	*nhanrru*	*-(u)lu*	*-anrru*
accusative	*nhinha*	*nhanha*	*-(i)nha*	*-(nh)anha*

(2.4) *karn-ia yanhtha-garla makurr-anrru*
man-nom walk-pres stick-erg(inst)
'The man walks with a stick.'

(2.5) *karna-ulu kalka-nga thithi-nhanha*
man-erg hit-past dog-acc(non:masc:sg)
'The man hit the female dog.'

This pattern of marking holds for the variety of Wangkumara described in McDonald and Wurm 1979, but there the feminine-derived markers are the only ones, i.e. there is no class distinction,

The hierarchical distribution of case marking in Australian languages and in languages generally has been discussed a good deal in the comparative-typological literature over the

last decade. The same hierarchy manifests itself in other areas of the grammar such as ordering rules, number marking, advancement rules and so on. For this reason I will postpone further discussion of the hierarchy until chapter ten where all the relevant manifestations are brought together.

2.4 Systems for Expressing Core Relations.

Whatever the distribution of ergative and accusative markers, if both occur in a language, there is a three-way nominative-ergative-accusative case distinction. A few languages have a two-way distinction, nominative-ergative, and a few a two-way distinction,nominative-accusative. Some languages in the north have neither ergative nor accusative; the unmarked form, the nominative, is used for S, A and O.

Cross-referencing bound pronoun systems all operate on a subject-object basis (but see section 6.6). In theory any core case system can occur with or without cross-referencing yielding eight (4x2) possible systems for expressing the core relations. The eight combinations of case and cross-referencing are shown in table 10.

Table 10: Treatment of Core Relations

	cross-referencing	no cross-referencing
Nom/Erg/Acc	1 *common* Western Desert Biri, etc.	2 *common* Diyari Dyirbal, etc.
Nom/Erg	3 *not common* Warlpiri Kalkatungu, etc.	4 *rare* Yalarnnga
Nom/Acc	5 -	6 *rare* Ngarluma Lardil, etc.
Nom	7 *common* Tiwi, Iwaidja	8 -

As can be seen two cells in table 10 are unfilled. The absence of languages with neither case nor cross-referencing to distinguish the core relations is hardly surprising. In

general it is true that a language needs some device to distinguish A from O and strict word order[6], as in English, is not used in Australian languages.

The other empty cell (languages with a nominative/accusative case distinction and cross-referencing) is essentially an accidental gap, but is related to the paucity of nominative-accusative systems in Australia generally. The following notes on the frequency and distribution of the six occurring types should be read in conjunction with the map.

Type 1:

Case:	nominative/ergative/accusative
Agreement:	subject/object.

Languages with nominative/ergative/accusative case distinction plus subject and object sets of cross-referencing bound pronouns are common. Examples from Biri were quoted in chapter one ((1.10) and (1.11)). Other languages with this system include various dialects of the Western Desert language, Ritharngu in north-east Arnhem Land and a number of languages in southeastern Australia such as Wemba-Wemba.

Type 2:

Case:	nominative/ergative/accusative
Agreement:	-

Languages with a nominative/ergative/accusative case distinction and no cross-referencing bound pronouns are fairly numerous. They are concentrated in a band running from Perth to Cape York with another group in north-west Western Australia (see map). The better known examples include Dyirbal, Yidiny, Diyari and the Arandic languages. Illustrations from Marganyy were given in chapter one ((1.4), (1.5), (1.6) and (1.7)).

Type 3:

Case:	nominative/ergative
Agreement:	subject/object

This type is not common since a strictly nominative/ergative case distinction is not common. There is an areal concentration of this type in the northern part of Western Australia extending into the Northern Territory. This area embraces Warnman, Yulbaridja, Warlpiri, Walmatjari, Pintupi and Djaru. There is also Kalkatungu in western Queensland, a neighbour of Yalarnnga which cross-references only the subject of non-singular imperatives and Dharawal and some closely related languages on the south coast of New South Wales. The non-Pama-Nyungan languages, Nyigina, Kuniyanti, Ngandi Rembarrnga, Ngalakan, and Murinypata also belong to this type.[7] The following examples are from Djaru. Note the

distinct form for the first person pronoun in A relation (*ngadyunggu*) and the distinct enclitic for this pronoun in O relation. In this language the clitics are normally attached to an aux(iliary) particle, but they may be enclitics to interrogatives and negatives as in (2.8).

(2.6) *ngadyu* *nga=rna* *marla-nggu* *marn-l*
I(S) aux-I(SUBJ) hand-erg(INST) talk-past
'I talked with (my) hand(s).' (sign language).

(2.7) *ngadyu-nggu* *yambi-(ng)gu*[8] *nga=rna*
I-erg(A) big-erg aux-I(SUBJ)
dyadyi *lan-i*
roo spear-past
'I, who am big, speared a kangaroo.'

(2.8) *wagurra=yi-n* *lan-gu*
not-me(O)-you(SUBJ) spear-purp
girnimiiny-dyawu-lu
bottle:spear-having-erg(A)
'Don't you spear me with a bottle spear.'

Type 4:
Case: nominative/ergative
Agreement: -

Yalarnnga in western Queensland provides the only example. In Yalarnnga there is no agreement except for the rather marginal cross-referencing of non-singular subject in the imperative. For an illustration see (4.5a)

Type 5:
Case: nominative/accusative
Agreement: subject/object

No examples.

Type 6:
Case: nominative-accusative
Agreement: -

This type is fairly rare. It is represented by a group of languages in north-west Western Australia (Ngarluma, Yindjibarndi, Pandjima and Martuthunira, and another group in the Gulf of Carpentaria: Lardil, Kayardild and Yanggaal. The following example is from Lardil which happens to have a distinction in the accusative and locative between future and non-future forms (see also Pitta-Pitta examples in section 4.3.2)

(2.9) *ngithun thapu waangkur ritwar*
my brother go:fut east:fut
'My brother will go east.'

(2.10) *ngithun thapu wungithur yadaman-kur*
my brother steal:fut horse-fut:acc
'My brother will steal a horse.'

Type 7:
Case: nominative (for S, A and O)
Agreement: subject/object

This type is common among the non-Pama-Nyungan languages of the north and includes Tiwi, Iwaidja, Gunwinggu (Kunwinjku) and Nunggubuyu. The only qualification needed is that in some languages sequences of A and O markers prefixed to the verb are difficult to analyse and the identification of A with S (the basis for describing the system as subject versus object) is dubious synchronically. This is discussed further in section 6.6.

The following illustration is from Gunwinggu and is based on examples in Oates 1964.

(2.11) *ngaye nga-guyen*
I I(SUBJ)-be:tall
'I am tall.'

(2.12) *ngaye nga-0-bom ngaleng*
I I(SUBJ)-3-hit her
'I hit her.'

(2.13) *ngaleng nga-n-0-bom ngaye*
she me-acc-3-hit I
'She hit me.'

Type 8:
Case: nominative (for S, A and O)
Agreement: -

No examples.

2.5 Roles and Relations

I take roles to be relations that are perceived to exist in the universe. These include relations such as agent, experiencer, patient, instrument, etc. The set is open-ended and ill-defined. It is not based on language and no inventory of roles can be established by linguistic means. What language provides is a set of morpho-syntactic and lexical pigeon holes for the classification of our experience of the universe. Morpho-syntactic entities such as S, A, O and also

absolutive, locative, etc. have meanings derived from characteristic reference.

If a man hits a dog with a stick, the man will normally be perceived as an agent, the dog as a patient, and the stick as an instrument. Agent, patient and instrument are salient roles. Speakers are likely to be in general agreement that they exist in relation to activities such as hitting, cutting, scraping, peeling, etc. Languages normally provide a common morpho-syntactic slot for the expression of the hitter-breaker-cutter-scraper-peeler (the A slot),[9] another slot for the patient (the O slot) and another slot again for the instrument. However, some relations such as that between the name of a language and predicators meaning 'speak (language X)' as in ***Martha spoke Aramaic*** fall between salient roles such as patient and instrument. It is easy enough to understand what the real-life relation is, but the relation is peculiar to one or a small set of predicators. It does not align naturally with patients (one does not do anything to the language) nor with instruments (though it is somewhat instrument-like in that one can be seen as using the language to communicate). Not surprisingly different languages put the language complement into different pigeon holes, sometimes allowing options. Thus we find in Australia the language name in the accusative in Diyari, the dative in Kalkatungu, the locative in Yidin^{y}, the perlative in Djapu, the instrumental in Muruwari and Malakmalak, and the ablative in Ngalakan, Warumungu and Ngandi. Each case has a meaning or meanings and putting a language name in a particular case expresses a way of looking at the referential role 'language complement of a predicator meaning 'speak (language X)'.[10]

The roles expressed by S, A and O in Australian languages can be described fairly simply since they are much the same as the roles expressed by these relations in English. A expresses agents and experiencers and O expresses affected patients, effected patients (with verbs of making) and neutral patients (with verbs of perception). S expresses agents, patients and experiencers. The principal difference is that Australian languages do not have subjects with no reference as in ***It rained*** or subjects that are co-referential with complement clauses as in ***It suddenly struck me that Mary was right***. There are not normally nominals holding core relations with one verb but fulfilling the semantic valency requirements of another as with English ***seem*** as in ***John seems to like it*** where ***John*** is subject of ***seems***, but where the animacy of ***John*** is relevant to ***like*** but not to ***seems*** (cf. ****The stone seems to like it***). In Transformational Grammar ***John*** would be considered to have been raised from the dependent clause to the main clause (subject to subject raising) and in some versions of this theory ***Goliath*** would have been considered raised in ***Everyone expected Goliath to beat David*** (subject to object raising).

There do not seem to be examples of this in Australian languages.

In English there are occasional examples of subjects with unusual roles such as location as in *The box contains books*. These are not found in Aboriginal languages. There can be inanimate entities encoded as A (*The trees blocked him, The lightning struck her, The flood washed it away*). It seems these are perceived of as agents. In a few languages, however, inanimate entities that appear to act on other entities do receive special treatment. In Tyaapukay (Hale 1976b) and Yidin^{y} the normal transitive construction is used, but the verb is suffixed with the reflexive marker (which normally derives intransitive verbs - see section 4.3.1). The following example is from Yidin^{y} (Dixon 1977:283),

(2.14) *nganyany banggaaldu gundaa-dyi-nyu*
me:acc axe:erg cut-refl-past
'An axe cut me'
'I cut myself (accidentally) on an axe.'

Of course English uses the reflexive construction for accidents with inanimates as can be seen from the second translation. We however encode the agent/patient as A and as O (*John hurt himself with the pick*) not just as O as in (2.14).

In many languages two-place predicators fall into a major class and a minor class. The major class embraces activity verbs involving impingement on a patient and we dub these verbs *transitive* (cf. English *hit, scrape, scratch, smash, pull, paint*, etc.) The minority class predominantly includes verbs that do not involve impingement (cf. English *be fond of, be jealous of, be wary of, be frightened of*). One can never predict the precise membership of the two classes and semantically similar verbs can appear in different classes (cf. English *love, like, be fond of, be keen on*).

In Australian languages it is common to find that a handful of two-place predicators take a nominative S (typically expressing the role of experiencer) and a complement that is (usually) in the dative. The meanings involved tend to be *look for, wait for, cry for, like/desire/want, be angry with, be jealous of* and *to be frightened of* (verbs of fearing sometimes take a complement in the aversive or causal case - see section 3.5.6). These verbs are often referred to as *middle* or *semi-transitive* verbs. In some languages a couple of verbs may appear as transitive verbs or as middle verbs. In Alawa (Sharpe 1972:102-3), Djaru (Tsunoda 1981:149) and Kalkatungu (Blake 1979a:44), verbs for *see* and *hear* are normally transitive, but can be used intransitively with a dative complement to indicate the sense of

try to see, look out for or *listen for*. Cook (1982:24) reports that in Luritja *ngurri* occurs as an intransitive meaning *to seek* or as a transitive meaning *to find*. The same applies to Kalkatungu *nganhthama* 'seek/find'. In Djapu it seems this alternation is more general so that while a successful act of hitting will be described transitively, an unsuccessful attempt is described via the middle construction (F. Morphy 1983:38). Something similar happens in Warlpiri, but there the agent appears in the ergative and the patient in the dative (Hale 1973:336). Some languages derive middle verbs from transitive ones using a pre-tense derivational affix. See sections 4.3.2 and 4.3.4.[11]

There do not seem to be examples of verbs with the 'normal' relationship between role and relations reversed, i.e. Australian languages do not appear to have verbs of the type represented by *please, plaît à* (Fr), *piacere a* (It) and *gustar a* (Sp) where S encodes the pleasing phenomenon rather than the experiencer.

2.6 Summary

The main burden of expressing grammatical relations in Australian languages is borne by case marking. Over 80% of Australian languages employ case marking for the core relations (and over 90% employ case marking for non-core relations). One usually finds ergative marking on nouns and accusative marking on pronouns.

Sets of bound pronouns, which all constitute cross-referencing agreement systems, occur in something like three quarters of Australian languages. These bound pronouns operate on a subject/object basis, though in some prefixing languages the forms occurring in transitive clauses are unanalysable and must be interpreted as portmanteaus expressing both A and O.

The expression systems in relation to the prefixing/suffixing classification may be summed up as follows:

prefixing
All cross-referencing
Majority have no core case marking
Some have nominative/ergative opposition

suffixing
Majority cross-referencing
Almost all have nominative/ergative/accusative opposition
A few have nominative/accusative opposition
    (and no cross-referencing)
A few have nominative/ergative opposition
    (and all of these except Yalarnnga have
    cross-referencing).

An interpretation of the distribution of core case marking and other related features is offered at the end of the next chapter (section 3.7) in the context of case systems as a whole. Further general discussion is provided in chapter ten.

NOTES

1. In some varieties of the Western Desert language there are suffixes marking intransitive subject as well as direct object with personal names and consonant stems. In some Arnhem Land languages there are suffixes for these functions with all nouns. In Warndarang, for instance, a suffix *-yu/-nyu/-u/-gu* appears on nouns in sentences (not in citation) when no overt case suffix follows (Heath 1980b:25).

2. With singular pronouns there is often an overt nominative.

3. The vocative is used in addressing someone. The distinct vocative allomorph *-e* appears in Caesar's '*Et tu, Brute*' 'And thou, Brutus'.

4. Where there is no verb the complement could be taken to be a predicator, but there is no morphological hint of this.

5. In Nhanda the accusative is also used with demonstratives and numerals (O'Grady et al. 1966a:121).

6. See chapters two and three of Mallinson and Blake.

7. Yanyula and Yukulta have a nominative-ergative case system (the marking appears only on nouns; with pronouns, S, A and O are unmarked), but the bound pronoun systems distinguish S, A and O in some person/number combinations.

8. In Djaru as in a number of other Australian languages there is progressive dissimilation of sequences of nasal-stop within a word. Here and elsewhere in the text I will show the dissimilated segment in brackets.

9. A is not always directly demarcated. It commonly shares its case marking with S, but is distinguished from the latter in that it is syntagmatically opposed to O.

10. In Kalkatungu the local case for 'facing, opposite' is an alternative to the dative. In Yanyula the language name appears in a case peculiar to that role (Kirton 1971: 60).

11. In Latin a few verbs alternated in transitivity. *Temperare*, for instance, took an accusative complement when it meant 'govern' or 'direct' but a dative one when it meant 'to limit'.

Chapter Three

THE OTHER GRAMMATICAL RELATIONS

3.1 Introduction

This chapter deals with the non-core relations that can be held by nominals.[1] In most Australian languages these relations are expressed via a case system. Even those prefixing languages that do not distinguish the core relations by case usually have cases for the non-core relations, though some have postpositions. A few prefixing languages, mostly in the Darwin area, have prepositions with local functions. In some prefixing classifying languages case distinctions are also made by suffixation to the class prefixes, by suppletive alternation within the prefix system and by the presence versus absence of a class prefix. This has been illustrated in chapter two. See Table 6 for Mara and Table 7 for Mangarayi.

Some non-core relations are cross-referenced, principally the indirect object of intransitive and transitive verbs, and sometimes the potential for cross-reference versus the absence of it marks a distinction within a case (see (3.3), (3.9) and (3.10).)

Most languages have two layers of case-like suffixes. The outer layer corresponds to the case systems of the classical languages while the inner layer is essentially adnominal. The markers for the possessor, for instance, can usually be followed by the markers for the relation of the possessed nominal within the clause. If we have a translation of *He went to the doctor's house*, it is usually of the form *He went house(-to) doctor-of-to*. The appearance of a possessor suffix (usually called *genitive*) followed by a case suffix is unremarkable, but some languages, particularly the Western Desert language and its close relatives, treat a great number of relations as adnominal and express them via pre-case suffixes. In Warlpiri, for instance, *The man chased the child to the camp* is literally *Man-erg child chased camp-to-erg*. The grammatical status of pre-case suffixes is controversial. Some Australianists regard them as

derivational and others as case inflections, though the latter group has to admit that some formations are lexicalised (see examples in sections 5.2.1 and 5.2.2). Suffixes meaning 'having' (see (a) in section 1.5) or 'lacking' always belong to the inner pre-case group. Where the suffixes for possessor are distinct from the dative, they normally belong to the pre-case group. Quite often the same forms cover dative functions (such as indirect object) and the possessor (genitive) function, so it is necesary to assign the forms dual status: pre-case (genitive) and case proper (dative). Ablatives often appear adnominally as well as in the case system proper, and in languages that exploit the pre-case system more fully one finds functions such as the following covered: *to, towards, intending, by way of, along, adjacent to, related to*. The status of pre-case suffixes is discussed in chapter five. The following discussion is principally concerned with distinctions within the case system proper.

3.2 Case Systems

Australian case systems usually contain from about six to eight cases, though prefixing languages that lack the ergative and accusative naturally have fewer. The following inventory is widespread although a separate causal is not as common as the others.

(3.1)

nominative	
ergative	
accusative	
dative	'for'
locative	'at', 'in', 'on'
allative	'to'
ablative	'from'
causal	'because of'

The nominative, ergative and accusative have been dealt with in the previous chapter. Basically they express the relations S, A and O respectively, plus their complements. The ergative very often expresses the instrumental relation as well, but A and instrumental can usually be distinguished on syntactic grounds. The dative covers functions such as indirect object, purpose and beneficiary. The other cases express the roles indicated by the 'glosses' in (3.1).

On the basis of differences in case markers, nominals usually divide into common nouns/adjectives, personal names, kin terms, personal pronouns, demonstratives and interrogative pronouns. Singular personal pronouns usually decline differently from non-singular ones and third person pronouns sometimes decline differently from first and second. Within the common noun/adjective class there are often different paradigms for consonant stems of various types, for

disyllabic vowel stems and for longer vowel stems. In sum, an Australian case system consists of a dozen or more different paradigms after the manner of Latin or Russian. The following paradigms are from Gunya and they illustrate declensional differences between vowel stems, *-i* stems and non-singular pronouns. Most of the oblique forms of the pronouns in the language are built on a genitive stem. The genitive of *ngali* is *ngalingu*.

Table 11: Gunya Nominal Paradigms

	barri 'stone'	*wangal* 'boomerang'	*ngali* 'we two'
Erg.	*barri-nggu*	*wangal-tu*	*ngali*
Nom.	*barri*	*wangal*	*ngali*
Acc.	*barri*	*wangal*	*ngali-nha*
Dat.	*barri-gu*	*wangal-gu*	*ngali-ngugu*
Loc.	*barri-ngga*	*wangal-ta*	*(ngali-ngunda)**
All.	*barri-gardin*^{y}	*wangal-gardin*^{y}	*ngali-ngugardin*^{y}
Abl.	*barri-mundu*	*wangal-mundu*	*ngali-mundu*

*Gunya form not recorded. *ngalingunda* is from the closely related Margan^{y}

There are quite a few instances of distinctions in one paradigm but not in another. Sometimes a distinction appears only in a single not-too-prominent paradigm. In Yidin^{y} for instance (Dixon 1977:124, 157, 187, 191, 437), instrumental locative and allative are syncretised except that locative and allative are distinguished in deictics and locational qualifiers (see section 3.6), and instrumental and locative are distinguished only in the inanimate indefinite deictic. In Bidyara (Breen 1973:63) a comitative (as in *X went with Y*) is distinguished only with demonstratives; with other nominals it falls together with the locative. Bidyara is interesting in the way it expresses 'motion to'. With nouns and demonstratives it is expressed by the dative and with pronouns it is expressed by the locative. In no paradigm does it have a form of its own, but a comparison of paradigms gives formal evidence for separating out a 'motion to' case, i.e. an allative,[2]

(3.2)		noun	pronoun	
	dative	*-gu*	*-gu*	'for'
	allative	*-gu*	*-da*	'to'
	locative	*-da*	*-da*	'at'

3.3 Cross-referencing

The systems used for cross-referencing grammatical relations are described in some detail in chapter six. At this point it is only to be noted that the most common system involves two sets of pronominal forms, a subject set and an object set. A few languages have additional sets, mostly for indirect object.

Since the subject is cross-referenced but not the instrumental, it follows that in cross-referencing languages where the ergative case expresses both A and the role of instrument, the operation of the cross-referencing serves to distinguish two grammatical relations within the one case: A (cross referenced by the subject forms) and instrumental (not cross-referenced). This point is illustrated in the following Kalkatungu sentence.

(3.3) *marapai-thu* *lyuwati-thu* *ngai*
woman-erg(A) two-erg(A) me
inytyi-nha-ngi-yu *kutyanparru-thu*
hit-past-me-they:2(SUBJ) nut-erg(inst)
'The two women pelted me with nuts.'
(*inytyi* means *to hit with a missile*)

3.4 Adpositions

Adpositions, i.e. prepositions and postpositions, are used in some of the non-Pama-Nyungan languages of the north. In Tiwi, for instance, a language lacking case marking, there are two prepositions, *ka(ghi)* and *kapi*, both meaning 'at, in, to' (Osborne 1974:76). In Gunwinggu/Kunwinjku, a language with some case suffixes, there is a postposition *kandyi* 'underneath', and two prepositions *kore* 'at, in, to' and *yiman* 'like, as'. These adpositions are used with the base form of the noun (the nominative), e.g. *kore kunbalanya* 'to Oenpelli'. They do not govern an oblique case (Carroll 1976:100-02). In Garawa there are two prepositions *dyirdi* and *marda*, both meaning '(in company) with'. These are like the adpositions of the older Indo-European languages in that they govern a case, in particular what the Furbys call the referent case (Furby and Furby 1977: 34-5). I prefer to label the case concerned the *dative* since it expresses indirect object and other functions associated with indirect objects in other languages.

(3.4) *dyiladyba ngayi wulani marda*
go I yesterday with
baya-mugu-yngyga bagi badyangu-wuya-yngyga
child-pl-dat and dog-dual-dat
'I went yesterday with the children and two dogs.'

In theory adpositions can mark distinct relations just as case suffixes can, but in practice we find that in many languages a number of adpositions often mark subdivision of the same relation. In English, for instance, a *locative* relation can be established by reference to the valency of a verb like *live* (in the sense of 'inhabit'). It requires the expression of the 'liver' and a location, *He lived in a bungalow/over the shop/under canvas/on the top of a steep hill*, etc. The valency of the verb provides a substitution frame into which certain prepositional phrases and certain adverbs (*He lived underneath/upstairs/* etc.) can be put. It serves to demonstrate (what we know by reference to meaning anyway) that *on*, *in*, etc. mark the locative relation plus some more specific orientational relation in each instance.

It is not clear from the literature on Australian languages how the distinctions made by adpositions compare with relations established by reference to other features of the morpho-syntax. There tend to be a number of local forms corresponding to English *on*, *behind*, *over*, etc. and I would assume they represent sudivisions of the locative relation.

3.5 Non-core Relations

The following is an inventory of the non-core relations commonly distinguished in the morpho-syntax of Australian languages.

3.5.1 *The 'Dative Group'.*

Typically there is a dative case that expresses purpose, beneficiary, indirect object, etc. Most of these functions can be shown to be separate grammatical relations by reference to criteria such as cross-referencing, correspondences with other constructions and so on.

The dative suffix is very often *-ku* (alternatively spelled *-gu*) and this is one of the most widespread grammatical root in Australian languages. In some languages there is alternation between *-ku* and *-wu*, the former appearing in post-consonantal (strong) position and the latter in post-vocalic (weak) position.

Here is a fairly complete list of the functions that are expressed by the dative case in at least some languages:

(a) the indirect object of intransitive verbs (*He is*

jealous of me)
(b) purpose (*He went for the meat*)
(c) beneficiary (*He made the spear for me*)
(d) possessor (*bird's nest*)
(e) recipient of verbs of giving (*He gave the spear to me*)
(f) cause (*He hit me on account of his brother*)
(g) through, across, among, along.

In some languages separate forms express some of these functions. A separate genitive expressing the possessor relation is found in at least a few score languages, and the local function *through/across/among/along* is expressed by a separate perlative (pergressive) case in a dozen or so languages or by the locative in others . This function and the causal function are not typical of the dative, the causal function being expressed more often by a causal case or the ablative.

In Pitta-Pitta one case covers the indirect object of verbs meaning *to like, be jealous of, to wait for* and *to look for* plus the local function *through/across*. Another case expresses possessor, beneficiary and purpose. This division of labour provides a problem for the naming of the cases. My preference is to use dative for the case expressing the indirect object on the model of Latin where the dative marks the non-subject complement of verbs such as *favere* 'to favour', *invidere* 'to envy' and *imminere* 'to threaten'. The dative in Latin marks complements expressing entities that are not directly impinged on by an activity or state and this applies to the case I would call the dative in Pitta-Pitta. The accusative, of course, is the case characterising impinged on or affected patients, but one cannot predict from reference whether a particular verb will take an accusative or dative complement.

I will use the term *indirect object* for the grammatical relation held by the non-subject complement of an intransitive verb (whether marked by the dative case or analogous adposition or cross-referencing) and for a similarly treated complement of a transitive verb such as *give*. Thus I will use *indirect object* for *the man* in *I gave the book to the man* but not in the double object construction *I gave the man the book*.[3]

In Pitta-Pitta the possessor/beneficiary/purpose case requires a separate label. In Blake 1979b I chose to call it *purposive*. The following examples illustrate the dative/purposive contrast in Pitta-Pitta.

(3.5) *yatha-ya* *nganytya* *in-ku*
like-pres I:nom(s) you-dat
'I like you.'

(3.6) *kultpila-nga ngantya karrnta-ka*
kangaroo-purp I:nom(S) go-past
'I went for [to hunt] kangaroo.'

It is quite common for a handful of non-impingement verbs to take a dative complement. Pitta-Pitta is unusual only in that the marking is separate from the marking for purpose.

As mentioned above there is quite often a genitive distinct from the dative. Even where there is not, there are often syntactic grounds for splitting the dative into a case proper and a pre-case suffix. Consider the following example from Margany (Breen 1981:300-309). In this language the genitive is distinct from the dative morphologically (the distinction being made in the personal pronoun paradigms but not the noun ones) and in (3.7) we can see that it precedes the locative.

(3.7) *ngaya waba-ngu nga-tyu-ngga bama-ngga*
I go-purp I-gen-loc brother-loc
'I'm going with my brother'.

Now consider the following example from Kalkatungu where there is no morphological distinction between a genitive and a dative. Clearly one needs to distinguish two homophonous forms, a pre-case, which I shall gloss as genitive, and a dative case.

(3.8) *ngat ngkuma-mi nyun-kuwa-ku nhangkurr-ku*
I seek-fut you-gen-dat dish-dat
'I will look for your dish.'

The dative marks the complement of *ngkuma* 'look for'. The marker is *-ku* or the longer form *-kuwa*. The genitive is always represented by the longer form when a case suffix follows.

Where there is a genitive/dative distinction the role of beneficiary is usually expressed by the dative but it may be expressed by the genitive as in Anguthimri (where the genitive is morphologically distinct from the dative) and Kalkatungu (where the genitive is syntactically distinct from the dative).[4] A few languages like Gidabal have a distinct benefactive case.

Note that the genitive is not usually used to express the possessor where the possessed entity is a part of the possessor (*John's arm, the trunk of the tree*). This point is taken up in section 5.3.2.3.

The cross-referencing system often makes distinctions in this area by cross-referencing beneficiary but not purpose. In this connection it should be noted that beneficiaries are usually human and purpose arguments inanimate (also beneficiary tends to occur in transitive clauses and purpose in

intransitive ones). The following contrast is drawn from Ngandi (Heath 1978a:43-44, 190). In (3.9) *dyawulpa* 'old man' is a beneficiary and is cross-referenced in the verb, whereas in (3.10) *gung* 'honey' representing the purpose of going is not cross-referenced.

(3.9) *nga-nu-bak-may ṇi-narri-ku ṇi-dyawulpa-gu*
I-him-ben-got ṆI-that-dat ṆI-old:man-dat
'I got it for the old man.'

(3.10) *ṇi-gung-gu ba-ga-rudhu-ngi*
ṆI-honey-dat they-sub-go-past:cont
'They used to go for honey.'

There are two methods of cross-referencing dative arguments. In some languages there is a series of cross-referencing forms for indirect object, while in others the direct object forms are used together with a marker to signify that the O forms refer to the indirect object. In Ngandi, *bak* performs this function. In a few languages an indirect object is advanced to direct object and takes the O cross-referencing forms. These advancements are described in section 4.4.

Some prefixing languages cross-reference a genitive on the head noun. In Ngandi *-gu* covers the genitive function as well as expressing beneficiary and purpose, so the genitive (or possessor relation) can be said to be distinguished by the cross-referencing. In this example *ma-* and *gu-* are class prefixes.

(3.11) *ma-warngurra?-gu gu-rerr-?nguthayi*
MA-bandicoot-gen GU-camp-its
'The bandicoot's camp.'

Beneficiary is cross-referenced in the verb, possessor on the head noun, and purpose is not cross-referenced at all.

Although the recipient is often expressed by the dative,[5] some languages employ the allative for this function (analogous to English *I gave the book to the man*). It is also common to find the double object construction analogous to English *I gave the man the book* where both the recipient and patient are marked like the O of a transitive verb.

In some languages both constructions are found, the double object construction and the construction with the recipient in the dative or allative. This is the situation in Alyawarra where the allative is used (Yallop 1977:80).

(3.12)a. *antha awiyawala tiipa*
give:imp boy:all axe
'Give the axe to the boy.'

(3.12)b. *antha* *awiya* *ilipa*
give:imp boy axe
'Give the boy the axe.'

In other languages one or other of the constructions is reported and since some of the sources are brief and are based on only brief research it is possible that the other does exist but has not been reported.[6]

The two object construction provides a problem for description since it raises the question of which object-like entity is the true direct object. I am not sure that this can be determined in some languages, but in languages with cross-referencing it is generally the case that the O series refers to the recipient object not the patient one so at least the recipient object has this O property.

In Dyirbal and some other languages of north-east Queensland there is a 'giving' construction analogous to ***The mayor presented the winner with the sash*** with the recipient expressed as O and the gift in the case used for instrumental function. Moreover, there is a construction with the recipient expressed via a genitive adnominal to O. Dyirbal in fact has these three possibilities:

(3.13)	giver	gift	recipient
	A	O	dative
	A	INSTR	O
	A	O	genitive

It would be nice to be able to report on the constructions used with three-place verbs other than those for ***give***, but data is scarce and sporadic and it is difficult to generalise with any certainty.

In a small number of languages the dative expresses ***indirect cause*** or ***reason***. This function is not well exemplified in the literature, but it seems that the dative is being used to cover some or all of the situations covered by the causal case (see below). The following example is from Warluwara (Breen 1971:175)

(3.14) *tyirarna* *yaka* *yinya* *yiwa* *lalanganga*
speared emph him he brother:dat
'He speared him on account of his brother.'

In a few languages the dative case has a local function expressing ***through***, ***across*** or ***along***, a function that I like to refer to as ***passage***. The following example is from Uradhi (Crowley 1983:342).

(3.15) *ayuba* *utuda-gu* *ana-n*
I bush-dat go-past
'I went through the bush.'

As noted earlier this function is expressed by the dative in Pitta-Pitta too, but it is more commonly expressed via the locative or via a special perlative/pergressive case.

3.5.2 *Locative (and Perlative)*

Most Australian languages have a locative case. Usually it covers only the role of location without respect to specific orientation (*under, over, beside*, etc.), this being expressed by a separate word probably best interpreted as a defective noun. A locative may refer to time as well as to place (see section 3.6)

In a handful of languages a single case covers the roles of location and instrument. It is probable that two separate grammatical relations can be established. One widely applicable criterion would be that while location can be expressed with pronouns instrument cannot. This is related to the fact that in many Australian languages pronouns cannot have inanimate reference. Another criterion would be the possiblity of a co-occurring locational nominal with locatives but not with instrumentals (see (3.27) below).

The accompaniment function that is expressed by *with* in English (*Tom sat/went with Bill*) is usually expressed by the locative. In Pintupi, a language that cross-references humans in a variety of non-core relations, we find not surprisingly that such 'human locations' are cross-referenced. This is illustrated in (3.16) where *minyma* is represented by the enclitic *tyananya*, a form of the object series (see also Table 14). The suffix *-wana* is a pre-case suffix preceding a nominative zero (Hansen and Hansen 1978:58).

(3.16) *ngurra-wana-0-tyananya-pula* *ngarama* *minyma*
camp-along-nom-them-they:two stood woman
pirni-ngka
many-loc
'Those two stood in the camp with the women.'

As noted earlier, Bidyara has a comitative case, distinct only with demonstratives, to express accompaniment (Breen 1973:62),

(3.17) *ngaya* *yulu-ninga* *wadyaal-gu*
I this-with go-intentional
'Im going with this fellow.'

A few languages have case suffixes distinct from the locative expressing *facing* or *opposite* or *in the direction of*. These include Kalkatungu, Yalarnnga, Guugu-Yimidhirr and Bidyara.

Some languages have case suffixes for *through/along*, the *perlative* or *pergressive*. Warluwara uses its

perlative form to express accompaniment with motion as in *I'm going with this man*. In Nunggubuyu there is a pergressive case and a *retrospective pergressive*, as Heath calls it, indicating a sense of *back with, back among* (Heath 1984:205ff). As noted earlier few languages use the dative to express *through*, etc.

3.5.3 *Instrumental*

In a majority of the languages with an ergative case this case expresses the instrumental as well as A. Two relations can be distinguished on some or all of the following grounds:

(a) **A** is cross-referenced but not instrumental (illustrated in (3.3) above).

(b) **A** but not instrumental is affected by detransitivising derivations such as reflexive-reciprocal formation (see 4.3.1) and anti-passive (see (4.3.2).

(c) Instrumental can occur with any verb, subject to semantic compatibility, whereas **A** occurs only with some two-place verbs (transitive ones).

(d) In some languages, instrumental, but not **A** can be re-expressed as *O* in certain derived constructions (instrumental advancement) (see 4.30) to (4.35)).

Languages in which the ergative expresses A and instrumental include Thargari, Yulbaridja, Warlpiri, Djaru, Kalkatungu, Gumbainggir, Ngiyambaa and Dyirbal.

In a dozen or so languages a common set of forms expresses locative and instrumental. From the comparative point of view it is convenient to consider these forms *locative* since in most languages these same forms express locative exclusively.

Languages with instrumental expressed via the locative case include various dialects of the Western Desert language, Warluwara and Yidin^{y}.

The ergative typically has forms such as *-lu, -ngku* and *-Tu* while the locative typically has forms like *-la, -ngka* and *-Ta* (*T* is an abbreviation for stops such as *t, rt* and *t*^{y} which appear after alveolar, retroflex and palatal consonants respectively, see also section 3.7 below). Since the two sets of case markers have the same consonants, any change involving the merging or loss of the vowels will produce a common form expressing A, instrumental and locative. This has happened in Nyungar, Wagaya, the Arandic languages, Kunjen and Wik-Munkan.

No Pama-Nyungan language has a form exclusively for instrumental. Yindjibarndi, an accusative Pama-Nyungan

language with a passive, uses the historical ergative forms (*-lu* etc.) to express instrumental and the agent of the passive (but most instruments are expressed via the 'having' construction illustrated in (3.18) below (Dench 1982:47)).

In Pitta-Pitta there is an ergative-nominative-accusative case opposition with the ergative expressing A and instrumental. However, in the future a common form expresses S and A and the 'future instrumental'. This curious arrangement is illustrated in section 4.3.2.

Among the non-Pama-Nyungan languages there are forms exclusively for instrumental such as Nunggubuyu *-mirri* and Ungarinyin *-nyine*. In these languages there is no ergative. Djingili and Ngarngu or Ngarndji, two languages of the Barkly Tableland, are unusual in having a separate instrumental case as well as an ergative and a locative case.

In a few languages such as Walmatjari instrument is expressed by a pre-case suffix meaning *having*, so that a sentence such as *The man hit the dog with a stick* is literally *The man, the stick-having one, hit the dog*. The same construction is used where the possessed item is not an instrument as in *The man with the wide-brimmed hat saw me* (Hudson 1978:20).

(3.18) *kunyarr* *pa-0-0* *pinya* *nganpayi-rlu*
dog aux-he-it hit man-erg
mana-tyawu-rlu
stick-having-erg
'The man hit the dog with a stick.'

In some prefixing languages such as Tiwi there is no marker for instruments. The instrument in Tiwi is expressed simply by a noun adjunct that is distinguished by not being cross-referenced (S, A, O indirect object and comitative are) and not marked by a preposition (locative and allative functions may be marked by prepositions). In this connection it should be noted that it is not uncommon for the marking of relations to be omitted in prefixing languages where the sense is clear from the context.

The instrumental typically refers to an object used to carry out an activity as in *hit with a stick* or *pierce with a spear*. In the nature of things most entities serving as instruments are inanimate but they need not be. Several grammars include examples with animate instruments such as *dog* in the following example from Ngaanyatjara dialect of Western Desert (Glass and Hackett 1970:82).

(3.19) *Inyika-lu* *marlu* *papa-ngka* *yirityu-nu*
Inyika-erg roo dog-inst/loc set:on-past
'Inyika caught a kangaroo with a dog.'

In some languages the instrumental covers the material

from which something is made as in *make a basket with reeds*.

3.5.4 *Allative*

Numerous Australian languages have an allative case suffix expressing *to*; a few have a postposition to express *to* and a few a pre-case suffix. A few score use the dative or the locative and often there are syntactic criteria for distinguishing a *destination* (or *allative*) relation. In Dyirbal, for instance, where *to* is expressed by the same form as purpose, Dixon provides five syntactic criteria for distinguishing two relations. A 'dative relation', for example, but not an allative can be qualified by a relative clause (Dixon 1972:236).

The following example is from the Gurnu dialect of Baagandji (Hercus 1982:70),

(3.20) *dhiga-la* *ngaba* *yabarra-mirl*
return-topic I:pres camp-allative
'I'm going back to camp.'

A few languages have a case separate from the allative for *towards, in the direction of* or *to the vicinity of* e.g. Kalkatungu, Yalarnnga and Gidabal.

3.5.5 *Ablative*

An ablative case or pre-case suffix is found in practically every Australian language that has a case system, and those prefixing languages that express local relations via postpositions usually have a postposition for this function. The basic sense is *motion from* as in the following Djapu example (Morphy 1983:41),

(3.21) *marrtyi* *nganapurr* *dhipu-ngur* *Yirrkala-ngur*
go we here-abl Yirrkala-abl
'We went from Yirrkala.'

With human nouns, Djapu adds the ablative to an oblique stem, the oblique marker being based on the marker for locative and allative with human nouns. In some Western Desert dialects, the ablative is added to a locative stem with names. Compare Ngaanyatjara *wiltya-nguru* 'from the shade' with *Tyurutya-lama-la-nguru* 'from Jerusalem' (Glass and Hackett 1970:87).

Some languages have distinct suffixes for *motion away from* and *motion from a person* or *place of origin* or *from a previous possessor*. In Guugu-Yimidhirr *-nganh* is the ablative (expressing *from* and causal senses) and *:ga* expresses motion from a person etc. As Haviland acutely observes, this relation is the inverse of the dative (whereas

the ablative pairs with the allative) (Haviland 1979:54),

(3.22) *yarraman ngayu bitba-aga maa-ni*
horse I(A) father-from get-past
'I got the horse from [my] father.'

3.5.6 *Causal and Aversive*

A few languages have a case that I refer to as *causal* covering the cause or reason for a resulting situation as in *die from poison, wet from the rain, sick from eating bad meat*, etc. This can be illustrated from Yidin^{y} (Dixon 1980:298),

(3.23) *mudyam dubuurrdyi wunang minya-m*
mother full:up lie meat-caus
'Mother is lying down satiated from meat.'

Yidin^{y} is in fact one of a handful of languages that also has what could be called an *aversive* case covering what is to be avoided as in *keep away from the fire, be on the lookout for snakes* and *be frightened of ghosts* (Dixon 1980:299),

(3.24) *yingu waguudya garrbang bama-yida*
this man hide people-avers
'This man is hiding from the [strange] people.'

Some languages have a single case covering both these functions and others have an aversive but not a causal. Where these functions are not expressed by a causal, an aversive or a causal-aversive, they are expressed most often by the ablative, but sometimes by the locative, dative or instrumental and in Warluwara the causal function is expressed by the genitive. Whether a causal, aversive or causal-aversive exists or not, there are often alternative ways of expressing the cause or source of aversion. In Yankunytjatjara, for instance, the ablative encodes prior cause (dizzy from liquor) and the locative present cause (shivering from the cold). The dative encodes the entity to be avoided (afraid of the man). (Goddard 1983:72, 81, 88).

3.5.7 *Vocative*

In some languages there is a separate form used in addressing someone. In some dialects of Western Desert, for instance, there is an overt suffix marking S and O with proper names which is omitted in address forms thus making an opposition, e.g. *Mary-nya* nominative and accusative as opposed to the root *Mary*. This means recognising a vocative. The vocative is traditionally considered a case since the marker for this function in the classical languages is structurally

part of the case paradigm. However, vocative forms do not enter into syntactic constructions.

3.5.8 *Verbal 'Cases'*

In the Tangkic languages of the Gulf there are forms which resemble local case markers in their position and function. However, they are morphologicaly verbal and in some constructions unambiguously verbal in syntax. Consider first of all (3.25) from Yukulta (Keen 1983:207)

(3.25) *thungalta warla-wulatha pula-ka*
stick mouth-take pull-imp
'Take the stick out of your mouth.'

Here *-wulatha* seems to have the position and function of the ablative and indeed the ablative can be substituted for *-wulatha*. However, now consider (3.26) from the same language where *wula-* is the only verb

(3.26) *warla-wula-ka thungalta*
mouth-take-imp stick
'Take the stick out of your mouth.'

The form *warla-wula-* seems to be a compound or, alternatively, the noun *warla* has been incorporated in the verb. In (3.25) *-tha* is a form that marks transitive verbs. *Wulatha* can appear on its own as a verb, but not all the verbal case forms can be related synchronically with verbs.

3.6 Defective Nouns

Words indicating location (locational qualifiers), usually the translational equivalents of English local prepositions and adverbs of place, can provide a problem with regard to their part-of-speech status, since it is sometimes unclear whether they are nouns or not. Some of these words carry no case inflection (though often they are segmentable into stem plus local case inflection on comparative/historical grounds) and some have local case inflection, but the stems do not occur with any other cases. In some instances an uninflected stem may express the locative relation, but take inflection expressing another local case, e.g. in Pintupi *katu* is 'up' and may serve as a stem to the ablative *ngurru* to yield *katu-ngurru* 'from above'. In some languages the local inflection with these locational words is optional.

It seems that in general all these words can be considered nouns whether they take inflection or not. If they fail to take the full range of cases, then they are simply defective nouns. The best formal indication of their nominal status is the fact that they can be converted to verbs by

derivational suffixes that otherwise occur only with indisputable nouns, e.g. Pintupi *kankarra* 'above' can be verbalised with *-rri* to yield *kankarra-rri* 'be above'. Another factor is that they can represent the complement of a predicator either alone or in parallel with a noun as illustrated in the following Lhanima example,

(3.27) *kawara* *mungkatha* *nhangka-nya* *(nhurra-na)*
dog near sit-past (food-loc)
'A dog sat near (the food).'

Words indicating time (*now, today, in the morning, long ago*) may or may not bear local case inflection and since they normally do not express complements but rather adjuncts giving the time frame for the predication as a whole they have a scope similar to that of certain words usually taken to be particles (e.g. Pitta-Pitta *nharri* 'now'). It seems that some time words are defective nouns and some particles, but there is little exemplification in the literature of the use of formal criteria to establish the distinction.

3.7 Overview of Australian Case Systems

A survey of case markers and adpositions in Aboriginal Australia reveals that almost all languages distinguish the following relations with nouns: absolutive, dative, locative, ablative and instrumental. From the comparative stand point these relations emerge as fundamental, for the others are not so widely distinguished and are variable in their syncretism. The allative, for instance, which is quite widely marked, is sometimes syncretised with the forms expressing dative and sometimes with the locative forms.

A closer inspection of case markers shows that while the dative, locative and instrumental are marked by monosyllabic forms, the other relations are usually marked by longer forms, typically disyllabic ones (the absolutive, of course, does not normally have any marking). This suggests that the dative, locative and instrumental, along with the absolutive, have some historical priority, a suggestion that is strengthened by the near ubiquity, at least among the Pama-Nyungan languages, of cognate forms for these relations and the manifestly composite nature of some of the disyllabic markers for the other relations.

The accusative marker is normally monosyllabic ($-n^{y}a$ or *-nha*) and, if the *-n* that marks object bound pronouns in most of the non-Pama-Nyungan languages is cognate, it has very wide distribution. Its status, however, is not quite the same as that of the dative, locative and instrumental forms since it is practically confined to pronouns (see also section 10.4). The common markers for case relations are as follows:

absolutive:	*0*
dative:	*-ku, -wu*
locative:	*-la, -ngka, -Ta*
instrumental:	*-lu, -ngku, -Tu*
accusative:	*-n^{y}a* or *-nha*
ablative:	various disyllabic forms often involving an increment to *-ngu*.
allative:	if not syncretised with dative or locative it is often marked by an increment to the case markers for these relations.

The compound nature of many allative, ablative and other case markers is not entirely an historical-comparative matter since the derivation of the forms is sometimes transparent and of likely significance in the grammar. Before illustrating this point, I will briefly comment on the common forms listed above.

The dative *-ku*, or plausible cognates of it, are found not only among the Pama-Nyungan languages, but in the non-Pama-Nyungan ones of the north. Often there is a variant *-wu* with *-ku* occurring after consonants (the hardening environment) and *-wu* after vowels (in the softening (intervocalic) environment).

The locative forms *-la* and *-tha, -ta, -rta, -tya* (represented by *-Ta* in the summary above) are related in an obvious way. The forms with the stops occur in the hardening environment (after consonants) and the form with the liquid in the softening environment (after vowels). The point of articulation of the stop variants assimilates to that of the final consonant of the stem. The liquid is likely to be basic since an original **t* would normally soften to a flapped *r*. As for the other forms one finds not only *-ngka*, but sometimes forms with other homorganic clusters such as *-mpa*. These obviously suggest a stem-final nasal that has been lost in exposed position, but retained before a suffix. The nasal naturally gets reanalysed as part of the stem. However, there is a mystery in that *-ngka* is usually found with disyllabic vowel stems, as against longer vowel stems (monosyllabic words cannot occur in most languages). Hale (1976b:416) notes that some Australian languages append a velar nasal to vowel stems and that in Anmatjera this happens only with disyllabic vowel stems. He suggests that such a rule would account for the disyllabic distribution of *-ngka*. If a language introduced a velar nasal with disyllabic vowel stems, this would yield a locative *-ka* (with hardening and assimilation in point of articulation): CVCV*ng-ka*. If later the velar nasal was lost in word-final position, the suffix would acquire the homorganic nasal (CVCV-*ngka*) and this would become the allomorph for disyllabic vowel stems. It is also possible that the relevant velar nasals are etymological but one way or the

other there is an arbitrary association of velar nasals with disyllabic stems. Disyllabic stems with velar nasals occur, incidentally, in Victorian languages so that, for instance, the common root *tyina* appears as *tyinang*.

As can be seen the instrumental has a range of allomorphy like that of the locative and this suggests a proto-form with the same consonant as the locative but with *-u* instead of *-a*, namely **-lu*.

The accusative variants are clearly related. Dixon (1970, see also 1980:153-4) hypothesises that Australian languages once had a single series of laminal consonants (t^y, n^y, l^y) which split in some areas to yield an opposition between lamino-palatals (t^y, n^y, l^y) and lamino-dentals (*th*, *nh*, *lh*). Languages with the two laminal series tend to have the dentals before *a* and *u* and palatals before *i*, this distribution reflecting earlier allophony in the single-laminal ancestor. Under this hypothesis a form like **-N^y* in a single-laminal proto-language will be reflected as *-nha* in a double-laminal language and by the only laminal possibility in a single-laminal language. Laminals in the latter type are conventionally written in the same way as palatals in the double-laminal type. Thus in the present work we find *-n^ya* for the accusative in single-laminal languages.

Now to return to the longer forms representing the other relations. The ablative in at least a few score languages contains a syllable *-ngu*. We find, for instance, *-nguru* in a number of Pama-Nyungan languages of the west coast and forms like *-ngurru*, *-ngurlu*, *-ngulu* and *-ngurni* in the centre of the continent and *-ngumay*, *-ngunti*, etc. in the east. The syllable *-ngu* occurs on its own as a case marker in a great number of languages, but its presence is not always as obvious as that of the markers listed above. It is usually an allomorph of the genitive (or genitive/dative) or the locative. It tends to be restricted, particularly in locative function, to pronouns and other nominals high on the animacy hierarchy. Sometimes it occurs only on certain pronouns.

The identification of this *-ngu* with the *-ngu* of the ablative must remain tentative, but in a few languages the relationship is clear. In Yuwaalaray, for instance, the pronoun paradigm contains genitive *-ngu*, dative *-ngunda* and ablative *-ngundi*. With nouns the dative is *-da* with *-n* stems and the ablative *-di* (<-**dhi*). The pronominal case suffixes are obviously built on the genitive with an element *-n*. Building cases on the genitive is attested elsewhere as is the use of ligative elements (like *-n*) with suffixes in non-final position (see Table 11 for *-ngu* in Gunya).

The identification of the non *-ngu* element in compound looking ablatives is not usually easy, but it is interesting to note that most of the syllables involved look like

instrumental allomorphs. In Yindjibarndi in Western Australia and in Kalkatungu and Yalarnnga in Quensland, the ablative consists of the locative augmented by *-ngu*.

With the allative one finds that either there is syncretism with the dative or locative or an augment to one or the other:

Thargari	- *kurda*	(*-ku*(dat) + *-rda*(loc?))
Djaru	- *dawu*, etc.	(*-da*(loc) + *-wu*(dat))
Walmatjari	- *kartt*	
	- *rlurra*	
	- *rlawu*	(*-rla*(loc) + *-wu*(dat))
Warluwara	- *karlu*	(*-ka*(loc) + *-rlu* (increment common to allative,ablative and causal)
Ngandi	- *git*^{y}	cf. *-gi*(loc)
Pintupi	- *kutu*	(*-ku*(dat) + *-tu*(?))
Kalkatungu	- *kunha* etc.	(*-ku*(dat) + reflex of acc.?)

The remaining cases such as causal/aversive and perlative are regularly marked by disyllabic forms. Since these cases are not distinguished in as many languages, it is more difficult to generalise about their forms. Some perlatives are augmented datives like Djapu *-kurr* (cf. dative *-ku*) and some causal/aversives augmented datives like Alyawarra *-tkittya* (cf. dative -ika), augmented locatives like Pintupi *-ngkamarra* (loc.*-ngka*) and Walmatjari *-rlamarra* (loc. *-rla* plus *-marra* as in Pintupi) or augmented instrumental as in Yalarnnga *-ngkungu* (instr. *-ngku* plus *-ngu* referred to above).

The appropriate generalisation is that the etymologically compound cases are built on the simple cases with which they sometimes show syncretism. Note that causal/aversive is often syncretised with ablative, but causal/aversive forms are not built on the ablative which is itself a compound case.

At one stage then it is likely that Australian languages provided a four-way classification for case relations with absolutive, dative, locative and instrumental. The system was then elaborated with provision being made in most languages for an ablative and in some languages for an allative and various other cases. In systems of this type the absolutive, being unmarked, stands out as the pivotal, central relation. It represents entities that do not act on other entities (compare Kibrik 1979, Wierzbicka 1980, 1981). They may be acted on (patients) or they may simply be the entities whose properties are predicated (neutral). The instrumental, on the other hand, represents entities that do act, initiators, either initiators that impinge directly on a patient (instruments) or wielders of those instruments (agents). In purely semantic terms it is entirely natural that all

initiators be treated alike, but pragmatically there is a problem. Agents differ from instruments in being typically human or at least animate as opposed to inanimate. This in itself makes them good candidates for being taken as central in terms of point of view. But there is the further factor that discourse is more often concerned with successive actions of an agent than successive accidents befalling a patient so that an agent is typically *given* (as opposed to *new*) and therefore a likely choice as topic.

In a system that made provision only for semantic encoding the agent would be treated like an instrument in every way and one could imagine transitive clauses looking rather like passive ones with the agent having a peripheral status. In practice agents are differentiated from instruments by factors such as position and cross-referencing agreement. Agents usually come early in the clause in unmarked transitive constructions and if there is cross-referencing, it is for the agent but not the instrument.

With respect to marking, agents in Australian languages often differ from instruments in lacking marking. Either we find that certain classes of nominals lack the marking for instruments (pronouns usually) or that all agents lack instrumental marking (as in a majority of the prefixing languages). This distribution of nominative agents in transitive clauses I see as entirely due to the pressure of discourse factors. It is significant that where some agents lack marking it is those that are the best candidates for topic or point of view that always lack it. First and second persons are *given* by their status as speech act participants and third person pronouns tend to be given by the discourse or situational context (if they were not given, a more specific nominal would have been used). It is also significant that bound cross-referencing pronouns, almost without exception, operate on a subject/object basis treating A like S. Bound pronouns are especially likely to be sensitive to discourse-pragmatic considerations.

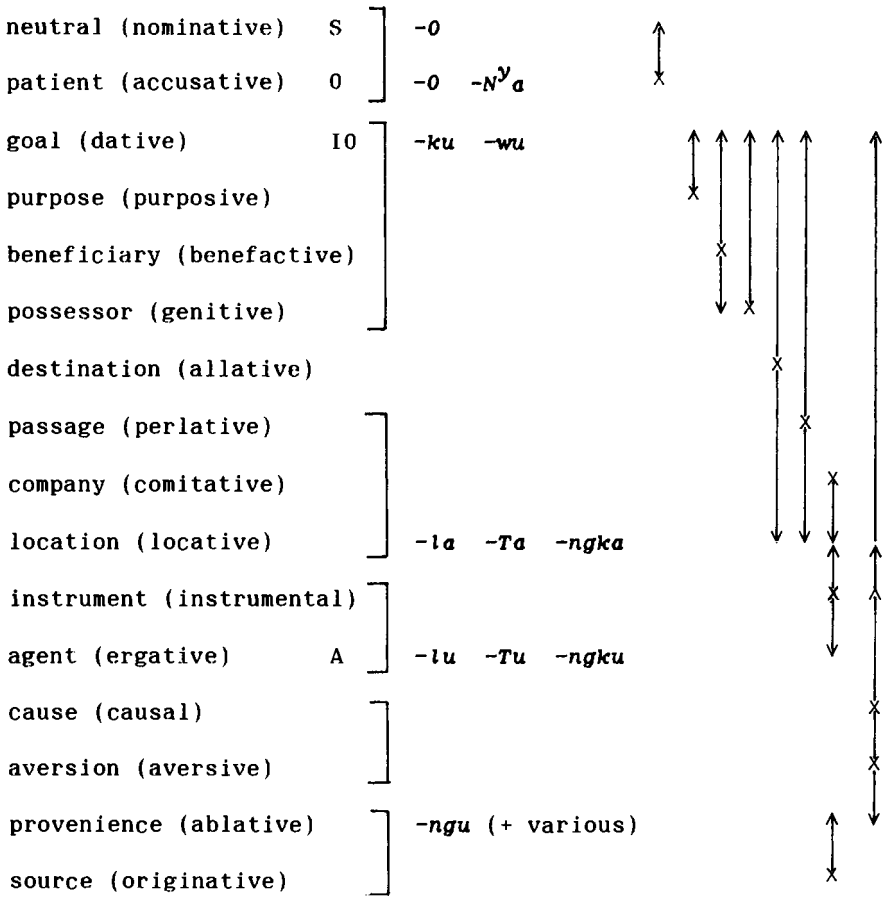
A language can resolve the conflicting demands of semantics and discourse with respect to case marking by simply dropping the ergative/instrumental from pronouns. However, this is likely to give rise to ambiguity where both A and O are unmarked and it is possible that the accusative was introduced with pronouns at least partly as a functional device. The accusative is widely distributed in Australia; it occurs on free pronouns in about 90% of the suffixing languages and, if we count bound pronouns, it occurs in practically every language in the continent. This would seem to argue for its inclusion in the list of fundamental cases, but against this it should be noted it occurs almost exclusively with pronouns. This means that the absolutive is not completely obscured. The effect of the introduction of an accusative is to demarcate a relation with the central meaning

of *affected patient* (O) from one with the central meaning of *neutral* (*theme* in some frameworks) (S). However, while a common form for S and O remains, the absolutive still stands as the relation signifying entities that do not act on others.

Table 12 presents an interpretation of case syncretisms. The labels at the left stand for roles plus associated cases and grammatical relations. Where a case has a common marker this is shown in the middle column. It should be noted that only *-ku/-wu* is found in every area of the continent. The other forms are mainly confined to the suffixing languages and the prefixing languages of the eastern part of the Top End. The brackets group the syncretisms of highest frequency and the arrows show the direction of a greater range of syncretisms. The directions are not completely arbitrary. If, for instance, one reversed the arrow running from destination/allative to goal/dative, then one would need to show that this arrow did not feed the arrow running from allative to location for dative and locative are not commonly syncretised. The diagram has been arranged to minimise feeding. However, it must be admitted that the table is to some extent a subjective impression largely because of arbitrariness in deciding what was a common enough syncretism for inclusion. There is also some arbitrariness in the inclusion of some functions and not others. In general, functions that are practically always represented by pre-case suffixes have been excluded.

Syncretisms that I have attributed to discourse or phonological provenance have not been included. Thus the syncretism of A and locative has been omitted. This occurs in unmarked constructions only when instrumental is also syncretised and where there is an obvious phonological factor involved (vowel loss, vowel reduction or vowel harmony). The use of the nominative for A, which I attribute to discourse pressure, has also been excluded. Note that functions in the table are ordered so as to minimise the length of the arrows. Under this arrangement the markedness of the S/A syncretism would be reflected by the length of the arrow from A to S.

Table 12: Case Syncretisms



Finally I would like to point out that grammatical relations are distinguished by up to three separate subsystems:

(a) case marking patterns in various subclasses of nominal (mainly semantic subclasses)
(b) cross-referencing
(c) class marking

A comparison of all the subsystems that are employed reveals the grammatical relations, but one must not lose sight of the fact that the patterns of neutralisation and opposition within the subsystems are anything but random. All formal patterns are theoretically significant and in practice almost always of obvious significance. The use of a common form for marking A and instrumental is a case in point.

NOTES

1. I use the term ***grammatical relation*** for any morpho-syntactically determinable relation borne by a dependent to its head not just those relations often expressed by cases.

2. The locative of Latin scarcely has a distinct form of its own. However, it can be abstracted from the case markers by a consideration of the different cases with which it is syncretised in different paradigms: the genitive, dative, and ablative.

3. The term ***indirect object*** has been used to describe quite different entities by different grammarians at different times. Consider the following pair of sentences:

(a) John gave a book to Fred.

(b) John gave Fred a book

Some linguists, including followers of Relational Grammar, would use the term indirect object for ***Fred*** in (a) but not in (b), and for analogous entities in other languages e.g. Latin or German datives in 'giving' sentences. Others would use the term for ***Fred*** in both (a) and (b). Since ***Fred*** has different grammatical properties in the two sentences, the identification must be semantic, but note that no one extends the term to ***Fred*** in ***Fred was given a book by John***. Others again would use the term ***indirect object*** only for ***Fred*** in (b). Those who do this normally take the second object in sentences like (b) to be the direct object, but the grammatical identification of the second object with the sole object of a transitive verb is dubious. The first object usually identifies better with the sole object. In English the various syntactic criteria that can be brought to bear to resolve the problem do not give a clear result. In languages with an object set of cross-referencing forms, but not other oblique set, the object set almost invariably cross-references the recipient in sentences like (b). This suggests the recipient is in fact the direct object. In Relational Grammar the second (patient) object is considered a direct object chômeur, i.e. as a kind of ex-direct object or demoted direct object. Where the recipient in sentences like (a) does not have the same marking as the non-subject complement of an intransitive verb, the former being in the allative and the latter in the dative for instance, my preference is to reserve the term ***indirect object*** for the complement of intransitives.

4. In a sentence translating ***I will chop the wood for the man*** the genitive/dative marker ***-ku*** appears on the word for man and it is not immediately clear whether the suffix is a pre-case one or part of the case system proper. However, if the anti-passive construction is used, which involves putting the word for ***wood*** in the dative (see section 4.3.2), the word for ***man*** takes an extra dative suggesting the first ***-ku*** is in fact a pre-case suffix.

nga-thu inytyi-mi utyan-0 kalpin-ku-0
I-erg chop-fut wood-nom man-gen-nom
'I will chop (the) wood for the man.'

ngai inytyi-yi-mi utyan-ku kalpin-kuwa-ku
I chop-ap-fut wood-dat man-gen-dat
'I will chop the man some wood.'

The first sentence could equally well be translated 'I will cut the man's wood'.

5. In Pintupi one finds that a comparison of the case system and the cross-referencing singles out the recipient of the verb 'to give'. Pintupi has a dative case covering beneficiary, possessor, etc. and a case called *accessory* by the Hansens. This covers largely locative senses with animates, i.e., accompaniment and the like. Both these cases are cross-referenced, the accessory by the same series of forms as 0. The recipient of 'give' is distinguished by being expressed in the dative case but cross-referenced by the accessory/0 forms,

	case	cross-ref
beneficiary	dative	dative
recipient		
accompaniment	accessory	accessory/0

6. Only the construction with an oblique recipient is likely to be missed. Most unelicited examples involve pronominal recipients in the double object construction. 'Unelicited" covers textual examples and examples substituted by speakers for requested translations.

Chapter Four

MINORITY CONSTRUCTIONS

4.1 Introduction

This chapter describes minority constructions, constructions that are restricted in their distribution. Most of these constructions are formally derived; almost all are in some sense special and can be paired with a corresponding more basic construction, and a few are restricted in the verbs they occur with.

4.2 Noun Incorporation

Some prefixing languages allow a noun to be incorporated into the verb between the pronominal prefixes and the verb root. This noun usually corresponds to the O of a parallel sentence lacking the incorporation, but it may correspond to S and occasionally to A or to a non-core complement.

The following examples are from Gunwinggu (Kunwinjku). In this language the incorporated construction is possible when the patient belongs to one of the two neuter classes and in fact seems to be preferred. There are four classes based pretty much on natural gender: a masculine class, which includes a few inanimates, a feminine class and two neuter classes. One noun from the non-neuter classes can be incorporated and significantly it means 'baby' (Carroll 1976:77).

(4.1) *bi - yaw - wukume - ng*
she:it-baby-swallow-past
'She swallowed the baby.'

Interestingly the pronominal prefix here *bi-* is the one signifying a third person singular A acting on a third person singular O. It is not zero, the third person S form, as one might expect if the effect of incorporation was intransitivisation.

The following example contains an incorporated noun corresponding to S.

(4.2)a. ***nga-karre-babang***
I-leg-be:sore
'My leg is sore.'

With three place verbs the incorporated nominal corresponds to the patient object, the recipient being represented by the 0 pronoun. (4.3a) illustrates a construction without incorporation and (4.3b) illustrates one with. The prefix ***kun-*** in (4.3a) is the class prefix for one of the inanimate classes. Class prefixes do not appear with incorporated nouns.

(4.3)a. ***ngan-bukka-ng*** ***kun-karremok***
he:me-show-past KUN-sore:leg
'He showed me his sore leg.'

b. ***ngan-karremok-bukka-ng***

Note that ***ngan*** is the pronominal prefix for third singular A (represented by zero) acting on first person singular 0 ***(nga-n)***. Gunwinggu is following the general principle of using 0 forms to mark or cross-reference a recipient object in preference to a patient one.

In some instances two nouns are incorporated corresponding to a noun phrase in a patient object relation (Carroll 1976:120),

(4.4) ***bindi-denge-kimuk-wo-ng***
they:them-foot-big-give-past
'They gave them big feet.'

bindi is the form for third plural A ***(-di)*** acting on third plural 0 ***(bi-n)***.

Gunwinggu also has a few marginal examples of A being incorporated.

Languages that employ incorporation sometimes incorporate forms peculiar to that construction, these forms being in suppletive alternation with the forms used outside the verb. This happens in Gunwinggu with respect to ***water***. It is represented by ***bo-*** in the verb and by ***kukku*** when it appears as a dependent outside the verb. Usually only a restricted set of items can be incorporated and body-part nouns are the most popular.

Other languages exhibiting noun incorporation include Tiwi, Rembarnga, Enindhilyagwa and Nunggubuyu. Heath (1984: 463ff) notes that in Nunggubuyu a noun may be represented both inside the verb and outside it in the same clause, and that there are some lexicalised examples of 0 incorporation which are intransitive such as ***wu-na*** 'make a large camp fire' which contains the verb ***na*** 'to burn' and a reduced form of ***wurg*** 'large fire' (ibid.:478).

4.3 Detransitivised Constructions

4.3.1 *Reflexive-reciprocal*

It is common in Australian languages for derived intransitive verbs to express the notions of reflexive and reciprocal. Usually the same marker covers both notions. If the subject is plural, the interpretation that more naturally suggests itself is reciprocal, but it could be reflexive or vague between the two possibilities. In some languages there is a particle that can be used to specify reciprocity. The following example is from Yalarnnga. Note that the intransitive derivation affects A but not the identically marked instrumental.

(4.5)a. *mirnmirri-yu wala-mu wamari thukani-yu*
woman-erg(A) hit-past snake yamstick-erg(inst)
'The woman hit the snake with a yamstick.'

b. *mirnmirri wala-nyama-mu thukani-yu*
woman hit-re-past yamstick-erg(inst)
'The woman hit herself with the yamstick (as in mourning).'

A few languages do not employ this derived intransitive construction, but use a transitive construction with a reflexive pronoun. In Warluwara, for instance, the normal transitive construction is used with a pronoun object bearing a suffix to indicate that it is to be interpreted as reflexive/reciprocal (Breen 1971:176).

(4.6) *warrawurla-wiya-ku wula-pa tanma-rna*
dog-dual-ergative they-re bite-past
'The two dogs bit one another.'

4.3.2 *Anti-passive*

A dozen or so Australian languages have a two-place derived intransitive construction with S corresponding to the A of the transitive construction and an oblique case, most often the dative, marking the complement that corresponds to O. This construction has become known as the *anti-passive* following Silverstein 1976.[1]

(4.7)

transitive construction	A	O
anti-passive construction	S	dative

The anti-passive derivation is often marked by a form homophonous with the reflexive-reciprocal marker. The following example is from Pitta-Pitta where the marker is *-li*, a form that can appear as a reflexive marker.

(4.8)a. *nga-thu thatyi-ya i-nha-ka kathi-nha*
I-erg eat-pres it-acc-here meat-acc
'I am eating the meat.'

b. *ngantya thatyi-li-ya kathi-ku*
I:nom eat-ap-pres meat-dat
'I want to have a feed of meat.'

The effect of antipassivisation is to produce a clause that has lower semantic transitivity (in the sense of Hopper and Thompson 1980). Verbs that are normally transitive are given the same construction as two-place intransitives with meanings such as 'look for' or 'like' (see section 3.5.1). The precise effect varies from language to language. In Kalkatungu the anti-passive tends to signal ongoing or uncompleted activity *(He is making a boomerang)* or characteristic activity *(He makes boomerangs)*. It is also used where the emphasis is on the activity indulged in as opposed to the effect on the patient. This is most easily seen with verbs for cooking and eating. In English we simply use them intransitively *(He is cooking. He is eating)*;[2] in Kalkatungu a patient is expressed (*maa* (vegetable) food is the unmarked alternative), but the anti-passive is used since there is normally no motivation to emphasise what is being done to the food. Where this motivation exists, the transitive construction is in fact used, for instance, in something like *What did you do with that fish I gave you? I ate it.* (4.9a) illustrates the normal transitive construction (normal but unusual with the verbs for cooking and eating) and (4.9b) the anti-passive.

(4.9)a. *nhaka nyin-ti ari-nha?*
what you-erg eat-past
'What did you eat?'
mpuu nhaa nga-thu ari-nha
rotten:meat that I-erg eat-past
'I ate the rotten meat.'

b. *nhaka-yan-ati-minha-n*[3] *nyini?*
what-having-intr-imperf-you you
'what are you doing?'
maa-tyi ngai ari-li
food-dat I eat-ap
'I'm eating (food).'

In Pitta-Pitta the anti-passive is used to indicate what we could call desiderative aspect as illustrated in (4.8b) as well as continuing activity and characteristic activity. There are examples where the patient is omitted (Roth 1897: 23),

(4.10)a. *thatyi-li-ya nganytya* (eat) I'm eating
b. *thima-li-ya nganytya* (drink) I'm drinking
c. *pipa-li-ya nganytya* (see) I'm on the look out

Pitta-Pitta is of some typological interest in that it employs two different patterns of core case marking, one in the non-future and the other in the future. In the non-future Pitta-Pitta marks a three-way nominative-ergative-accusative distinction on all nominals (compare Wangkumara (2.3), (2.4), (2.5)). In the future all subjects (and their complements) are marked alike and all objects (and their complements) are marked like indirect objects. This means that the pattern of marking in the future is similar to that of middle and anti-passive clauses, the only difference being the presence of a subject marker *-ngu*. The patterns are summarised in Table 13 and illustrative sentences (based on Roth 1897) appear in (4.11) to (4.14). The instrumental has been included since it too shows a non-future/future distinction and the genitive/purposive has been included partly to show that it is distinct from the dative and partly to show how the object marking is distributed.

Table 13: Pitta-Pitta Case Marking

	S	A	O(pat)	O(recip)	IO	inst	gen/purp
NONFUTURE							
intransitive (incl.middle and a-p)	*-0*				*-ku*	*-lu*	*-nga*
transitive		*-lu*	*-nha*	*-nha*		*-lu*	*-nga*
FUTURE							
intransitive	*-ngu*				*-ku*	*-ngu*	*-nga*
transitive		*-ngu*	*-ku*	*-ku*		*-ngu*	*-nga*

The future subject marker *-ngu* derives from an allomorph of the Pama-Nyungan ergative/instrumental *-ngku*. Compare the genitive/purposive *-nga* which derives from the corresponding locative allomorph *-ngka* with a semantic shift that is attested in other languages.

(4.11) *ngamari karnta-ya ngartu-nga kankari-marru*
mother go-pres nardoo-purp knife-having
'Mother's going for(to get) nardoo with a knife.

(4.12) *ngamari-lu ngunytyi-ka ngali-nha*
mother-erg give-past we:2-acc
mangarni-marru-nga-nha kathi-nha
bone-having-gen-acc meat-acc
'Mother gave us the doctor's meat.'
(doctor is literally 'death-bone having (one)')

(4.13) *ngamari-ngu karnta-0 ngartu-nga*
mother-fut:nom go-fut nardoo-purp
kankari-marru-ngu
knife-having-fut:nom
'Mother will go for(to get) nardoo with a knife.

(4.14) *ngamari-ngu ngunytyi-0 ngali-ku*
mother-fut:nom give-fut we:2-fut:acc
mangarni-marru-nga-ku kathi-ku
bone-having-gen-fut:acc meat-fut:acc
'Mother will give us the doctor's meat.'

In the closely related Wangka-Yutjuru language the same nominative-accusative pattern of marking is found in the future. However, while the future nominative is *-ngu* the accusative is the same as in the non-future namely *-nha*.

A number of prefixing languages use a suffix to derive one-place intransitives from transitives with S corresponding to A. In Nunggubuyu, for instance, the reflexivising suffix *-i* derives forms such as *wurami* 'to go round' from *wurama* 'go round it' though with most verbs it derives an agentless passive as described in section 4.3.5 below (Heath 1984:390). These derivations are parallel with the Pitta-Pitta ones cited in (4.10), but there seems not to be any provision for expressing a demoted 0 as in (4.8b).

In Garawa the anti-passive is used in negative clauses (Furby and Furby 1977:36-7) and in Yukulta (Keen 1983, esp. 234ff) the anti-passive is used in negative non-past clauses and desiderative clauses. This is in keeping with the general tendency for formal intransitivity to express reduced semantic transitivity. However, Yukulta is unusual in using the anti-passive where a third person acts on a first or second person or where a second or third person acts on a first non-singular. Hierarchical rules involving first, second and third person are very common in Australia (see section 6.6), but this manifestation is unusual, perhaps unique.

Languages exhibiting a fully productive anti-passive construction are concentrated in north-west Queensland (Yukulta, Garawa, Kalkatungu, Yalarnnga and Pitta-Pitta) and north-east Queensland (Dyirbal, Yidin^{y}, Warungu, Nyawaygi, and Tyaapukay). The construction is also found in the Torres Strait (Kalaw Lagaw Ya) and south-east Queensland (Bandjalang).

A wider range of languages allows a lexically restricted

anti-passive, usually with only a handful of verbs. An example from Diyari appears in section 4.3.5 below.

As noted in chapter two Djapu parallels the anti-passive derivation by allowing transitive verbs to appear in an intransitive construction (S nominative, patient dative) to indicate that the action has not (yet) impinged on the patient (F. Morphy 1983:38). Wargamay (Dixon 1981a, b) has reanalysed its anti-passive derivational marker in such a way that the effect of the anti-passive is captured by switching a transitive verb to the intransitive conjugation. Wargamay is a neighbour of the north-east Queensland anti-passive languages listed above.

In all these languages the demoted patient appears in the dative although Wargamay, Nyawaygi and Dyirbal allow the ergative/instrumental as an alternative, Yidin[y] the locative as a preferred alternative for inanimates, Kalaw Lagaw Ya only the ergative/instrumental[4] and Bandjalang only the accusative.

4.3.3 *Cognate Object Constructions*

Quite a few Australian languages have a distinct construction for a few verbs with meanings such as ***speak (a language), wear (clothing), dance a corroboree.*** Austin 1982 points out that in each instance there is a highly specific 'cognate' object that can be understood as closely connected with the meaning of the verb. In a language with ergative case the cognate object construction stands out in that we have a two-place verb with no ergative for the subject yet the normal marking for O. In some language types a cognate object construction would not show up in the morphology. In some prefixing languages there is no marking for core relations and the intransitive pronominal prefixes are the same as the ones used with a transitive verb when O is third person singular (note that the cognate object is normally third person singular).

The following example is from Diyari. It is a particularly useful one since it contains an accusative marker. Most of the cognate objects in the literature are unmarked and it is difficult to tell whether they are nominative or marked by a zero variant of the accusative (remember positive accusative marking is often restricted to pronouns or at least to humans). (4.15) has been included to illustrate the normal transitive construction (Austin 1982:40).

(4.15) ***nga-thu nhi-nha-ya nganthi-0 thayi-yi***
I-erg this-acc-here meat-acc eat-pres
'I eat this meat.'

(4.16) *nga-nhi* *nhi-nha-ya* *yawada-0* *yatha-yi*
I-nom this-acc-here language-acc speak-pres
'I speak this language'.

It is not certain what the appropriate assignment of grammatical relations is here or whether they are determinable. Nganhi in (4.16) is presumably subject, but it may not be possible to tell whether it is A or S. *Yawada* could be 0 or it could be assigned a minor grammatical relation, 'cognate object complement'.

In some languages the cognate object construction can undergo further (?) detransitivisation with the cognate object being demoted to the dative. This happens in Bayungu non-finite participial clauses, e.g. *nyinayi piyal-ku wangka-rra* (sit story-dat tell-participle) 'sit telling a story'. (Austin 1982: 42-3).

In Bandjalang there are cognate object type verbs that occur with an ergative subject and no other complement as in (4.17).

(4.17) *mali-yu* *dyaadyam-bu* *dyaluba-ni*
that-erg child-erg urinate-past
'That child peed.'

The other meanings involved are *defecate, yawn, dance, put on (clothing), sing, make (a noise)* and *smoke a cigarette* (Crowley 1978:107). Interestingly these verbs can undergo anti-passive derivation resulting in structures with a nominative subject and *-li* added to the verb stem.

In Yukulta there is an anti-passive derivation and another detransitivised construction similar to those described as cognate object constructions. The latter is used to indicate competence as opposed to realisation. Note that in (4.18a) we have a normal transitive construction with an ergatively marked A, a nominative 0 and a clitic complex marking transitivity, tense, and the person and number of the subject and object. In (4.18b) both the subject and the other complement are in the nominative and there is no clitic complex at all.

(4.18)a. *kuluwarn-ki=karri* *mirralatha* *kathara-0*
bird-erg=trans:pres:it:it make nest-nom
'The rainbird is making a nest.'

b. *kuluwarn-ta* *mirralatha* *kathara-0*
bird-nom make nest-nom
'Rainbirds make nests.'

The overt nominative on *kuluwarn* is a phonologically motivated feature of languages of the Tangkic group to which Yukulta belongs.

4.3.4 *Ergative-dative Constructions*

In section 2.5. it was noted that there is often a small class of two-place verbs with a nominative S and a complement usually in the dative. These verbs have in common that they do not refer to activities impinging on a patient and in some languages some verbs can appear as transitives or as two-place intransitives with an appropriate semantic difference. As noted in the previous section some languages have a de-transitivising derivation to express incomplete impingement on a patient.

In Djaru and a few surrounding languages including Warlpiri and Gurindji, there are verbs with an ergative subject and a dative complement corresponding to the two-place intransitives of other languages. In Djaru this construction is normal with verbs for *stalk, search, look around for* and *await*. With perception verbs it is an alternative to the ergative-nominative transitive construction and indicates a sense of 'try to' (Tsunoda 1981a:149ff).

(4.19)a. *mawun-du nga-0-0 dyambagina bura nyang-an*
man-erg aux-he-it child hear-pres
'A man hears a child.'

b. *mawun-du nga-0-la dyambagina-wu bura nyang-an*
man-erg aux-he-it:IO child-dat hear-pres
'A man tries to listen to a child.'

The grammatical relations are not clear. The non-subject complement is marked and cross-referenced as an indirect object leading one to expect an intransitive construction, but the subject is in the ergative. The subject cross-referencing does not distinguish S from A (the forms happen to be zero in (4.19)). If a nominal with the role of beneficiary is added, it too can be cross-referenced, by a form of the indirect object series. The following example has been selected since it involves third singular where there is a bound form specifically for indirect object (0 and IO forms are syncretised elsewhere). However, there is a complication in that a sequence of *-la-la* is eschewed in favour of *-lanyanda, -nyanda* being borrowed from the locative set (avoiding a sequence of identical elements is a common feature of clitic systems).

(4.20) *nga-rna-la-nyanda muwu wung-an dyadyi-wu*
aux-I-him-him search-pres roo-dat
mawun-gu
man-dat
'I look for the kangaroo for the man.'

In Warlpiri the ergative-dative construction can be used with a wider range of transitive verbs to indicate that an activity has not been successfully accomplished e.g. 'tried to spear but missed' (Hale 1973:336).

4.3.5 *Passive*

As noted in section 2.4 there are two groups of languages in Australia with a nominative/accusative case opposition. One group is found in north-west Western Australia and the other in the Gulf of Carpentaria. Interestingly the passive has been reported from both areas. The following example is from the Western Australian language, Yindjibarndi (Wordick 1982:170ff).

(4.21)a. *Ngaarta thuwayi-na pattyarri-u*
man spear-past euro-acc
'The man speared the euro.'

b. *Ngaarta-lu thuwayi-nguli-nha pattyarri*[δ]
man-inst spear-pass-past euro
'The euro got speared by the man.'

The passive is also found in the neighbouring accusative languages of the Ngayarda subgroup: Ngarluma, Panyjima and Martuthunira (Dench 1982). In each language the verb is marked by a pre-tense suffix homophonous with or related to the inchoative suffix used to derive intransitive verbs from nouns (cf. section 1.5). The agent, if expressed, is marked by *-lu/-ngku* (the Pama-Nyungan ergative-instrumental) and by *-la/-ngka* in Ngarluma (where the Pama-Nyungan locative *-la/-ngka* and ergative-instrumental have fallen together with the vowel *a*). In Martuthunira *-lu/-ngku* serves only to mark the agent of the passive, but in Yindjibarndi this form marks some instruments, though the 'having' construction (illustrated in (3.18)) is more usual. In Panyjima the 'having' construction is normally used for instruments and *-lu/-ngku* used in the active only for body parts expressing instruments (compare (5.31)).

Dench (op. cit.) notes that the sole function of this productive derivational passive is to promote O to subject to serve certain inter-clause constraints. However, the passive construction also occurs with two inflections of the tense series, the perfective passive and the apprehensional 'might suffer" passive. These can be used independently of other clauses for their inherent meaning as well as discourse-pragmatic effect. The perfective passive in Panyjima is illustrated in (4.22) (Dench op.cit.: 49).

(4.22) *panha yalha ngayi-rnaanu wirrpi-ngku*
that shed throw-perf:pass wind-inst
'That bough-shed has been wrecked by the wind.'

All the accusative languages of the Ngayarda sub-group have a common set of markers for direct and indirect object (involving some reflexes of the common Australian dative *-ku*) and it is thought that they developed from ergative languages by generalising what was originally a minority alternative pattern, namely the middle pattern with nominative subject and dative indirect object. The accusative languages of the Gulf, namely Lardil (Mornington Island), Kayardild (Bentinck Island) and Yanggaal (Forsyth Island) are also thought to have developed from ergative languages (see also chapter ten). In Lardil there is a fully productive passive with the verb marked by a pre-tense derivational suffix identifiable with the reflexive. The demoted agent can be expressed via the genitive. In Kayardild the reflexive marker is used to derive passives (it also has a few other functions with certain stems). These tend to be used in adversative sense. The demoted A can appear in a variety of cases, the choice depending partly on its animacy: ablative, oblique, locative or intransitive-allative (cf. Latin dative of agent) (Evans 1985:223ff, 287ff).[6] The choice of case is presumably significant in much the same way as the selection of a preposition was in Old and Middle English (*of, through, mid, from, by,* etc.) In Modern English the locative *by* has become the only possibility for the productive syntactic passive (this *by* is historically the locative *by*) though other possibilities remain with the restricted lexical passive: *surprised at, plagued with,* etc.

In some languages a derived agentless passive is possible with certain stems. The suffix involved is normally one used for reflexive and/or reciprocal and it usually has anti-passive functions with other verb stems. One example was mentioned in section 4.3.2 above. In Nunggubuyu the reflexive suffix *-i*, when used with *dhidha* 'to shut off', produces *dhidhi* 'to be shut off'. This agentless passive type derivation is common, though as noted in section 4.3.2 above, the same suffix produces anti-passive type derivations with a few stems.

In Diyari the suffix *-thadi* has a number of different effects with different verbs:

(a) reflexive.

(b) anti-passive with verbs that often take a dative complement in other languages meaning 'find/discover', 'await', 'chase', 'search for', 'take away from', 'ask repeatedly for', 'look out for'.

(c) semi-transitive cognate object construction with verbs for 'eat', 'drink', 'cook', 'try' and 'sing'. A non-derived example of the relevant construction appears in (4.16) above. The subject is nominative (not ergative) and the other complement accusative.

(d) passive with a number of 'ordinary transitive' verbs with meanings such as 'split', 'bury', 'grasp' and 'throw'.

(e) durative aspect with reduplicated stems.

Austin (1981a:72ff, 155) describes *-thadi* as deriving from roots of group (d) verbs with a passive process meaning. An instigator may be expressed in the locative or ergative-instrumental.

(4.23)a. ***wathara-li nhi-nha marna-0 ngandawalka-rna warra-yi***
wind-erg it-acc door-acc close-participle aux-pres
'The wind closed the door.'

b. ***nhawu marna ngandawalka-thadi-rna wara-yi wathara-nhi***
it:nom door:nom close-pass-participle aux-pres wind-loc
'The door got closed in the wind.'

I do not think these passives are parallel with English syntactic passives with the agent in a *by* phrase where in the judgement of most the passive has the same meaning as the active, pragmatics apart. Rather I think they are parallel with lexical passives as in *I was disappointed with/at the result* where the preposition has significance beyond just marking a demoted subject (cf. *I was disappointed by the result* and remarks above).

A number of Australian languages are like Diyari in allowing a restricted agentless passive, 'agentless' in the sense of not providing a slot for the demoted agent that is free from some meaning beyond the agentive meaning associated with A. These restricted passives occur in Diyari's northern neighbours Yandruwandha and Yawarawarga (Austin op. cit.:76 quoting Breen), and in some languages of north-east Queensland: Yir-Yoront, Gugu-Yalanji and Tyaapukay.

Ngiyambaa allows a number of transitive verbs to move from the transitive conjugation to the intransitive one with an O = S correspondence (Donaldson 1980:168). This effectively produces an agentless passive. A large number of languages allow this with a small number of verbs especially verbs for 'burn'.

It should also be noted that many languages can parallel

sentences like the Diyari pair given above in (4.23) by using different verbs and putting the non-subject initiator in the causal, locative or instrumental. Thus we can get pairs analogous to English *The wind blows the grass. The grass blows/waves in the wind.*

In Nyigina, a language in which there is ergative marking for A and cross-referencing for subject prefixed to the verb, the effect of an active/passive alternation can be achieved with some verbs. The patient appears in the nominative and is cross-referenced from a set of prefixes used primarily for one-place verbs rather than from the set used for the subject of two-place verbs. The non-patient appears in the ergative (Stokes 1982:142). Compare (4.24) and (4.25).

(4.24) *wa-rra-marra-ngayu dyunggu-ni*
it-irr-burn-me fire-erg
'The fire might burn me.'

(4.25) *nga-rra-marra ngayu dyunggu-ni*
I-irr-burn I:nom fire-erg
'I might get burned by the fire.'

The ergative phrase is clearly peripheral in (4.25) and one might be tempted to interpret it as instrumental. However, in this language the oblique ergative is in paradigmatic opposition with an instrumental (and locative, ablative, causal, animate source, inanimate source and dative). This suggests that the choice between the two constructions is primarily pragmatic as with the English passive, but the option seems to be available only with a score or so of verbs.

4.4 Object Creating Constructions

Some languages have marked constructions featuring an O that is not present with the unmarked verb or with an O that corresponds to a non-core relation with the unmarked verb. Where a nominal in a non-core relation is re-expressed as O with a derived verb, I will describe it as being ***advanced*** to O, ***advanced*** in the sense of being promoted from a peripheral relation to a core one. The marking in many of these constructions is homophonous with the causative and of course causativisation is an object creating derivation so I will begin by describing this process.

4.4.1 *Causatives*

In Australia causativisation is, with only marginal exceptions, restricted to intransitive verbs. The marking is usually in the form of a derivational suffix on the verb. However, some languages that use auxiliary verbs capture the

effect of morphological causativisation by the choice of an appropriate auxiliary (illustrated in section 7.2).

The following example from Yidin^{y} (Dixon 1977:312) consists of a typical intransitive/transitive pair with the S of the intransitive corresponding to the O of the causativised verb.

(4.26)a. *ngayu warnggi:n^{y}*
I(S) turn:past
'I turned around.'

b. *nganyan^{y} gudyununggu warnggingalnyu*
me:acc(O) wind:erg turn:cause:past
'The wind spun me around.'

The causative marker is *-nga-l*, *l* being the conjugation marker of the causative.

In Yidin^{y} and in many other languages the causative marker also derives verbs in which A rather than O corresponds to S. The question that naturally arises is what determines whether a given intransitive verb undergoes standard causativisation (S=O) or a derivation in which S corresponds to A. It seems to me that this is a lexical matter though one can see that semantic and pragmatic factors have influenced the choice (compare the remarks in section 4.3.5 above regarding the passive and anti-passive uses of the reflexive-reciprocal). Where the intransitive verb has a patient subject (*be drunk, all, die, be warm*, etc.), one normally finds standard (S=O) causative formation; on the other hand where the intransitive verb has an agent subject, one tends to find S=A formations (*climb, laugh, urinate, cry*, etc.). However, one can find the same derivation used to form both a transitive verb with an S=O correspondence and one with an S=A correspondence. In Gunggari, for instance, *wula-ma* (die-cause) means 'put out (the fire)' while an homophonous *wula-ma* means 'die on' as in 'He died on me and left me destitute' (Holmer 1983:186-7).

With S=A derivations there is advancement of a non-core complement. (4.27) illustrates an S=A derivationally related pair of verbs in Diyari (Austin 1981a:158).

(4.27)a. *thalara kurda-yi ngali-ngu*
rain rain-pres us-loc
'It is raining on us.'

b. *thalara-li ngali-nha kurda-lka-yi*
rain-erg us-acc(O) rain-trans-pres
'It is pouring on us.'

Here we find that what is expressed as a locative complement with the intransitive verb is expressed as O with the

transitive one. (4.27) indicates that *ngali* was soaked by a substantial downpour and it is appropriate that *ngali* be expressed as O since the typical reference of O and hence the meaning of O is affected patient (compare remarks in section 2.5).

The complement that appears as O with the derived transitive verb may have the role of goal, beneficiary, location, company, destination, aversion or cause. With goal and beneficiary a number of languages seem to allow advancement generally, but the advancement of location and company is not so common and it tends to be lexically restricted. The advancement of destination, aversion and cause is reported from only a few languages. These generalisations are couched in terms of roles since the formal status of the relevant complement is sometimes difficult to establish. In some instances it is clearly expressible via a pre-case suffix, but in other instances it is not clear whether the intransitive verb can be used at all. The range of semantic and morphosyntactic possibilities involved is illustrated in the following subsections.

In a handful of languages a causative affix can be used with a transitive verb to mark the advancement of a complement to O. The advancee displaces the 'old' O to another case, usually the dative. The advancement involves the roles of location and instrument.

4.4.2 *Locative Advancement*

The following examples from Kalkatungu illustrate the advancement of a locative with the advancement marked by a form identifiable with the causative (but glossed as advan(cement) marker). With the intransitive clause the effect of advancement is transitivisation. With the transitive clause the advancee displaces the patient from O to the dative.

(4.28)a. *thuku nuu-mi kulapuru-thi*
dog lie-fut blanket-loc
'The dog will lie on the blanket.'

b. *thuku-yu nu-nti-mi kulapuru*
dog-erg lie-advan-fut blanket
'The dog will lie on the blanket.'

(4.29)a. *nga-thu kati-mi kupangurru tharntu-pia*
I-erg bury-fut old:man(O) hole-loc
'I will bury the old man in a hole.'

b. *nga-thu kati-nti-mi tharntu kupangurru-u*
I-erg bury-advan-fut hole old:man-dat
'I will bury the old man in a hole.'

(4.28a,b) is parallel with the Diyari pair (4.27a,b).

The effect of advancing a locative to O is to suggest that what is objectively a location is affected like a patient. In (4.28b) the dog could be said to affect the blanket by lying on it. Gavan Breen pointed out to me that the speaker who produced this example would not accept the substitution of *muu* 'ground' for *kulapuru* 'blanket', perhaps because the ground cannot easily be seen as affected by a resting canine.

In Kalkatungu the causative *-ntt* when added to *yuu* 'to climb on' produces *yuuntt* 'to ride'. A person riding a horse or a bike is located on it, but also controls and affects it.

Locative advancement in Kalkatungu and in the neighbouring Yalarnnga also plays a part in inter-clause syntax. This is described in section 8.3.2.

In Yidin^{y} the complement of verbs of speaking as in *speak in language (or style) X* can be advanced to O. These complements are in the locative, but normal locatives (referring to location) cannot be advanced.

4.4.3 *Instrumental Advancement*

In a few languages an instrument argument in a transitive clause may be advanced to O with the old O being demoted. Yidin^{y} is unusual in the way it handles the required demotion. It employs the antipassive to demote O to make way for the new O as it were. (4.30) gives the pattern of derivation schematically and (4.31) illustrates it (Dixon 1977:310).

(4.30)a.	A	O	instrumental		Vt
b.	S	dative or locative	instrumental		V-:*dyi*
c.	A	dative or locative	O		V-:*dyi-nga-l*

(4.31)a. *bamaal ganguul galaa bagaal*
person:erg wallaby spear:inst spear
'A person speared a wallaby with a spear.'

b. *bama gangulala galaa bagaadyinyu*
man wallaby:loc spear:inst spear:antipass

c. *bamaal gangulala gala bagaadyingaal*
man:erg wallaby:loc spear spear:ap:advan
'A person speared a wallaby with a spear.'

In other languages with instrument advancement in transitive clauses there is no evidence of the antipassive. In Dyirbal, Wargamay, Nyawaygi and Kalkatungu the corresponding patterns are as in (4.32).

(4.32)

A	0	instrument	V
A	dative	0	V-advancement marker

The following example is from Dyirbal (Dixon 1972:93-95) with deictics omitted.

(4.33)a. *dyugumbil yara-nggu yugu-nggu balgan*
woman man-erg(A) stick-erg(I) hit
'Man hit woman with stick.'

b. *yugu yara-nggu balgalman dyugumbil-gu*
stick(0) man-erg(A) hit:advan woman-dat
'Man is hitting woman with stick.'

(4.34a) and (b) illustrate the analogous advancement in Kalkatungu. (4.35) is the construction used to describe the action of killing a snake by picking it up by the tail and whipping it against a rock. In this activity the snake is wielded like an instrument but the point of the activity is to affect the instrument. The advancement of an instrument to the relation that characteristically expresses patient captures this neatly. In this instance I do not know if there is an unadvanced alternative.

(4.34)a. *kalpin-tu lha-mi thuarr thalimpirri-thu*
man-erg(A) hit-fut snake(0) club-erg(inst)
'The man will hit the snake with the club.'

b. *kalpin-tu lha-manti-mi thuarr-ku thalimpirri*
man-erg(A) hit-advan-fut snake-dat club(0)
'The man will use the club to hit the snake.'

(4.35) *kalpin-tu lha-manti-mi thuarr nita-pia*
man-erg(A) hit-advan-fut snake(0) rock-loc
'The man will hit the snake on the rock.'

4.4.4 *Indirect Object and Allative Advancement*

In Yidin[y] a dative complement of intransitive verbs such as those meaning *laugh at, cry for* and *sneak up on* can be advanced to 0 as illustrated in the following sentences (Dixon 1977:307),

(4.36)a. *ngungu bunya bading munggaanda*
that woman cry husband:dat
'That woman is crying for her husband.'

(4.36)b. *ngundyuung bunyaang mungga baditngal*
that:erg woman:erg husband cry-advan
'That woman is crying for her husband.'

Dative complements (indirect objects) can be advanced in Kalkatungu (Blake 1979a) and Pitta-Pitta (Blake 1979b). Some problems associated with the description of this advancement are discussed in section 4.4.6.

In a number of prefixing languages of Arnhem Land the O series of cross-referencing pronouns refers to a dative complement in preference to O. A marker is inserted into the verb to indicate that the O pronouns have this function. Compare the Mara one-word sentence for *He killed me* (4.37a) and for *He killed it for me* (4.37b) (Heath 1981:202),

(4.37)a. *rang-nang-anyi*
kill-he:me-aux
'He killed me.'

b. *ma-rang-nang-anyi*
ben-kill-he:me-aux
'He killed it for me.'

Note that (4.37b) does not involve a pronominal form for 'me' different from that used for O. The prefix *ma-* indicates that the pronominal form *nang* for third person singular acting on first person singular is to be interpreted as 'third acting *for* first'.

It is not always made clear whether the dative complement if expressed by a nominal remains in the dative or is advanced to O. In Rembarnga it seems both are possible (McKay 1975:266). In (4.38b) the indirect object seems to have been advanced to O, but in (4.39) it remains in the dative.

(4.38)a. *nga-tyalman wurpparn-kan*
I-like emu-dat
'I like emu.'

b. *nga-pak-tyalman wurpparn*
I - ben - like emu
'I like emu.'

(*nga* is probably *nga*-plus-zero, i.e. the transitive complex pronoun for first singular acting on third which is indistinguishable from the S pronoun for first singular. See also section 6.6).

(4.39) *tan-pak-tyuy?-ya nginta-kan*
thou:me-ben-send-fut me-dat
'You will send it to me.'

In Rembarnga the 0 series of pronouns, in conjunction with *pak*, can refer to certain allative complements where more than simple direction is involved, as with the allative complement of the verb for *speak to*. Allative advancement also occurs in Ngandi (Heath 1978a:92).

Prefixes with the same function as *pak* occur in Warndarang (*ma*), Ngandi (*pak*) and Nunggubuyu (*(wa)ag*). In Ngandi and Nunggubuyu the dative complement remains in the dative.

Where the 0 series of bound pronouns cross-references the recipient object in a double object construction no advancement marker ever appears (nor does it in non-Australian languages).

Diyari and some of its neighbours to the north, Ngamini, Yarluyandi and Yandruwandha (Austin 1981a:77ff), have a marker in the verb to indicate the presence of an adjunct with the role of beneficiary. One function of this marker seems to be to facilitate the omission of any nominal for the beneficiary. If the beneficiary is expressed it is in the dative.

(4.40) *nga-thu* *kupa-kupa* *nhayi-nhayi-ipa-rna*
I-erg child-child see-see-ben-participle
wanthi-yi *walpala-ya*
aux-pres white:man-dat
'I looked after the children for the white man.'

The use of the auxiliary and part(iciple) is explained in section 7.3.1. There are no cross-referencing pronouns in Diyari.

4.4.5 *Aversive and Causal Advancement*

Yidin^{y} allows for the advancement of aversive complements of a few verbs of fearing. As noted earlier in section 3.5.6 Yidin^{y} has a case covering what is to be feared or avoided (Dixon 1977:309). Kalkatungu has advancement of causal adjuncts. In Kalkatungu there is a causal case covering aversion and cause (Blake 1979a:47, 89).

4.4.6 *Some Problem Examples*

As noted in section 1.5 most Australian languages have a suffix meaning roughly 'having'. In languages with a case system the *having* suffix is always a pre-case suffix. A number of factors suggest that it is derivational: (a) its pre-case position, (b) the occurrence of lexicalised formations (where the meaning is not predictable from the meanings of the stem and the suffix, (c) the fact that *having*-suffixed nominals feed nominal-to-verb derivation, and (d) the fact that the *having* suffix derives a nominal subclass

of adjectives from common nouns (see sections 1.5, 5.2.1 and 5.2.2 for illustrations and discussion). All these factors hold in Yidin^{y}, but in that language there appears to be the possibility of advancing a *having*-suffixed nominal to O since there are pairs of sentences like those in (4.41). (4.41a) illustrates the *having* suffix and (4.41b) the apparent advancement of the 'possessed' nominal to O (Dixon 1977:293ff).

(4.41)a. *waguudya bunyaay galing*
man woman:having go
'The man is going with the woman.'

b. *wagudya-nggu bunya gali-ngal*
man-erg woman go-advan
'The man is going with the woman.'

The notion of advancement with nominals that are marked with a derivational suffix (plus nominative case) seems incongruous. It may be that the *having* suffix has dual status, appearing as a pre-case derivational suffix and as an inflectional case suffix. It may be that pre-case suffixes should not be considered entirely derivational (see discussion in chapter five). Or it may be that the members of pairs like (4.41a, b) should not be related directly. Examples parallel with (4.41b) can be found in a great number of languages. They are reported, for instance, from a number of Queensland languages (Holmer 1983):

Goreng-Goreng	*yunma-ndi*	sleep with (lie with)
	ngine-ndi	sit with (sit with)
	webe-ndi	bring (come with)
Wakka-Wakka	*baa-rri*	bring (come with)
Wirri	*wurba-ri*	bring (come with)
Gunggari	*waga-ndi*	run away with
	binda-ma	sit with or nurse (a child)

It is not always clear that there is an unadvanced counterpart and in few instances the correspondence is with a comitative locative. In Kalkatungu, for instance, ***A sleeps with B*** is ***A nuu B-loc*** or ***A-erg nuu-nti B***.

In Pitta-Pitta there appears to be advancement of nominals marked by the pre-case genitive suffix *-nga*:

(4.42)a. *nhan-tu-ka marri-ka yanhthurru-nha*
she-erg-here get-past food-acc
ngamari-nga-nha
mother-gen-acc
'She got mother's food/food for mother.'

(4.42)b. *nhan-tu-ka* *marri-la-ka* *ngamari-nha*
she-erg-here get-advan-past mother-acc
yanhthurru-nha
food-acc
'She got mother some food.'

However, since *-la* (a causative) marks the advancement of indirect objects of intransitive (middle) verbs as illustrated in (4.43a) and (b) and since indirect objects (marked by *-ku*) do not occur in transitive clauses, it is possible to interpret the advancement in (4.42b) as the obligatory advancement of an indirect object not the advancement of the adnominal, genitive possessor/ beneficiary. I should add by way of completion that the advancement of the indirect object with middle verbs is a transitivising derivation that serves to feed reflexive-reciprocal formation which is an intransitivising derivation. This is illustrated in (4.43c).

(4.43)a. *karna-parri-0* *wapa-ya* *karna-parri-ku*
man-plur-0 seek-pres man-plur-dat
'The men are looking for the men'.

b. *karna-parri-lu* *wapa-la-ya* *karna-parri-nha*
man-plur-erg seek-advan-pres man-plur-acc
'The men are looking for the men.'

c. *karna-parri-0* *wapa-la-mali-ya*
man-plur-0 seek-advan-recip-pres
'The men are looking for one another.'

The notion of obligatory advancement could be invoked in Tiwi where there seem to be sentences analogous to the Yidin^{y} (4.41b) without a counterpart analogous to (4.41a) (compare remarks above about Queensland languages). The marker in the verb is *-ma(rri)* which is like *pak*, *ma*, etc. in eastern Arnhem Land except that it marks a kind of comitative advancement (Osborne 1974:47).

(4.44)a. *yu-uri*
he-go
'He went.'

b. *yii-0-marr-uri*
he-it-advan-go
'He went with it. He took it.'

(4.45) *yii-marri-ngiliwanthung-uri*
he-advan-wallaby-go
'He went with the wallaby. He took the wallaby.'

To put these examples in perspective it should be noted that Tiwi uses practically no marking for complements or adjuncts so that if the object of (4.44b) and (4.45) were expressed as a peripheral complement it would have to be unmarked. It should also be noted that Tiwi incorporates noun objects. This can be seen in (4.45). Indirect objects (expressing the role of beneficiary, etc.) are marked in the verb by a set of bound pronouns distinct from the subject and object sets.

In Nunggubuyu there is a prefix *-anydyu-* used to derive two-place verbs from intransitive ones where the sense is comitative, e.g. *sit > sit with; sleep > sleep with.* Oddly enough the advancee is not cross-referenced in the verb (Heath 1984:381-3).

NOTES

1. In Relational Grammar a distinction is drawn between anti-passive and the retreat of a direct object to indirect object. Where the demoted nominal appears in the dative, the construction is a candidate for direct to indirect object retreat. See Davies 1984 for references.

2. Baagandji allows verbs of eating and drinking to be used intransitively without specifying a patient (Hercus 1982:183)

3. *nhakayanati* is an intransitive interrogative verb with parallels in many Australian languages. It consists of *nhaka* 'what' plus *-yan* 'having' plus *-(th)ati* 'become'.

4. Dixon (1977:438) notes that the anti-passive with ergative-instrumental demotee seems to have ocurred in the Encounter Bay language of South Australia (original source Meyer 1843).

5. With the double object construction Yindjibarndi allows only a passive in which the subject of the passive corresponds to the recipient object.

a. *Ngaarta yungku-nha ngayu murla-yi*
man give-pass me:acc meat-acc
'A man gave me meat.'

b. *Ngayi yungku-ngulti-nha murla-yi ngaarta-lu*
I give-pass-past meat-acc man-inst
'I was given meat by the man.'

6. The intransitive-allative is a verbal case of the type exemplified in section 3.5.8. As its name implies it is used only in intransitive clauses to indicate the destination of S.

Chapter five

THE NOUN PHRASE

5.1 Problems

Describing the noun phrase in Australian languages is not so easy as it would seem at first glance. In quite a few languages the words translating an English noun phrase can appear in any order and need not be contiguous, i.e. they may be scattered around in the clause. This gives rise to the possibility that such languages do not have genuine noun phrases and that contiguous nominals translating an English noun phrase may be in parallel, each contracting its own relationship with the verb.

In some languages case suffixes appear only at the ends of phrases, i.e. they have the same distribution as postpositions. In these languages the pre-case suffixes also appear only on the last word. Some of these pre-case suffixes appear on other grounds to be derivational, so there is a problem in reconciling their derivational properties with their distribution. In other languages the case suffixes appear on all nominals as in the classical languages, but so do the derivational-looking pre-case suffixes. The appearance of putatively derivational suffixes exhibiting apparent agreement seems anomalous. The problem of finding the most appropriate description is not unrelated to the question of whether there are true noun phrases, since it is possible to interpret the apparent agreement of derivational suffixes as evidence that juxtaposed nominals referring to the same entity are in parallel.

In section 5.2 I shall discuss the interpretation of case suffixes and pre-case suffixes in languages that mark grammatical relations only on the final word in the phrase (phrase-marking (PM) languages) and in languages that mark grammatical relations on all words in the phrase (word-marking (WM) languages). The discussion will be confined to examples where there appears to be a head noun modified by an adjective, a possessor phrase or a demonstrative. Other types of noun phrase will be described in section 5.3.

5.2 Interpreting Case Suffixes and Pre-case Suffixes

5.2.1 *Phrase-marking (PM) Languages*

PM languages are widely distributed in Australia and include Warlpiri, various dialects of the Western Desert language and the Arandic languages of central Australia; Kunjen, Wik-Munkan and Kuku-Thaypan in Queensland; Rembarnga and Murinʸ Pata in the Top End, and Diyari in South Australia.

The following examples are from Warlpiri. In (5.1a) *tyarntu wiri* is a phrase and the ergative case marker appears only on *wiri*. In (5.1b) *tyarntu* and *wiri* are separated, so the case marking occurs on both (Hale 1973:314).

(5.1)a. *tyarntu wiri-ngki=tyu yarlki-rnu*
dog big-erg=me bite-past
'The big dog bit me.'

b. *tyarntu-ngku=tyu yarlku-rnu wiri-ngki*
dog-erg=me bite-past big-erg
'The big dog bit me.'

In this language enclitic pronouns are placed in second position, unless the 'clitic complex' is disyllabic or longer, in which case they can be placed initially. The 'clitic complex' consists of the enclitic pronouns and, in some tenses, an auxiliary particle to which the enclitics are attached. Note that the positioning of the clitic complex provides a test for constituency. In (5.1a) it supports the evidence provided by the case marking to show that *tyarntu wiri* is a phrase.

The next example is from the Warburton Ranges dialect of the Western Desert language (Douglas 1964:87).

(5.2) *ngayu-ku tyityi minarli purlka kutyarra*
me-gen child boy big two
nyarra-lu=ya nani pungu
that-erg=they rabbit hit
'Those two big boy-children of mine killed a rabbit.'

The long noun phrase illustrates typical Western Desert word order: possessor - head noun - adjective - demonstrative adjective. The form *=ya* is an enclitic pronoun for third person plural subject.

Since phrase-final case marking has the phrase as its scope, the possibility of interpreting such markers as enclitic postpositions arises. This means taking them to be syntactically independent but phonologically dependent. In chapter two the conjunctive pronouns of French were described

as clitics (enclitic with imperatives (*Va-t-en*! 'Go (thou) away!') and proclitic elsewhere (*Je le vois* 'I see it')). This interpretation seems appropriate inasmuch as the conjunctive pronouns are not pronounceable as separate words yet have some syntactic characteristics of words; the subject pronoun, for instance, figures in inversion in questions: *Aimez-vous Brahms*? 'Do you like Brahms?'. Phrase-final case markers cannot be pronounced as independent words, but their scope is the same as that of recognized (phonologically independent) postpositions. However, there is a major obstacle to taking them to be postpositions. A case is usually represented by a set of case markers. The ergative, for instance, is often represented by forms such as *-ngku*, *-lu*, *-tu*, *-tyu* and *-rtu*. A particular case marker is used with a particular subset of nominals, but this is not a matter of *government* (or *lexical selection* if one wants to confine government to inflection); the case marker does not determine the range of nominals it can occur with. Rather the final word in the phrase determines the choice of case marker. The choice of case marker in a PM language is determined in exactly the same way as it is in a WM language, by phonological properties or, more importantly, morphological (arbitrary) properties of the stem. This means that one cannot always establish an underlying form for the set of case markers (assuming one believes in 'item and process' phonology) and a case would be represented by a 'postposition' consisting of a set of alternatives. Even where the conditioning is phonological, one cannot always establish an underlying form. It is common to find *-ngku* with disyllabic vowel stems and *-lu* with longer vowel stems, but there is no principled way of choosing a single base form on which process rules can operate.[1]

Implicit in all this is the point that there is no relationship between the case marker and the head of the phrase as we would expect with a postposition governing a phrase. The phrase-final marker does not determine the case of the head of the phrase.

With objects it is common to find a zero case marker alternating with positive forms such as *-nha* or *-nya* (see section 2.2.1). In the enclitic postposition analysis one would have to allow a zero postposition (but that means morphological conditioning) or allow the object, for instance, to be represented by a noun phrase or a postpositional phrase. This is inelegant, but in some languages recognition of such an alternation is inevitable, in Spanish, for instance, where the preposition *a* marks (roughly) specific animate objects.

In some languages case marking can appear on a nonfinal word in the phrase as well as the final one. Where this is so the postpositional analysis is clearly unworkable.

The obvious alternative to the enclitic postposition

analysis is to take the phrase-final case marking to be inflectional and this interpretation is implicit in almost all descriptions of PM languages. It might seem at first blush that this interpretation is unworkable because the case marking is found on a variety of parts of speech, namely nouns, adjectives, pronouns and demonstrative adjectives, whatever happens to occur at the end of the phrase. But all these parts of speech are sub-classes of the broader part of speech, nominal. However, there is a difficulty for the inflectional interpretation arising from the fact that the marking is not always on the head of the phrase. In fact in a multi-word phrase the marking is usually on a dependent as in (5.1a) and (5.2) above. In most grammatical models it is recognised that the head of a construction governs only its immediate dependents (not its grand-dependents); alternatively, the head of a construction is subcategorised only by its dependent sisters. This means that a verb is subcategorised by its immediate dependents (noun or verb), but not by their dependents, not, for instance, by an adjective dependent on a noun dependent. The difficulty then for most grammarians would be to show how marking on the second order dependent can satisfy the valency of the verb. A transformationalist could assign case to a noun phrase node, copy it onto the final constituent of the noun phrase and then delete it from the noun phrase node. This latitude, of course, tends to render the constraint on subcategorization vacuous.

To see what is involved consider (5.1a) above. One naturally interprets *tyarntu* 'dog' as an argument of the verb and *wiri* 'big' as a modifier of *tyarntu*, but the ergative suffix *-ngki* which one would expect to find on *tyarntu* appears rather incongruously it would seem on *wiri*. Note too that the vowel of the ergative is determined by the final vowel of *wiri*; compare *wiri-ngki* in (5.1a) with *tyarntu-ngku* in (5.1b).

One possibility would be to add a zero alternant to the existing set of case markers for each case and then specify that all non-final words in the phrase took the zero variant. In dependency theory the head noun would receive case from the verb and the dependents of the noun would receive case from it. This is a feasible solution though in some varieties of dependency theory (Starosta 1985), it would not be possible to account for the distribution of zero and non-zero alternants, since the dependency rules have to be based on heads and the head noun would be within the scope of the rule, i.e. a non-final head would itself have to take zero.

Note that placing case marking on the final word in the noun phrase irrespective of which nominal sub-class it belongs to and irrespective of whether it is the head of the phrase or not is different from the situation encountered in German and certain other languages where the case marking may appear on a dependent only. In the sentence *Ich sah den*

Mann 'I saw the man' accusative marking occurs on the determiner *den*, but not on the head noun *Mann*. However, *Mann* is certainly in the accusative case (see discussion in section 2.2.1); it is just that in this paradigm no marker is used. The presence of an accusative marker for the masculine singular determiner (*den*) distinct from the nominative (*der*) and the absence of same for nouns is related to the nominal sub-class not to position or dependency relations.

Another possibility would be to consider that the phrase is a compound. This means that the whole phrase becomes a single syntactic constituent and the case marker is united with its head. Applying this to (5.1a) would mean treating *tyarntu wiri* as a compound suffixed by *-ngki*.

One further factor we need to consider in interpreting case suffixes in PM languages is the distribution of pre-case suffixes. As mentioned in the previous section these too occur only on the final word of a phrase in a PM language. (5.3) illustrates the genitive in Alyawarra (Yallop 1977: 117-8) followed by the instrumental case (with nouns, ergative, instrumental and locative are marked alike).

(5.3) *aylityla artwa ampu-kinh-ila*
boomerang man old-gen-inst
'With the old man's boomerang.'

There are quite a few pre-case suffixes in some languages (particularly in the Western Desert language and some of its neighbours) and they have meanings such as 'toward', 'from', 'adjacent to', 'belongs to', 'having' and 'lacking'. Some meanings such as 'having' and 'lacking' are expressed by pre-case suffixes in all case-marking languages, but local meanings such as 'toward' and 'from' are more frequently expressed via cases proper.

I will assume that the pre-case suffixes are not enclitic postpositions since in some instances their form is morphologically determined by the stem to which they are attached (and of course they are within the scope of the case markers proper). However, there remains the question of whether they are inflectional or derivational. The following observations are relevant to determining their status:

(a) They are inflection-like in that they are fully productive, i.e. they can be used with all nominals or specific subclasses of nominals. Although this is characteristic of inflection, it is worth noting that some suffixes that are normally taken to be derivational on the grounds that they change verb valency are also fully productive, e.g. reflexive intransitivising suffixes (see section 4.3).

(b) With some exceptions to be noted below under (f) the pre-case suffixes are semantically regular. Those with local

meanings, for instance, seem to have a constant meaning just as local case suffixes do. The regularity is characteristic of inflection rather than derivation. Derivational affixes often have different effects with different stems as with the Diyari form *-thadi* illustrated in section 4.3.5.

(c) In some instances pre-case suffixes appear to mark the complement of the verb. In the following pair of Warlpiri sentences *-kurra* marks the destination complement. In (5.4) it looks like a case suffix but a comparison with (5.5) suggests that it is followed by an absolutive zero (examples supplied by Ken Hale).

(5.4) *ngarrka-ngku kurdu yilya-tya ngurra-kurra*
man-erg child send-past camp-all
'The man sent the child to the camp.'

(5.5) *ngarrka-ngku kurdu watyilpu-ngu*
man-erg child chase-past
ngurra-kurra-rlu
camp-all-erg
'The man chased the child to the camp.'

Note that with *chase* A moves to the destination as well as the patient and *-rlu* on *ngurra-kurra* signifies this. Even though the complement-marking function is characteristic of inflection, I think derivational affixes can mark complements as in *He went Cloncurry-way, She lives Boulia-side, He put it lengthways* and Keats' *Lethewards I had sunk*. Of course an adverb minus any affix can bear a case relation (*He put it down*), so it might be argued that the suffix only indirectly allows the valency to be satisfied, i.e. by creating an appropriate adverb. In (5.4) and (5.5) *ngurra-kurra* can be treated as a derived nominal: *The man camp-bound chased the child.*

(d) They have phrasal scope as in the following example from Pintupi where the pre-case suffix *-tyarra* 'having' has *kamula mankurr* as its scope (Hansen and Hansen 1978:91),

(5.6) *purtu=rna-ra nyinangu kamula*
in:vain=I-3s:dat sat camel
mankurr-tyarra-ku
few-having-dat
'I waited in vain for the [boy] who had three camels.'

This is an awkward problem since both inflection and derivation normally operate on single stems. Note, however, that the *-ed* adjective deriving suffix in English operates on complex stems as in *level-headed, narrow-minded, bull-*

necked, double-breasted, chicken-hearted and *dim-witted*. Here the scope of the suffix is the modifier plus the head since we do not talk of people being *headed, minded, necked, hearted* or *witted* or of suits being *breasted*. We normally take these words to be compounds and I suggested above that some phrases may have to be considered words to reconcile the position of case markers with their scope. If a compound analysis is adopted, the pre-case suffix in examples like (5.6) will not have phrasal scope.

(e) Nominals marked with pre-case suffixes usually occupy characteristic positions with respect to the head noun. Possessor pronouns marked by a pre-case genitive or dative usually precede the head as in (5.2) above and other pre-case marked nominals tend to follow. This means that pre-case suffixes could be interpreted as deriving subclasses of nominal that are syntactically if not morphologically distinct. In Kunjen, for instance, we find *abm onalkal-ngandty* (man island-from-erg) 'an islander (did so-and-so)' (Sommer 1972:49). We could take *onalkal-ngand* to be a derived adjective; it occupies the post-head position of underived 'describing words'.

(f) Lexicalised formations occur mainly with 'having' suffixes. The Pintupi word *mukala-tyarra* is literally 'stomach-having' but it means 'pregnant'. This word has calques in numerous Australian languages. Other Pintupi examples include *kuru-tyarra* (eye-having) 'blind' and *pina-tyarra* (ear-having) 'deaf'.

(g) Pre-case suffixation can feed derivation. In Pitjantjatjara, for instance, *paku* 'tired' can be suffixed by the pre-case suffix meaning 'lacking' to produce *paku-wiya* 'not tired' which can serve as a stem for *-ri* the suffix that forms intransitive verbs from nominals: *paku-wiya-ri* 'be(come) not tired'. The following examples from Pintupi illustrate a pre-case suffix with a local meaning feeding the analogous derivation (Hansen and Hansen 1978:145, 75).

(5.7) *pupanya-tyanu=la pitya-la*
Papunya-from=we come-part
yayayi-kutu-rri-ngu
Yayayi-to-become-past
'After going from Papunya we came to Yayayi.'

(5.8) *tyampityinpa=0 kurri-kutu-rri-ngu*
Tyampityinpa=3s wife-toward-become-past
'Tyampityinpa has gone to (marry) his wife.'

(h) More than one pre-case suffix can appear in a word.

Such a distribution could be accommodated in terms of order classes of inflection or derivation, but the sporadic, infrequent nature of pre-case combinations is suggestive of derivation.

It is clear that an analysis of pre-case suffixes in PM languages wholly in terms of inflection is untenable since at least such suffixes must be derivational where the formation is lexicalised or serves as a stem for a derivation that changes part of speech. It is possible to take pre-case suffixes to be derivational providing one accepts the compound analysis to account for the phrasal scope. On the other hand an inflectional analysis is possible if we allow lexicalised exceptions of the form [N + precase] to be entered into the lexicon and allow stems of this shape to feed N-to-V derivation (all the examples I have seen of such examples are single word ones). Under (e) I mentioned that nouns bearing pre-case suffixes tended to occupy a certain position within the phrase. *Having*-derivatives, for instance, along with nominals meaning 'big','good','red', etc. usually follow the head noun. We could consider these describing words as a syntactically distinct subclass of nominals, [+noun, +adjective] and take the *having*-suffix to derive members of the subclass from common nouns. However, we can maintain an inflectional analysis if we specify the ordering requirement in semantic terms rather than in terms of grammatical categories, i.e. we could use a rule based on ***head*** and ***modifier*** and not recognise an adjective subclass.

Whether we take pre-case suffixes to be derivational or inflectional we have the problem of suffixes appearing on a dependent yet having a head and a dependent as their scope. The means I suggested for reconciling the placement of the suffix with its scope, namely compound formation, will involve the embedding of one compound within another by productive compounding rules that mirror conventional phrase structure. In (5.3) for instance *artwa ampu-* (man old) will be a compound stem suffixed by the genitive *-kinh* within a larger compound stem suffixed by *-tia*: [*aylityia-*[*artwa-ampukinh*]*-tia*].

In the following Watjarri example one would have a compound *thuthu-putanyuwa* within a compound [[*thuthu-putanyuwa*]*mawu-lu*],

(5.9) *thuthu puta-nyuwa mawu-lu mayu patya-rna*
dog lice-having that-erg child bite-past
'That lousy dog over there bit the kid.'

A few languages are of the PM type but differ in some respects from the typical PM languages described up to this point.

Diyari differs from the majority of PM languages in that the determiner comes first in the phrase-like sequence. The

determiner is always marked for case and if there are any other words sharing the same grammatical relation the final word in such a sequence is also case-marked. This is illustrated in (5.10) where *nhulu* is an ergatively marked determiner and *karna pirna-li* an ergatively marked sequence of noun plus adjective.

(5.10) *nhu-lu karna pirna-li wama thayi-yi*
he-erg man big-erg snake:acc eat-pres
'The big man eats snake.'

With this arrangement it is immediately clear that the case marking on the determiner is inflectional. The determiners are homophonous with third person pronouns and case marking is always inflectional for pronouns. It is not clear what the relationship between the 'determiner' and the rest of the phrase is, and one could possibly take the determiner to be the head, with the following sequence interpreted as taking case by agreement. Words like *nhulu* in (5.10) could be third person pronouns rather than determiners related to third person pronouns by zero derivation. These pronouns would have the option of taking noun dependents.[2]

In Kuniyanti (McGregor 1984:223ff and pers. comm.) the case marker appears on only one word. This word can be of any nominal subclass, be in any position in the phrase and be either a head or a modifier. Quite often the case marker is attached to the first word in the phrase as in the following,

(5.11) *ngurru-ngka karntiwirri yuwulu*
that-erg two man
'By those two men.'

This placement rules out the compound analysis. McGregor takes the case markers to be postpositions since their scope is the phrase and not just the word to which they are attached and any variation in the forms used is phonologically conditioned.

The term *postposition* is something of a misnomer when one considers that the case markers do not follow the whole phrase. One is reminded of monosyllabic prepositions in Latin which could be enclitic to the first word as in the well known *summa cum laude* 'with highest praise' (*cum* is obligatorily enclitic to pronouns, *vobis=cum* 'with you'). However, the term is not important. What does matter is that we have an analysis compatible with most versions of dependency theory. The postposition will be a direct dependent of the verb, being either the head of the adpositional phrase or co-head along with the head of the noun phrase, according to one's understanding of the structure of adpositional phrases, and the postposition will have a form and not be a set of forms from which a selection is made by an immediately

preceding word. The noun phrase governed by the postposition can be discontinuous as in (5.11). McGregor takes pre-case suffixes like the 'having' suffix to be postpositions too, but notes that this suffix in particular sometimes has 'stem-forming' properties: *yuwarni* 'one'; *yuwarni-ngarri* 'once'.

He also points out that although the positioning of the case marker appears to be free it is in fact significant from the discourse point of view. The case marker appears on the 'information focus', the textually most important element of the phrase, the constituent that bears the strongest stress in the phrase. In *marla tumu-ngka* (hand clenched-erg) 'by a fist' the case marker appears on the word that specifies the special property of the hand in question, the fact that it is 'clenched'.

In Kuniyanti a notional phrase may be split with each part marked by the case-marking postposition. This gives equal salience to the separate parts.

(5.12) *yuwulu-ngka* *ngurru-ngka* *ngaarri*
man-erg that-erg stone
yikanyi *tuwunga=ngarra*
uncertain he:took:it=me+obl
'Maybe that's the man who took my money.'

In Uradhi case marking is obligatory only on one word in the phrase, but since this word is the head there is no difficulty with an inflectional analysis of marking.

The idea of taking certain phrases to be compounds was originally suggested to me by Starosta. Recently Dick Hudson has suggested that adjective-noun sequences in English be considered compounds so that *blue eye(s)* would be a compound generally not just in *blue-eyed* (compare remarks above). Hudson also suggests taking determiners in English to be the heads of noun phrases (Hudson 1984:88ff).

5.2.2 *Word Marking (WM) Languages*

Languages that mark case on all relevant words are also quite common in Australia. They include Dyirbal, Yidiny, Wargamay, Nyawaygi, Kalkatungu, Yalarnnga, Pitta-Pitta and Garawa all in Queensland, plus the Yuulngu languages of north-east Arnhem Land (N.T.), and the Pilbara languages of Western Australia (Austin 1981c).

Some of these exhibit great freedom of word order, for instance Dyirbal, while others have a regular though not invariable word order, at least as regards noun phrases, for instance Pitta-Pitta (Roth 1897, Blake 1979b).

The following example of a language marking case on all words is from Kalkatungu. Kalkatungu is a language with free word order and this freedom extends to the set of words used

to translate an English noun phrase. These words can appear in any order and may be scattered through the clause. Some possible permutations of the words used to translate *This big dog will bite the white man* are shown in (5.13a-g).

(5.13)a. *tyipa-yi thuku-yu yaun-tu yanyi itya-mi*
this-erg dog-erg big-erg white:man bite-fut

b. *tyipayi thukuyu yanyi ityami yauntu*

c. *yauntu tyipayi thukuyu ityami yanyi*

d. *tyipayi yanyi ityami thukuyu yauntu*

e. *yanyi ityami tyipayi thukuyu yauntu*

f. *thukuyu tyipayi ityami yanyi yauntu*

g. *tyipayi yanyi thukuyu yauntu ityami*

It must be understood of course that 'free word order' does not imply random word order. Presumably all languages exhibit pragmatic and stylistic word order rules. All that is implied is a lack of rigid grammatical rules of word order.

In WM languages pre-case suffixes like the genitive and the *having* suffix appear on all nominals representing the particular relation involved. (5.14a) illustrates the genitive in Kalkatungu; (5.14b) illustrates the fact that the genitive appears on all the words representing the possessor, and (5.14c) illustrates the fact that the genitive marking precedes the marking of case such as the ergative.

(5.14)a. *kalpin-ku thuku*
man-gen dog
'Man's dog.'

b. *kalpin-ku yaun-ku thuku*
man-gen big-gen dog
'Big man's dog.'

c. *kalpin-kuwa-thu yaun-kuwa*[3]*-thu thuku-yu*
man-gen-erg big-gen-erg dog-erg
ityayi=ngi
bite=me
'The big man's dog bit me.'

The following example from Garawa (Furby and Furby 1977: 30) illustrates the fact that the *having* suffix precedes a case suffix (here the allative) and appears to exhibit agreement.

(5.15) *dyiladyba-yi dyuga malbu-yurri*
go-past boy old:man-to
gudyarra-yudi-ynggurri badyangu-yudi-ynggurri
two-having-to dog-having-to
'The boy went to the man (who) had two dogs.'

These pre-case suffixes tend to be fully productive and semantically regular like their counterparts in PM languages and there are a few examples like the Yidin^{y} one quoted in chapter four (4.41) that could be interpreted as having a pre-case suffix marking the complement of a verb. All this is suggestive of inflection and the fact that the pre-case suffixes figure in agreement is highly suggestive of inflectional status. However, as in the PM languages there is evidence of derivational status. The following points match (e), (f) and (g) in the previous section:

(a) Genitives and *having* words have a different distribution from underived common nouns. In order to describe the distribution of nominals one could recognise genitives and *having* words as syntactic sub-classes of nominal.

(b) Lexical formations occur involving pre-case suffixes. In Kalkatungu, for instance, *purtu-yan* 'stomach having' means 'pregnant' (cf. the Pintupi word *mukala-tyarra* quoted above).

(c) Pre-case suffixation feeds derivation. In Kalkatungu the genitive can serve as a stem for nominalisation.

(5.16)a.	*utyan*		fire
	utyan-ku(wa)		of the fire
	utyan-kuwa^{s}*-ngu*		fire-lighting material, e.g. matches
b.	*pinytyamu*		sun
	pinytyamu-u(ya)		of the sun
	pinytyamu-uya-ngu		something to do with the sun/time, e.g. clock

And *having* formations can serve as stems for noun-to-verb derivation. (5.17) is from Kalkatungu and (5.18) from Yidin^{y} (Dixon 1977:298).

(5.17) *wampa tyaa mimi-yan-ati-mi*
girl here breast-having-intransitiviser-fut
'This girl will be starting to get breasts.'

(5.18) *bibiyuwuy murraan-dyi-dagaany*
Bibiyuwuy sick-having-intransitiviser:past
'Bibiyuwuy became sick.'

Examples analogous to (5.17) and (5.18) are common enough, but examples like (5.16) where the genitive-marked form serves as a stem for derivation seem to be rare.

In general we can make the same points about pre-case suffixes in WM languages as about the corresponding suffixes

in PM languages. The only significant difference is that in WM languages pre-case suffixes behave like case suffixes proper and appear on every word in the relevant phrase whereas in PM languages pre-case suffixes appear only on the last word in the relevant phrase. It might be thought that the fact that pre-case suffixes in WM languages exhibit agreement would exclude the possibility of a derivational analysis; after all, derivational suffixes do not agree, they are internal to the stem. However, it is possible to interpret the apparent agreement as stemming from the use of apposition, i.e. it is possible to claim that apparent noun phrases are not phrases at all but collocations of nominals in parallel, each contracting its own relationship with the verb. A sentence like (5.15) above would be interpreted as something like *The boy went to the old man, to the two-haver, to the dog-haver*.

The apposition-asyndeton interpretation of apparent agreement involving pre-case suffixes was advanced in Blake 1983 with reference to Kalkatungu. As noted above, Kalkatungu has very free word order so that words translating an English noun phrase may theoretically appear in any order and may be separated by other words. In fact the translational equivalents of English adjectives are separated from their expected heads more often than not. I took this freedom to be *prima facie* evidence for lack of structure within the clause, in particular as evidence for there not being any noun phrases. This means that I take sentence (5.13) to be literally *This-one dog big-one white-man bit* with the first three words in parallel. I see the distribution of pre-case suffixes as confirmation of this interpretation.

Heath was probably the first to cast doubt on the noun phrase status of the translational equivalents of English noun phrases in WM languages. In his description of Ngandi he notes that 'noun phrases which have more than one constituent are typically formed by apposition... the various constituents are often formally independent of each other; they often each have a complete set of affixes... and may be separated from each other by pauses and even by other constituents such as a verb. (Heath 1978a:52).

One of the languages Heath has described, Ritharngu, a Pama-Nyungan (Yuulngu) language of north-east Arnhem Land, is like Warlpiri in that pronominal enclitics for core relations appear in second position and thus provide a test for constituency (compare (5.1) above). Heath notes that the first 'constituent' is generally a word, except that certain combinations behave as a single constituent, most notably combinations of noun and modifying genitive pronoun, whereas 'other modifiers such as nouns functioning as adjectives, and demonstrative "pronouns" used as adjectives, as well as juxtaposed Genitive NP's, are treated as separate constituents. This is consistent with the fact that such modifiers are often

pronounced separately, rather like English appositives (*that man, the big one*, ..) and are often separated from the modified noun by other words.' (Heath 1980a:90). (5.19) illustrates an enclitic following a combination of genitive pronoun and noun while (5.20) illustrates a 'phrase' split by an enclitic and a verb.

(5.19) *nhan-ngu baapa=ngay waant-na ngumbala*
he-gen father=he go-past that:way
'His father went there.'

(5.20) *darramu=ngay nhiina-nha dumurru*
man=he sit-past big
'The big man sat down.'

Unfortunately Heath does not supply an example where a 'phrase' is split just by an enclitic. There do not appear to be any examples in the texts either. This is partly because arguments tend to be represented in texts by pronouns or single nouns and partly because nominal expressions are often placed outside the clause proper set off by an intonation break (see also section 9.2).

Heath also suggests an appositional analysis for NP-like groups in Nunggubuyu. He points to intonational breaks between possible constituents of an NP, lack of hard and fast rules about ordering, and to the fact that these words are often separated, for instance by the verb. He notes that sequences of noun plus adjective sometimes are pronounced with no intonational break, but so are sequences of nouns in apposition on occasions (Heath 1984:497ff).

The apposition-asyndeton analysis makes most appeal in languages with grammatically free word order. In languages like Garawa where a noun and its modifiers cohere in a regular though not invariable order, it is more likely that there are genuine noun phrases and the apposition analysis is not very plausible. Technically it can be maintained in some such languages if one posits no structure below the level of the head noun. However, it is much more likely that pre-case suffixes in WM languages with apparent noun phrases are basically inflectional. As with pre-case suffixes in PM languages we need to recognise stems of the form [N + precase] where such forms are lexicalised or serving as stems for further derivation. We also need to describe the placement of a noun's modifiers in semantic terms rather than in terms of grammatically distinct subclasses of nominal.

A few case languages do not fit neatly into the PM/WM classification. In Ngiyambaa, Ngaliwuru and Djamindjung case marking may be omitted from some nominals in a phrase providing it is retained on at least one. In Uradhi, as mentioned earlier, case marking is obligatory only on the head of the noun phrase. In Guugu-Yimidhirr and Bandjalang case marking

may be on all nominals OR at the end of the phrase. In Rembarnga case is normally marked only in phrase-final position, but it may appear on separate words (McKay 1975:71).

5.3 Co-ordinate and Superordinate Constructions

In section 5.2 the discussion of noun phrase structure was confined to examples with an apparent noun head with an adjective, genitive or demonstrative modifier. However, there are also the following types of putative noun phrase to be considered:

(a) co-ordinate
(b) superordinate

5.3.1 *Co-ordinate*

Among Aboriginal languages there are basically three strategies for translating an English co-ordinate noun phrase:

(i) juxtaposition
(ii) use of a conjunction analogous to *and*
(iii) use of a word or clitic meaning 'they' or 'they two' or simply 'two'

Simple, asyndetic juxtaposition is probably the most common strategy and even in languages where a co-ordinator is found, juxtaposition is often used. The juxtaposed elements may be linked by an intonation pattern suggestive of coordination.[4]

Garawa, for example, seems to have two co-ordinating particles (***bagi*** 'and' and ***marda*** 'also') which can be used between all co-ordinands in a sequence but it also uses the most basic strategy. (5.21) illustrates juxtaposition and (5.22) the use of the co-ordinating conjunction (Furby and Furby 1977:21ff).

(5.21) ***ngargadaba*** ***wuni-na*** ***bargu-na***
spear(verb) spear-inst stick-inst
yalu-nggi-li
they-refl-habitual
'They used to spear each other with spears and sticks.'

(5.22) ***dadagi*** ***bagi*** ***mundararra*** ***nana-nkuya***
Dadaki and Mundararra that-dual
gurnda-wuya...
tree-dual
'Dadaki and Mundararra, those two trees,...'

It is not always clear what the grammatical status of co-ordinating particles in Australian languages is. They could be analogous to English *and* or to words like *too* and *also*. I will leave the question open, merely pointing out that the fact that a particle translates as 'and' does not mean it is a genuine co-ordinating conjunction. The co-ordinands could be in an 'additive' construction as in: *We will play Jones this week, also Smith, also Brown.*

The use of a third person non-singular form to mark conjunction is found in Ngandi (Heath 1978a:128) where *pula* 'they two' is usually added to the second of two co-ordinands or sometimes to both as in the following,

(5.23) *ṇi-goyow-pula a-dyinma-pula ba-buydhini*
Ni-croc-and A-shark-and they-fought
'The crocodile and the shark fought.'

In WM languages all co-ordinands are marked for case and this seems to be true of some PM languages too, for instance Warlpiri (Nash 1980:176).

As noted in section 5.2.1 above, definite noun phrases in Diyari with third person heads are accompanied by a determiner (or third person pronoun). Where nouns are conjoined this determiner/pronoun reflects the number of the combination. This is illustrated in (5.24) where *pula* is 'they two' (Austin 1981a:230).

(5.24) *pula matharri ya wiha ngurra-nhi*
they:2 man and woman camp-loc
ngama-yi
sit-pres
'The man and the woman are sitting in the camp.'

In light of the suggestion made in section 5.2.1 that the determiner/pronoun may be the head of the noun phrase, it is interesting to note that *pula* does not agree with the adjacent co-ordinand as in English (*This man and these women*).

(5.24) is presented partly to illustrate how the use of a non-singular third person pronoun can serve to bind co-ordinands. It is easy to see how the use of such a pronoun, used appositively or as the head of a phrase, can develop into a co-ordinator as in the Ngandi example quoted earlier. In this regard note the apposition between the co-ordinated pair and the dual noun phrase in (5.22) and the analogy between these constructions and the inclusive construction described below in 5.3.2.1.

Conjoined nouns can not only be accompanied by a non-singular pronominal form as in (5.24) they can be represented elsewhere in the clause or in another clause by a nonsingular pronoun or cross-referenced by a non-singular clitic pronoun

or pronominal inflection. Some grammar writers take this to be evidence that the co-ordinands form a constituent, but this is not evidence for constituency. After all a non-singular pronoun can refer to singular nouns that are listed with intonational pauses between them or singular nouns that are not contiguous (*Harry, Bill, Tom, they all came. Tom came, Harry too. They both ...*)

5.3.2 *Superordinate*

Superordinate is a useful cover term for the following types of putative noun phrase all of which have in common that one nominal is more inclusive and the other more specific. In each instance the apparent immediate constituents are juxtaposed without any marking (e.g. genitive) indicating a relationship between them. The sub-types are as follows (using Pitta-Pitta examples):

(5.25)a. inclusive construction
ngali ngamari
we:2 mother
'Mother and I'

b. generic specific
kathi kulpila
meat kangaroo
'Kangaroo'

c. whole part
karna mara
'Man's hand'

5.3.2.1 Inclusive Construction

In the *inclusive construction* a non-singular pronoun is accompanied by one or more nominals supplementing the information supplied by the pronoun. For instance, in the Pitta-Pitta example quoted above (5.25a) *ngali* refers to the speaker and an unidentified person; *ngamari* identifies this person as the speaker's mother. In some cross-referencing languages, mostly prefixing ones, this construction is not favoured; instead the inclusive pronoun occurs only in the verb as in the following example from Mara (Heath 1981:302),

(5.26) *ṇa-na gariyi-marr ṇirri-lini*
the man we-went
'The man and I went.'

Information on the syntactic relationship between the inclusive pronoun and the following nominal is scanty in the literature. It is interesting to note, however, that in the

Western Desert language, which normally marks case only at the ends of phrases, both the pronoun and the following nominal are separately marked. However, they must be contiguous in contrast to wholes and parts as described in section 5.3.2.3 below. The following example is from the Yankunytjatjara dialect (Goddard 1983:101)

(5.27) *ngayulu Tyampu-la tyana-la nyina-ngi*
I Tjampu-loc them-loc sit-past:imperf
'I stayed with Tjampu and the others.'

Goddard suggests that each element is a separate noun phrase (witness the case marking) and that the two make up a complex noun phrase (note the strict adjacency requirement).

5.3.2.2 Generic Specific Constructions

In many Australian languages a handful of generic nouns are used together with more specific nouns. The generic nouns usually cover meanings such as edible plant/vegetable food, edible animal/meat, tree, flying creature or place (used with place names). In (5.25b) *kathi* 'meat/animal' is the generic noun and *kultila* 'kangaroo' the specific. The use of generic nouns as accompaniments to more specific nouns is in complementary distribution with the use of noun classification by prefix or suffix (see sections 1.3 and 2.2.3) and it is generally assumed that noun classification arises from the use of generics (see, for instance, Dixon 1980:102, 273).

While 'generic-specific' constructions are semantically distinct from noun-adjective ones, it is not certain that they are syntactically distinct. In PM languages case marking normally appears only on the second noun (usually the specific one) as in (5.28) from Alyawarra (Yallop 1977:119) and in WM languages case marking appears on both as in (5.29) from Lhanima. In both types of language the generic and specific may be separated and appear as separate phrases.

(5.28) *arula akarityi-ka utnth-tyla*
tree wild:orange-dat search-pres:cont
'(We're) looking for wild orange trees.'

(5.29) *kathi-nha nga-thu wama-nha pirta-nya*
meat-acc I-erg snake-acc kill-past
'I killed a snake.'

5.3.2.3 Whole-part Constructions

Where reference is made to a whole and a part of that whole as in *man's head, leaves of the tree, bank of the river*, etc. Australian languages usually place the word for the whole and the word for the part in parallel with no genitive

expression corresponding to English *'s* or *of*. Most of the examples in the literature are of human or animal possessors and body parts. 'Body parts' typically include one's name, footprints, soul, shadow and substances emanating from the body such as blood, tears and faeces.

The normal possessor construction with the genitive is not prohibited entirely with body parts. In some languages of the east coast the genitive is an option frequently used, but in most other suffixing languages the genitive is rare for *my hand*, *your foot*, etc. The motivation for placing the possessor on an apparently equal footing with the part in certain constructions rather than as a dependent would appear to stem at least partly from the fact that affecting a body part often affects the whole person or animal. This is clear in an example like the following from Yalarnnga and also in the English translation.

(5.30) *kupu-ngku* *ngiya* *ṭatya-mu* *thina*
spider-erg me bite-past foot
'The spider bit me on the foot.'

However, the explanation is weakened somewhat by the fact that not all languages, in Australia or elsewhere, have a construction in which the possessor is not a dependent of the body part (English has both possibilities).

Until very recently most writers on Australian languages presented the whole-part construction as an example of a type of noun phrase (but see Hale 1981b, Tsunoda 1981a). True, the whole and the part could be separated, but in most Australian languages so could any sequence that looked like a noun phrase. However, it seems that more often than not the whole and the part are separate phrases that can be juxtaposed.

If a language has a case system, then one finds that both the whole and the part are marked for case. In a WM language this is of no significance, but it happens in PM languages too. In the following example from the Yankunytjatjara dialect of the Western Desert language (Goddard 1983:103), the whole and the part bear the A relation. Yankunytjatjara is a phrase-marking language and it is a language in which the instrumental relation is expressed by the locative (locative-instrumental) case, so that *-ngku* on *marangku* cannot be interpreted as instrumental as it could be in those languages where the ergative expresses both A and instrumental.

(5.31) *watí-ngku* *mara-ngku* *papa* *pu-ngu*
man-erg hand-erg dog hit-past
'The man hit the dog with his hand.'

So in PM languages case marking suggests that the whole and the part are in separate phrases.

In the Western Desert language discontinuity is not the norm, so it is significant that a person or animal and its body part can be separated; (5.31) could be expressed as *watingku papa marangku pungu*. This is in contrast to what we find with the inclusive construction (see (5.27) above) where the pronoun and noun, though separately marked, are always contiguous (Goddard ibid.:101).

A generally applicable test for showing that the whole and the part are separate phrases even when adjacent is the possibility of separate modification for the whole and the part. Hale (1981b:338-40) mentions this possibility, but his Warlpiri example (5.32) involves discontinuity.

(5.32) *tyirri-ngki* *wirltya-tyarra* *pantu-rnu*
thorn-erg foot-dual pierce-past
kurdu *wita*
child small
'The thorn pierced the two feet of the small child.'

There is a lack of suitable exemplification in the literature, probably in part due to the fact that examples with a modified part or modified whole do not occur much naturally, and in part due to the use of discontinuity.

In cross-referencing languages the whole is usually cross-referenced when it appears in an appropriate relation. This demonstrates that the whole is not a dependent of the part (as it would be in the genitive construction) and is consistent with the whole being independent from the part. The following example is from Kalkatungu.

(5.33) *thuartu* *nyini* *ityа* *ku=kin* *thapantu*
snake:erg you bite might=you foot
'The snake might bite you on the foot.'

The fact that wholes and not parts are cross-referenced suggests that the whole bears the grammatical relation indicated by the cross-referencing and that the part is some kind of complement. It suggests that the whole and the part are not on a par, as suggested by the parallel cases (though not necessarily parallel case marking), but that the whole is dominant.

Reflexive-reciprocal constructions also point to wholes being separate from parts. The typical reflexive-reciprocal construction (illustrated in (4.5)) is a derived intransitive construction in which we find instead of an identical A and O simply an S and a reflexive-reciprocal marker on the verb. However, it is possible to have an S plus a nominal marked like O where this nominal is a body part. The following examples are from Kalkatungu. The (a) sentences represent the transitive pattern (which would hardly ever occur with

coreferential A and O) and the (b) sentences the derived intransitive pattern.

(5.34)a. *thuku-yu ityа-yi-nha thuku*
dog-erg bite-tr-past dog
'Dog bit dog.'

b. *thuku ityа-ti-nha*
dog bite-re-past
'A dog bit itself.'

(5.35)a. *thuku-yu ityа-yi-nha thuku yunhthu*
dog-erg bite-tr-past dog paw
'A dog bit a dog's paw.'

b. *thuku ityа-ti-nha yunhthu*
dog bite-re-past paw
'A dog bit its (own) paw.'

The natural interpretation of the relationship between pairs like (5.35a,b) is that it is the same as that in pairs like (5.34a,b) with the noun phrase for the part a complement separate from the object. A rule for deriving intransitive reflexive-reciprocal verbs from transitive verbs with A and O complements would apply irrespective of the presence of any additional complement such as the one represented by the body part.

Dixon (1972:61) notes that in Dyirbal a noun phrase can take a class marker indicating the class of the head noun. In a whole-part sequence only the whole can take a class marker (Dyirbal has four noun classes marked by post-case suffixes on the demonstrative): *bala-n dyugumbil mambu* (the-fem woman back) 'the woman's back'. This suggests a single phrase with the whole as head, but it could be that the part represents a separate phrase and simply fails to take a class marker perhaps because it is in a minor relation (cf. remarks on (5.33) above). The same could apply to Dixon's argument that in Yidin^{y} the whole must be the head since only heads can select a generic modifier and wholes can take generic modifiers as in *minya wungul gambil* (edible:animal carpet: snake tail) 'the carpet snake's tail' where *minya* is the generic selected by *wungul*. There is no doubt *wungul* is a head, but it could be that *gambil* is in a separate phrase. There is in fact one piece of evidence pointing in this direction. In Yidin^{y} the anti-passive derivation involves demoting O to the dative if animate and to the locative if inanimate. If a whole-part sequence is demoted, the whole normally appears in the dative and the part in the locative. Since all nominals in a phrase must be in the same case, this fact argues for a two-phrase analysis - at least in the antipassive version (Dixon 1977:277, 361-2).

(5.36) *bunya wagudya-nda dungu-u baraa-dyi-nyu*
woman man-dat head-loc strike-ap-past
'The woman struck the man's head.'

This looks as if it is an example of the familiar phenomenon of a body-part possessor appearing as an indirect object as in French and certain other European languages (e.g. French *L'homme lui a cassé la jambe* 'The man broke her leg (to her the leg)'), but it should be noted the dative is not used in the ordinary transitive construction.

In the Daly River language, Malak-Malak (Birk 1976:106) the whole and the part seem to be inseparable and to constitute a phrase. Interestingly enough the order *whole part* is used in contrast to *possessed-possessor* in the construction with the genitive. This suggests a consistent head-first order.

(5.37)a. *alawarr tyet*
woman leg
'woman's leg'

b. *muyiny yinya-noe*
dog man-gen
'man's dog'

Malak-Malak is a PM language with invariable markers interpretable as enclitic postpositions.

NOTES

1. Rumsey notes that in Ungarinyin the 'postpositions' are only loosely integrated and consonant clusters may occur at the boundary that are not permitted within a morpheme (1982:59). The term *postposition* is traditionally used in the description of a number of languages where phonologically determined allomorphs occur. In Korean, for instance, postpositions have two variants, one for vowel 'stems' and one for consonant 'stems'. The order in the noun phrase is invariable with the head phrase-final.

can mul=i cold water=subj *can ooyoo=ka* cold milk=subj
can mul=ul " " =obj " " =*lul* " " =obj

2. In Ngancara (Smith and Johnson: personal communication) the determiner comes first and case marking is phrase-final, but in this language the determiner does not take case marking.

3. The genitive has long variants and these are obligatory before another suffix, thus *-kuwa* rather than *-ku* before *-thu*.

4. Dyirbal stands outside these generalisations in that an overt co-ordinator must be used (Dixon 1972:62).

Chapter 6

BOUND PRONOUNS

6.1 Introduction

This chapter summarises the main features of bound pronoun systems. Some of the information also appears elsewhere in the text in connection with grammatical relations, constituency, word order and auxiliary verbs.

About three quarters of the continent's languages have bound pronouns, all the non-Pama-Nyungan ones (save Wanyi) and more than half the others. The languages lacking bound pronouns are mostly to be found in a continuous area running from the south-west of the continent to northeast Queensland with an enclave in north-west Western Australia (see map).

6.2 Relations Cross-Referenced

Most cross-referencing systems provide for the cross-referencing of subject and direct object and quite a few also cross-reference other functions such as indirect object, benefactive (*for her*) comitative (*with her*), allative (*to her*) and ablative (*from her*). Where non-core functions are cross-referenced the referents are typically humans or higher animates. Often the potentiality for cross-referencing divides a morphologically distinct case into two syntactically distinct relations. As noted in section 3.3 the A relation is cross-referenced but not the instrumental, a fact that serves to distinguish these relations which are very often marked by the same ergative/instrumental case. Similarly one finds that a benefactive relation will be distinguished from a purpose one by the possibility of the former being cross-referenced, and a comitative from a locative. The Hansens' grammar of Pintupi provides a good example of an analysis exploiting the cross-referencing/non-cross-referencing distinction.

The relations cross-referenced are distributed across languages in such a way as to form the following implicational hierarchy:

(6.1) Subject > O > IO > ben. etc. > inst. etc.

Instrumental etc. represents the set of relations that is never cross-referenced; ***benefactive*** etc. stands for benefactive, comitative and cross-referenced allatives and ablatives (which need labels to distinguish them from their non-cross-referenced counterparts where the two are opposed). It may be possible to make further distinctions within this position on the hierarchy. Cross-referenced benefactives are certainly more common than the others. If a relation in this group is cross-referenced, it implies that all relations higher on the hierarchy are cross-referenced. Similarly the cross-referencing of indirect object implies the cross-referencing of direct object, and the cross-referencing of direct object implies the cross-referencing of subject.

There is no straightforward example of a language cross-referencing the subject to the exclusion of all other complements, but Wik-Munkan comes close in that it has a full set of obligatory subject forms and only first and third singular forms for other complements. Moreover these oblique forms are optional (Kilham 1977:42-3). Kalkatungu cross-references both subject and object, but in the imperfect and sequential aspects the subject is obligatorily cross-referenced to the exclusion of the object, and Wurm (1969:60) reports that Guwamu and a number of eastern Pama-Nyungan languages have bound forms for subject but usually express O by a free form.

6.3 Sets of Bound Pronouns

Bound pronouns usually occur in two sets, a subject set and an object set, with a fair sprinkling of languages having a third set for indirect object and a handful of languages having extra sets again as in Pintupi where there is a causal set and a 'reciprocal/possessive' set (see Table 14). The available sets form a hierarchy parallel with the hierarchy in (6.1), but there is not necessarily a one-for-one correspondence between relations cross-referenced in a particular language and the sets available because:

a) some languages use their third 'indirect object' set of bound pronouns not only for indirect objects (in the sense outlined in section 3.5.1) but for lower relations on the hierarchy such as benefactive and (characteristically human) allative.

b) some languages cross-reference relations lower on the hierarchy than O with the same series of forms as is used for O. In some grammars such a set of forms is referred to as the O series, but it might be better to consider such sets as ***oblique***.

In some languages a marker is included in the verb when the oblique series cross-references benefactive or some other non-core relation. One such marker, *ma-* in Mara, was illustrated in (4.37b) in chapter 4. But in other languages the oblique series cross-references a non-core relation without there being any indication that the relation involved is not O. This happens, for instance, in the Ngaanyatjara dialect of Western Desert where relations such as destination and source, both quite low on the hierarchy, are cross-referenced (Glass and Hackett 1970:42).

(6.2) *Vincent-nga-nta mapitya-ngu nyuntu-lakutu*
Vincent-nom-you:obl go-past you-allative
'Vincent went to you.'

(6.3) *mantyi-nu-rni nganku-lamartatyi kuka*[1]
get-past-me:obl me-ablative meat
'He/she got the meat from me.'

Where a verb meaning 'give' takes the double object construction (*Mary gave Jane a drink*), the recipient object (arguably the direct object) is cross-referenced by the O series of bound pronouns.

It is interesting to note that the bound pronouns regularly distinguish subject and object even though about half the languages involved distinguish nominative, ergative and accusative in the marking of free nominals and hence distinguish three core relations S, A and O rather than S-A (subject) and O. In fact no Australian language has bound pronouns distinguishing S, A and O or S-O (absolutive) and A across the board. Some languages, mostly in New South Wales, do have third person bound pronouns showing an A versus absolutive distinction in marking (Ngiyambaa, for instance; see Donaldson 1980:126), and Yukulta on the Gulf of Carpentaria marks S, A and O separately in the first and second person singular(see also the discussion in section 10.4).

However, although there is practically no tendency for bound pronouns to deviate from a subject-object basis in the direction reflecting nominal morphology, nevertheless there are deviations from such a system in another direction. Among the non-Pama-Nyungan languages the marking of the subject-object distinction sometimes reflects a person hierarchy with first and second person taking precedence over third. Marking appears on O only when a lower A acts on a higher O, thus it appears in *They hit me* but not in *I hit them* (details are given in section 6.6 below). Moreover, in many non-Pama-Nyungan languages the sequence representing a particular combination of A and O (e.g. first plural acting on second singular) is not always analysable into A plus O plus relational marker, so that one is presented with S forms on the one hand and portmanteau A-O forms on the other.

Hierarchically determined relational marking and portmanteaus tend to go hand in hand; thus one finds languages with some analysable A-O combinations affording evidence of the hierarchy plus some opaque A-O combinations.

In some languages there is fusion of tense/aspect or mood marking and bound pronouns. In Wik-Munkan, for instance, we find the following forms for third person plural subject (Kilham 1977:46)

(6.4)	present	*-anṯàn*	future	*-ayn*[2]
	past	*-ṯn/-ṯyin*	subjunctive	*-ṯytàn/-ṯwtàn*

The bound pronouns of Pintupi are presented in table 14 as a sample. In Pintupi these forms follow the first constituent of the clause and are therefore clearly enclitic. The mixture of suppletion (e.g. *-rna, -rni, -ryu*) and case affixation (0, *-nya, -mpa, -ra, -ngku*) is typical of such systems but Pintupi is unusual in having so many sets and so many long agglutinated combinations (e.g. *tyana-mpa-lu-ra*).

6.4 Where the Bound Pronouns Occur

In most lanuages the bound pronouns are affixed to the verb, suffixed in all the Pama-Nyungan languages and prefixed in almost all the non-Pama-Nyungan ones. In some non-Pama-Nyungan languages such as Bardi and the Daly River languages only the subject forms are prefixed; the object forms follow the verb. As noted in chapter one the position of these bound pronouns with respect to the verb served as the main basis for Capell's classification of Australian languages into suffixing and prefixing. In a number of languages, mostly prefixing ones, there are two verb words, a grammatical verb (usually referred to as the auxiliary) and a lexical verb (often called the verb particle - see chapter seven). The bound pronouns almost always appear on the auxiliary.

In a handful of Pama-Nyungan languages the bound pronouns occcur following the first constituent in the clause. This is a feature of most of the Western Desert dialects for instance. In some instances the bound pronouns are suffixed to an auxiliary particle and it is the whole complex that appears in second position. This happens in Walmatjari and Warlpiri for example. Illustrations of bound pronouns can be found at various points in the text, suffixed to the verb: (1.10), (1.11); prefixed to the verb: (1.12); attached to the first constituent: (2.1), (2.2), and attached to a host particle (glossed as auxiliary): (2.6) to (2.8).[3]

The term *bound pronoun* is a useful cover term for what must ultimately be analysed as clitic pronouns or as inflection. Where these pronominal forms are attached to the first constituent of the clause, they are obviously enclitics. Where the subject and object are represented by a fused

Table 14: Pintupi Bound Pronouns

	Subject	Object	Indirect Object	Causal	Reciprocal/ Possessive
1	*-rna*	*-rni*	*-tyu*	*-tyura*	*-rnatyu*
1du	*-lityu*	*-linyatyu*	*-limpatyu*	*-limpatyura*	*-lityungku*
1pl	*-latyu*	*-lanyatyu*	*-lampatyu*	*-lampatyura*	*-latyungku*
12du	*-li*	*-linya*	*-limpa*	*-limpalura*	*-lingku*
12pl	*-la*	*-lanya*	*-lampa*	*-lampalura*	*-langku*
2	*-n*	*-nta*	*-ngku*	*-ngkura*	*-ngkun*
2du	*-pulan*	*-ntapula*	*-ngkupula*	*-ngkurapula*	*-ngkupulan*
2pl	*-nyurra*	*-nyurranya*	*-nyurrampa*	*-nyurrampapalura*	*-ngkunyurra*
3	*-Ø*	*-Ø*	*-ra*	*-lura*	*-ngku*
3du	*-pula*	*-pulanya*	*-pulampa*	*-pulampalura*	*-ngkupula*
3pl	*-ya*	*-tyananya*	*-tyanampa*	*-tyanampalura*	*-ngkuya*

portmanteau as in some of the prefixing languages (see section 6.6 below), the inflectional analysis is preferable.

In Garawa there are free pronouns plus for certain combinations of A and O a compound form. The compound itself is free, but consists of bound O plus bound A. The bound variants are not radically different from their free counterparts and the compound remains easily analysable as an OA sequence (C. Furby 1972:5).

(6.5) *yiiigadyba-yi* *nurru-ny-dyalu* *mama-nyi*
ask-past us-acc-they food-dat
'They asked us for food.'

The free pronouns in this language and the compound forms can be suffixed for tense, aspect and the imperative mood.

Warumungu (Warramunga) also has AO compound pronouns (Hale 1973, Simpson and Heath 1982), and Gugadj has AO compounds that can appear as free forms or be enclitic to an auxiliary particle.

6.5 Is it Agreement?

Although cross-referencing is often described as a type of agreement, it is really a separate specification of a referent. The appearance of agreement derives from the fact that two specifications of the same referent will normally match in person and number, for instance they will both be first person singular or both be second person dual. Of course there is the obvious discrepancy that the bound forms in the third person are less specific than their free counterparts being simply masculine, vegetable class, third person in general or some such generic class. Moreover there is often some number neutralisation in the bound forms; dual and plural are often neutralised (under the plural form), at least in combinations where both A and O are non-singular. However, there are a few more notable discrepancies. In (6.6) from Ngalakan (Merlan 1983:82) we find an example of the not uncommon phenomenon where a first person non-singular bound form cross-references a non-first person,

(6.6) *ŋu-bolo* *yirr-nguniny* *gony*
M-old:person we:it-ate kangaroo
'The boss and I ate the kangaroo.'

This is analogous to the inclusive construction illustrated in (5.26) in chapter five, except that the first person appears only in the verb. Here the referents are partially specified in a free nominal and partly in bound form. Hale presents examples of the following type from Warlpiri in which a referent is specified as speaker or hearer by a bound form and as a 'type of third person' by a free form (Hale

1973:317),

(6.7) *ngarrka ka-rna purla-mi*
man aux-I shout-nonpast
'I man am shouting. I, a man, am shouting.'

If the full specification were given by free nominals, it would involve apposition/asyndeton.

6.6 Principles of Bound Forms

Bound pronouns do not follow the same principles of positioning, marking and specification as free pronouns do. With regard to position there is the obvious fact that bound forms occupy a fixed position in the clause, a position that may not be the regular position for free pronouns. A and O forms always occupy a fixed position with respect to one another. In some languages the order is AO (Tiwi, Gunbalang, Murin[y] Pata and the Barkly languages), in others it is OA (Rembarnga, Yanyula and Garawa), but more often the order is largely determined by hierarchical principles. It is common for first and second person forms to precede third person forms irrespective of which is A and which is O. This is illustrated in the following examples from Gunwinggu (Kunwinjku),

(6.8)a. *nga-be-n bun*
I-them-acc hit
'I hit them.

b. *nga-n-di bun*
I-acc-they hit
'They hit me.'

With regard to case marking, we find that while a majority of languages use an accusative marker to distinguish O bound pronouns from subject ones throughout the paradigm, some prefixing languages provide marking only where O is higher on the hierarchy than A. This system of marking is known as an *inverse* one. The following illustration is from Rembarnga (McKay 1975, 1976),

(6.9)a. *pa-nga-na*
they-I-saw
'I saw them.'

b. *nga-n-pa-na*
I-acc-they-saw
'They saw me.'

Where A and O are both non-third person, the expected pronominal form fails to occur more often than not. By

'expected' form I mean the form we would obtain by taking the S forms and adding accusative marking for the one functioning as O. What usually happens is that a form for A or O, but not both, appears. Moreover, the form that appears is often a one-off suppletive alternant.

In Rembarnga there are some regular forms involving second person plural as shown in (6.10).

(6.10)a. 1s -> 2 pl *na-nga*

b. 1pl -> 2 pl *na-yarr*

Note that no accusative marker *-n* appears here, suggesting that 1 is higher on the hierarchy than 2. This is confirmed by the absence of *-rra*, the plural marker, from the S form *narra*. In Rembarnga the presence of plural marking is hierarchically determined, being omitted from the lower ranked actant in a combination. However, alongside these regular combinations there are forms such as the following,

(6.11)a. 1s -> 2s *ngin*^{y}
(*ngin*^{y} is S form for 2s)

b. 2s -> 1s *ta-n* (*ta* occurs for 2s A in one other combination)

c. 2s -> 1pl *yarra-n*
(*yarra* is S form for 1 pl)

d. 2pl -> 1s *yana*

e. 2pl -> 1pl *yarra-n-pa*

f. 1pl -> 2s 0

These involve the omission of any form for one participant (2s object in (a), 1s object in (b), 2s A in (c) and both participants in (f)). (d) involves the substitution of a plural form for first person (the expected form would be *nga-n-na*) and (e) involves the substitution of third plural *pa(rra)* for second plural (the expected form would be (*yarra-n-na*).

It is perhaps easier to appreciate these principles from an examination of a complete system. Table 15 gives the S forms in Rembarnga and Table 16 the A/O combinations. Most of the labels are self-explanatory. 1 is first person, 2 second and 3 third, with 12 representing the inclusive person 'thou and I'. 12 plural represents 'thou and I plus at least one other person'.

In order to appreciate the principles involved in the transitive combinations it is useful to consider that each combination 'should' consist of the S form for A, the S form

for O plus an accusative marker. These theoretical forms serve as a reference point from which to gauge the degree of opacity introduced by the special hierarchical principles and the somewhat ad hoc suppletions and omissions in the forms involving first and second person.

Here is a check list of the general rules or principles for easy reference:

(i) O precedes A

(ii) If a lower person/number acts on a higher, a suffix *-n* appears on O (if overt). The hierarchy is 1>2> 3pl>3s.

(iii) No plural marking on lower person/number.

(iv) *-rra* becomes *-rr* sequence finally

(v) *-n* is lost before n^y.

Table 15: Rembarnga S Prefixes

	Singular	Plural
1	*nga*	*yarra*
12	*ya*	*ngarra*
2	*ngin*^{y}	*narra*
3	*O*	*parra*

Table 16: Rembarnga A/O Prefixes

A (transitive subject)	O (object)							
	1	1pl	12	12pl	2	2pl	3	3pl
1	-	-	-	-	*ngin^{y}*	*nanga*	*nga*	*panga*
1pl	-	-	-	-	*Ø*	*nayarr*	*yarr*	*payarr*
12	-	-	-	-	-	-	*ya*	*paya*
12pl	-	-	-	-	-	-	*ngarr*	*pangarr*
2	*tan*	*yarran*	-	-	-	-	*ta*	*pana*
2pl	*yana*	*yarranpa*	-	-	-	-	*narr*	*pana*
3	*ngan*	*yarran*	*yan*	*ngarran*	*ngin^{y}*	*narran*	*Ø*	*parran*
3pl	*nganpa*	*yarranpa*	*yanpa*	*ngarranpa*	*ngin^{y}pa*	*narranpa*	*parr*	*parranpa*

Tables 17 and 18 present the S forms and A/O combinations in the prefixing language, Ngalakan (Merlan 1983:83-88). Ngalakan is relatively closely related to Rembarnga and the interested reader will be able to spot correspondences of form and system. The principal difference between the two systems is that in Ngalakan the third person singular distinguishes masculine/feminine from GU class and MU class nouns.

Table 17: Ngalakan S prefixes

	Singular	Plural
1	*ngu*	*yirri*
12	*yi*	*ngurru*
2	*ngin^{y}*	*ṇurru*
3 m,f	*0*	*burru*
3 GU	*gu-/0*	
3 MU	*mu-/0*	

a) There is a hierarchy operating of the form 1,2>3pl>3s. This manifests itself in two ways:

(i) 1 and 2 precede 3 irrespective of which is A and which is 0, and similarly 3pl precedes 3s. In the equipollent combination 3pl-> 3pl the order is OA.

(6.12)a.	1s	->	3GU	*ngu-gu*
b.	3GU	->	1s	*ngu-n-gu*
c.	2pl	->	3MU	*ṇu-mu*
d.	3MU	->	2pl	*ṇu-ṇ-mu*
e.	3pl	->	3GU	*burr-gu*
f.	3GU	->	3pl	*burru-ṇ-gu/bu-n-gu*

(ii) The accusative marker *n/ṇ* is used only where a lower person/number acts on a higher/person number. This is illustrated in (6.12a-f). *ṇ* (as opposed to *n*) appears when *rrV* is the preceding CV sequence and in the second plural where *ṇuṇ* appears to reflect an expected **ṇurruṇ*. Note that the accusative marker is also used in the equipollent 3pl -> 3pl combination.

b) No plural marker *-rrV* occurs with second plural A (Note that it is redundant in light of the fact that the second singular root is *ngin^{y}*.

c) The V of the plural suffix *-rrV* is lost from A forms occurring immediately before third person forms (including zero).

d) No plural marker with lower ranked person/number (optional for third plural O acted on by GU, MU or third plural).

e) The vowels of the third person roots in O function assimilate to that of the preceding syllable. This also occurs with the third person plural root in A function.

f) In combinations involving two non-third person forms, usually only one 'person' is explicitly represented:

(6.13)

1s	->	2s	*ngin^{y}*	(2s form)
1s	->	2pl	*ṇugu*	(2pl + GU?)
2s	->	1s	*d^{y}u-n*	(2s + acc!)
2s	->	1pl	*yini*	(see 2pl -> 1pl)
1pl	->	2s	*yirri*	(1pl form)
1pl	->	2pl	*yirri*	(1pl form)
2pl	->	1s	*yini*	(see 2pl -> 1pl)
2pl	->	1pl	*yini*	(possibly from *yirri-n-ṇurru* with the application of (d), elision, vowel assimilation, and an ad hoc deletion of number marking from *yirri*: *yirri-n-ṇurru* > *yirri-n-ṇu* > *yirrinu* > *yirrini* > *yini*)

In the competition to be represented 1pl seems to outrank 2 (s and pl) which outranks 1s. 1s manages to get represented only in the 2pl -> 1s form where the 1pl form is used.

g) Where two inanimates are involved, O but not A is represented

The presence of irregular A/O combinations in these cross-referencing systems raises the question of whether the appropriate synchronic analysis isn't to take A/O sequences as unanalysable portmanteaus. The verb would be subcategorised for subject features and object features and the realisation would be supplied from a list in which each item was marked for subject person/number and object person/number. Opacity in cross-referencing systems is confined almost entirely to the non-Pama-Nyungan languages, but within that group opacity varies from language to language and within languages from one part of the system to another. In general it is greatest where both A and O are speech participants and least where at least one core argument is represented by a third person. If one accepts that some or all A/O combinations are synchronically unanalysable, then there is no basis for identifying A rather than O with S and describing such a system as being organised on a subject-object basis.

Table 18: Ngalakan A/O Prefixes

A (transitive subject) \ O (object)	1	1pl	12	12pl	2	2pl	3m,f	3GU	3MU	3pl
1	-	-	-	-	*ngin^{y}*	*ṉugu*	*ngu*	*ngu(gu)*	*ngu(mu)*	*ngubu*
1pl	-	-	-	-	*yirri*	*yirri*	*yirr*	*yirrgi*	*yirrmi*	*yirrbi*
12	-	-	-	-	-	-	*yi*	*yigi*	*yimi*	*yibi*
12pl	-	-	-	-	-	-	*ngurr*	*ngurrgu*	*ngurrmu*	*ngurrbu*
2	*d^{y}un*	*yini*	-	-	-	-	*d^{y}u*	*ɟ^{y}ugu*	*d^{y}umu*	*d^{y}ubu*
2pl	*yini*	*yini*	-	-	-	-	*ṉu*	*ṉugu*	*ṉumu*	*ṉubu*
3m,f	*ngun*	*yirriṉ*	*yin*	*ngurruṉ*	*ṉun*	*ṉuṉ*	*Ø*	*gu ~ Ø*	*mu ~ Ø*	*burruṉ*
3GU	*ngun-gu*	*yirriṉgu*	*yin-gu*	*ngurruṉgu*	*ṉun-gu*	*ṉuṉgu*	*gu ~ Ø*	*gu ~ Ø*	*mu ~ Ø*	*burruṉgu~bun-gu*
3MU	*ngun-mu*	*yirriṉmu*	*yinmu*	*ngurruṉmu*	*ṉunmu*	*ṉuṉmu*	*mu ~ Ø*	*gu ~ Ø*	*mu ~ Ø*	*burruṉmu~bunmu*
3pl	*ngunbu*	*yirriṉbi*	*yinbi*	*ngurruṉbu*	*ṉunbu*	*ṉuṉbu*	*burr*	*burrgu*	*burrmu*	*burruṉbu~bunbu*

6.6.1 *Discontinuous Representation*

In some Pama-Nyungan languages (e.g. Western Desert) and some non-Pama-Nyungan ones (e.g.Nunggubuyu) there is discontinuous representation of some arguments in the bound pronominal system. In Walmatjari, for instance, there are the following enclitic positions (Hudson 1978:59ff),

(6.14)

1	2	3	4	5
aux	person of subject	person of oblique	number of oblique	number of subject

This is illustrated in (6.15) where *-rna*, the first person singular form in most western Pama-Nyungan languages, is here simply first person subject and is pluralised by the fifth order suffix *-lu*. The object is represented by a form for second person 0, *ny*, and a form for second person singular 0, *ta* (n^y becomes *n* before *t*),

(6.15) *nyurra-warnti* *ma-rna-n-ta-lu* *nyanya*
you-plural aux-1S-20-2s0-plSu saw
nganampa-rlu
we-erg
'We saw you.'

6.7 Reciprocal-Reflexive Bound Pronouns

In some languages a reciprocal-reflexive series of bound pronouns is reported. In Walmatjari reflexive-reciprocal is marked by a seventh order suffix *-nyanu*. Orders 1 to 5 are specified in (6.14) above. Order 6 is filled by *-rla* or *nyanta* signalling the presence of a dative or comitative argument being cross-referenced by orders 3 and 4 (see also 4.20). Since *-nyanu* is, with one exception, invariable I prefer to interpret it as a marker of reciprocal-reflexive function rather than as a form representing an argument co-referent with the subject (Hudson 1978:66).

(6.16) *lant* *ma-rna-0-nyanu* *tyina* *ngatyu-ngu*
pierced aux-IS-sgS-refl foot I-erg
I (deliberately) poked my foot.'

In the fairly closely related language, Pintupi, the marker is *-ngku* (see Table 14); it precedes some subject forms and follows others. It may signal collective activity as in (6.17), which would make it difficult to interpret as a referring form, or possession of 0 by A as in (6.18), in addition to its reciprocal-reflexive function (Hansen and Hansen 1978:120-123).

(6.17) *kuka marlu=ngku-ya pakara tyaputyunu*
meat roo=re-they having:arisen fled
'All the kangaroos arose together and fled.'

(6.18) *mani=la-ngku kuwarri mantyilku*
money=we-re today will:get
'We will get our money today.'

6.8 Genitive Bound Pronouns

In some languages a pronominal possessor may be marked by a bound form. Thus in Ngaanyatjara we find *kuka-tyu* 'my meat' where 'my' is expressed by an enclitic form *-tyu*. As noted in section 3.5.1 some languages cross-reference possessors with a possessive pronominal form dependent on the head of the phrase (the possessed entity). This cross-referencing form may be bound as in the following example from Mangarayi (Merlan 1982:66),

(6.19) *ṇa-bugbung-gu barnam-ṇawu nga-wa-b*
M:gen-old:man-gen camp-his I:it-visit-past
'I visited the old man's camp.'

Note in passing that genitive and dative are not morphologically distinct in Mangarayi, both being represented by the widespread suffix *-gu/-wu* and by the prefix *na* (used for nominative, genitive/dative and locative). The gloss *gen* is used (following Merlan) reflecting the genitive function as indicated by the cross-referencing of the possessor.

Bound pronominal forms in possessor function dependent on nouns may seem unconnected with bound pronominal forms used on the verb or in 'second position'. However, there may be formal identity between the forms used with nouns and forms used elsewhere in the clause. Moreover, when such forms are used on the verb or as enclitics to the first constituent they can still express possessor, as well as recipient, beneficiary or other similar function. In the following example from Ngaanyatjara the form *-nku*, the first enclitic, expresses second singular indirect object (possessor function). It may also be used as an enclitic to a noun: *mama-nku* 'your father'.

(6.20) *tyilku palyamunu-lu=nku-n mama paylra*
child bad-erg=you:IO-you father growling
'You, bad child, growling at your father.'

6.9 Finale

The principles exhibited by the bound pronoun systems of Australian languages can all be found operating in other parts of the world. The ordering of elements according to a

person hierarchy, for instance, can be illustrated from French where a third person indirect object proclitic follows a direct object proclitic, whereas a first or second person indirect object precedes:

(6.21)a. *Je le lui donne* I give it to him (*lui*)
Je te le donne I give it to thee (*te*)

French also illustrates an irregularity where a first person object occurs with a second person indirect object or vice versa. It will not allow both to be represented by clitics,

(6.22) *Il me présentera à vous.*
(not *me vous* or *vous me*)
'He will introduce me to you.'
Il vous présentera à moi.
(not *vous me* or *me vous*)
'He will introduce you to me.'

This conflict of first and second person for representation is clearly reminiscent of the situation found in Rembarnga, Ngalakan and a number of other Australian languages where first and second person core arguments compete for representation.

Neutralisation of number in clitic systems is widespread. It occurs for instance in Italian where the third person indirect object form *gli/glie*, traditionally singular, is now used for both singular and plural *Glielo daremo* 'We will give it to him/her/them'.

Some of these principles can be expected to be peculiar to bound pronouns as opposed to free ones. Bound pronouns are used for arguments that tend to be *given* (rather than *new*) and therefore not so much in need of maximum specification. It is not surprising that some number neutralisation occurs; the free forms are available as a back up where more specification is necessary.

The ordering of first and second person clitics before third irrespective of function would appear to reflect the tendency for the speech participants to be chosen as topics over third persons and the tendency for topics to precede non-topics. One would expect this ordering tendency to be found with free forms; perhaps it is, but it has not been reported much. Rigsby's note that with free pronouns in the three Lama-Lamic languages first person precedes second and third irrespective of which is A and which is O is a rare exception (1976:262). With free A and O pronouns, of course, one or other is likely to be focused and therefore placed accordingly (e.g. clause initially), but bound pronouns do not normally allow for the expression of focus.

The positioning of the clitic pronouns in second position is not unexpected in light of the common discourse

strategy of using the sequence-salient first position in the clause for pragmatically salient material (focus or setting principally) and then ordering the rest of the clause on a topic-before-comment basis (see chapter nine). Pronouns tend to represent relatively topical material and to appear in second position and this is apparent in discourse samples from a number of languages. It is very striking in Pitta-Pitta where the word order is likely to be subject-first where the subject is a noun, but verb first where the complements are pronominal. Moreover, A and 0 pronouns tend to cluster, with the sequence being pronounced as one word. Note the following and compare (6.23b) with the Garawa example quoted earlier (6.5) where the two pronouns are bound to one another.

(6.23)a. *karna-lu nhu-lu-ka piyawarli-nha pithi-ka*
man-erg he-erg-here dog-acc hit-past
'The man hit the dog.'

b. *nhatyi-ka nga-thu=in-(nh)a*
see-past I-erg=you-acc
'I saw you.'

The organisation of cross-referencing systems on a subject/object basis is presumably a reflection of the fact that pronouns generally lack ergative marking but have accusative marking, the bound forms being reflexes of earlier free forms. This point is taken up again in chapter ten. Interestingly enough, where number is marked on the verb (and this can occur separately from the cross-referencing and in languages that lack cross-referencing), it tends to refer to the number of the absolutive (S+0). Such a system of number marking occurs for instance in Nunggubuyu, Dyirbal and Kalaw Lagaw Ya (the Western Torres strait language) from which the following example is chosen (Comrie 1981:7, 12)

(6.24)a. *Burum uzariz*
pig went:away-sing
'The pig went away.'

b. *Burum uzarman*
pig went:away-dual
'The two pigs went away.'

(6.25)a. *Ngalbe garkoez-il mathamoeyn*
we:two man-pl hit-pl
'We two hit the men.'

b. *Ngalbe garkoez-il mathamoeman*
we:two man-pl hit-dual
'The men hit us two.'

Kalaw Lagaw Ya has a nominative/ergative/accusative case opposition but there is no marking with non-singular pronouns and plural nouns so the number marking on the verb in (6.25) serves to identify O and thereby differentiate A from O.

NOTES

1. Goddard (1983:123) notes that in some instances in Yankunytjatjara where an 'accusative clitic' appears to be equivalent to a locative expressing addressee, there is in fact the possibility of a free accusative as an alternative to the locative.

2. Other languages with fusion of tense etc. and bound pronouns include Yukulta, Garawa and Kalkatungu

3. In some languages where the bound pronouns are enclitic to the first word, the enclitic complex sometimes 'wanders' to a position later in the clause or is repeated later in the clause. This is the situation in Djaru, for instance.

Chapter 7

LINKING VERBS

7.1 Introduction

This chapter deals with structures analysed as single clauses with more than one verb. It invites comparison with chapter eight which deals with structures analysed as sentences containing more than one clause. Three types of multi-verb clause-like structure can be distinguished:

a) those with uninflected non-finite lexical verbs (verb particles) used with finite verbs (auxiliaries). This type occurs in many of the non-Pama-Nyungan languages of northern Australia and some of the northern dialects of Western Desert (e.g. Yulbaridja).
b) those with non-finite participial verbs used with finite verbs. This type is found, for instance, among the Western Desert languages and also in Diyari (South Australia) and some of the related languages to the north.
c) those with more than one finite verb. This type is found, for instance, among the Western Desert languages and in Dyirbal and some of the neighbouring languages of north-east Queensland.[1]

7.2 Auxiliaries and Particles

Among the prefixing languages it is common to find a distinction between what Australianists call ***auxiliaries*** and what they call ***verb particles***.[2] ***Auxiliaries*** are verb-like in that they have grammatical properties associated with verbs such as hosting marking for tense, aspect and mood and for the person and number of the subject and sometimes other complements. They may or may not contribute a verb-like meaning. The ***verb particles*** are verb-like in that they carry meanings such as 'swim', 'bring' and 'give', meanings that imply arguments ('give' implies a giver, a gift and a recipient). However, formally they are normally bare stems which

serve as non-finite forms requiring an auxiliary for the expression of tense and for the hosting of bound pronouns.

The distinction between auxiliary and verb particle can be illustrated from Wunambal (Vászolyi 1976:629, 640). In (7.1) *yala* is the uninflected lexical verb particle and *wanban* an inflected form of the auxiliary.

(7.1) ***yala ngu-wanban***
hunt I-aux:present
'I hunt.'

Most auxiliaries can also appear without verb particles in which case they have a lexical meaning. The auxiliary illustrated in (7.1) appears on its own with the meaning 'to fall',

(7.2) ***ngu-wanban***
I-fall:present
'I fall.'

One usually finds that some verbs of motion or stance with meanings like 'come', 'go', 'stand', 'sit', and 'fall' double as auxiliaries and although in some instances one can see the appropriateness of a particular choice of auxiliary with an uninflected verb particle, often the auxiliary is meaningless, as in (7.1). It is necessary to recognise formal identity between an auxiliary and the lexical verb with which it is homophonous, since the two will share a paradigm, often an idiosyncratic one, but the two cannot always be equated semantically.

Most particles can normally appear with more than one auxiliary, though by and large the choice is restricted and somewhat idiosyncratic so the possible combinations must be listed in the lexicon. The effect of using different auxiliaries with the same verb particle sometimes produces a causative/noncausative distinction. In Wunambal (Vászolyi 1976:641) we find pairs like *wul nguma* 'lie down' and *wul bungabun* 'lay down' and in Alawa (Sharpe 1976b:721) pairs like *barrig urrga* 'to dry something' and *barrig rri* 'to (become) dry'.

The class of particles is a large open one, the class of auxiliaries a small closed one. In Malak-Malak there are six auxiliaries, and in Ungarinyin fourteen. Sharpe 1976b lists twenty one in Alawa, thirteen in Mara and twenty one in Warndarang.

The words that occur as verb particles are usually peculiar to that class, but sometimes they are homophonous with nouns or other parts of speech; thus the auxiliary can be seen as analogous to a derivational suffix for converting a non-verb to a verb. In Ngangikurungur, for instance, (Hoddinott & Kofod 1976d:695) *dudu* appears as an adjective meaning 'swollen' and is also used with an auxiliary to

produce the intransitive verb 'be swollen': *dudu mem* 'he is swollen'.

Since auxiliaries are finite, formally autonomous forms and since verb particles are non-finite dependent forms, an auxiliary-particle combination would appear to be susceptible of a bi-clausal analysis with the auxiliary as the verb of the main clause and the particle as the verb of a dependent clause. In the following subsections I will describe auxiliary-particle combinations in Maranungku, a Daly River language, and in the Alawa-Mara-Warndarang family of eastern Arnhem Land, and I will suggest that the traditional one-clause analysis is correct, but that the relationship between the auxiliary and particle could be better described.

7.2.1 *Maranungku*

Maranungku is typical of languages with auxiliary-plus-particle constructions in that each verbal sentence must contain at least one verb inflected for tense and carrying a marker for the person and number of the subject and sometimes a direct or indirect object. In (7.3) there is just a finite verb, but in (7.4) this same finite verb occurs with a non-finite verb, the verb particle, (Tryon 1976:19, 1970:18).

(7.3) *tawun* *kangani* *yi*
town nonfut:I:go past
'I went to town.'

(7.4) *tirr* *wuttar* *wat* *kangani* *yi*
edge sea walk I:go past
'I walked to the beach.'

Most verbs that function as auxiliaries as in (7.4) can also appear as the sole verb of the clause as in (7.3). In many instances the auxiliary carries something of its lexical meaning, indicating that an action is performed lying down or sitting or standing. Some verb particles occur with more than one auxiliary, each auxiliary indicating the position of orientation of the subject. For instance, *wirrtya* 'to cry' normally occurs with an auxiliary that is associated with verbs of sitting (*kanginan wirrtya* 'I (sit) cry(ing)'), but it can occur with the auxiliary for verbs of motion to indicate crying while walking: *kangani wirrtya* 'I cry walking' (cf. (7.3) and (7.4) above) (Tryon 1970:24, 51). In some instances, however, the choice of auxiliary seems arbitrary. Normally the auxiliary word consists of three morphemes: a tense marker, a person/number marker for the subject and a root; *kangani* the auxiliary in (7.4) breaks up into *ka-* (nonfuture), *nga-* first person singular subject and *-ni* 'go'. However, the auxiliary illustrated in (7.8) below, *kengi*, breaks up into *ke+ngi+O*. There is no root, or at

least no clearly segmentable one, (Tryon 1970:33) and the auxiliary makes no semantic contribution.

The following facts are relevant to the analysis of particle-plus-auxiliary constructions:

a) The particle and auxiliary are separate phonological words. This suggests they are separate grammatical words.

b) The particle and auxiliary do not always occur in the same order. In the following example the sequence of particle plus auxiliary is repeated as auxiliary plus particle. Note in passing the particle is borrowing from English *work* (Tryon 1970:81).

(7.5) ***wurka kangani, katin kangani wurka...***
work I:went garden I:went work
'I worked, I worked in the garden.'

c) The particle and auxiliary are not always contiguous, though they almost always are (ibid.:88, 85),

(7.6) ***warin wowe yena tat***
we:go camp loc stay
'We went (back) to camp.'

(7.7) ***tat wowe yena nin mata warin pulpul mata***
stay camp loc we:sit dual we:go copulate dual
'We stayed in the camp and copulated.'

d) Sometimes an auxiliary occurs with more than one particle (ibid.:82),

(7.8) ***waw wut kengi***
carry put I:aux
'I put it down.'

kengi in (7.8) is the auxiliary referred to above which has no obvious root and to which therefore no lexical meaning can be ascribed. It is therefore glossed simply as ***aux***.

All these points are compatible with a two-clause analysis and examples like (7.8) with more than one particle are strongly suggestive of a complex sentence with the auxiliary as the highest verb. However, there is evidence that the auxiliary and particle or particles form some kind of unity. Consider now the following further points:

e) It happens quite often that an intransitive auxiliary occurs with a transitive particle, and the direct object of the particle can appear separated from its expected governor (the particle) by the intransitive auxiliary (ibid.:84). See also (7.13) below.

(7.9) *awa nin tyakal me*
meat we:sit eat state
'We ate the meat sitting down.'

If examples like these contain two clauses, then we would have to assume that an object can move out of its own clause. Such an assumption is dubious when the putative movement is regular over auxiliary-particle combinations and rare (if it occurs at all) over the boundaries of finite clauses.

f) Although positing a movement rule will reconcile examples like (7.9) with a two-clause analysis, it will not account for cases where bound pronominal forms representing the direct or indirect object of the particle are attached to an intransitive auxiliary as illustrated in (7.10) and (7.11)(ibid.:82, 85),

(7.10) *kengiya-na paraty kangama-na paty papal*
I:lie-him come I:stand-him throw spear
'I sneaked up on him and threw a spear at him.'

(7.11) *waw panpa kuniya-ngany*
take down they:go-me
'They took me down.'

Note that in (7.11) the enclitic on the intransitive auxiliary belongs semantically with a non-adjacent particle, namely **waw**. And note too the effective use of stance auxiliaries in (7.10). Here the auxiliaries clearly have their lexical sense.

g) The scope of modal particles is the auxiliary and the verb particle or particles. This applies to ***way piya*** negative, ***piya mengke*** expressing inability, ***ngaty*** expressing obligation, ***nuna*** and ***entyi*** both expressing notions such as 'nearly' and 'trying to' and ***tyengi witya*** (a postpositional phrase lit.: 'ear with') 'to know how to' (ibid.:52ff, 86).

(7.12) *way piya kangiya-na paty wakan*
neg neg I:lie-him throw back
'I did not throw [sc. spear] back at him.'

(7.13) *piya mengke mutika kanganti war*
not can motorcar I:go lift
'I cannot lift the motorcar.'

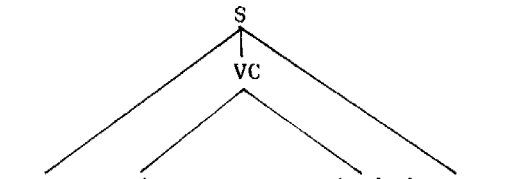
(7.14) *ngaty wintara wany tangama wul nungu*
must quick also you:stand return hither
'You must come back quickly.'

In each example the modal has scope over both the auxiliary and the particle. In (7.14), for instance, the obligation on the subject is not just to stand nor just to return, but to 'return standingly' as opposed to crawling back. Structurally the modal particles are dependents of the finite verb (witness their position in (7.12), (7.13) and (7.14)) and could be expected to modify only their governor. The fact that they modify what would be, under a two-clause analysis, another dependent (the verb particle) casts doubt on a two-clause analysis. In this connection we could compare English *You should try walking* and *You should be walking*. In the first sentence the obligation on the addressee is to make an attempt, whereas in the second sentence the obligation is to be walking. The difference in scope correlates with a structural difference that can be demonstrated on independent grounds; *try* and *walking* are in separate clauses, *be* and *walking* in the same clause.

I think the appropriate way to describe auxiliary-plus-particle constructions is in terms of what Relational Grammarians call Clause Union (see Aissen and Perlmutter 1983). The essential idea is that one verb, the higher verb or main verb, takes over the dependents of any other verb in the Union. The auxiliary being the independent finite verb is clearly the main verb, whether one adopts a one-clause or multi-clause analysis. In fact the term *auxiliary* is a misnomer and obscures the identity between a finite verb used with a particle and one used on its own (compare (7.3) and (7.5) above). Evidence that this finite verb has usurped the dependents of any particles used with it has been presented in points (e),(f) and (g). It is most obvious in the placing of complements of the particle in positions normal for complements of the auxiliary and in the hosting by the auxiliary of the bound pronominal complements of the particle.

Australianists usually analyse auxiliary-plus-particle constructions as uni-clausal, but they describe the auxiliary and the particle as being constituents of a verb complex. The difficulty with the notion of a 'verb complex' is that it does not place the particle in a position to govern its dependents. In a variety of theories it is accepted that government exists only between the head of a construction and its dependent sisters. If the particle is within a verb complex, it is not in a position (literally) to govern its dependents. This is illustrated in (7.15) which presents the structure of (7.9) with the auxiliary and particle as constituents of a verb complex. The question of which constituent of the verb complex is the head has been ignored since it has no bearing on the point.

(7.15)



'We ate the meat sitting down.'

Clearly the presence of *awa* is determined by *tyakal*, but *tyakal* is not the head of the construction in which *awa* occurs. One could try to get around this by amalgamating the auxiliary and particle on the VC node, but the solution needs to cope with discontinuity between the auxiliary and any associated particles.

To put this in perspective I should add that I would suggest a similar analysis for auxiliary-plus-participle constructions in the Romance languages where phenomena parallel to those cited from Maranungku can be found. In Italian for instance the auxiliary and participle can be separated (at least by certain adverbs) *È già venuta* 'She's already come'; clitics dependent on the participle precede the auxiliary *Glielo hai dato*? 'You've given it to him?' (where *glie-lo* is 'to:him' plus 'it'), and objects dependent on the participle can freely precede the auxiliary *Roma hai vista*? 'Rome you have seen?'. There are also unions involving infinitives. 'I can see it' can be *Posso vederlo* or *Lo posso vedere* with the clitic object of *vedere* preposed to *potere* 'to be able'. A Clause Union analysis is also appropriate for at least some of the multi-verb constructions described as serial verb or co-verb constructions in the literature.

7.2.2 *Alawa, Mara and Warndarang*

In Alawa, Mara and Warndarang, three closely related languages of the western coast of the Gulf of Carpentaria, the evidence suggests that the particle and auxiliary may form a single word. Consider the following:

(a) the order is consistently particle-auxiliary

(b) the particle and auxiliary are united phonologically to a degree. For example, in Alawa (Sharpe 1972:49) if the particle ends in a stop or nasal and the auxiliary begins with a vowel or glide, hardening occurs at the beginning of the auxiliary: *y* -> t^y, *w* -> *k*, *o* -> *k*. Compare, for example, *mal + yala* 'you are climbing', t^y*um+*t^y*ala* 'you are going down'. In Warndarang (Heath 1980b:10, 14, 57)

similar stop insertion occurs between particle and auxiliary, but certain rules that operate over morpheme boundaries do not apply. Heath therefore recognises a + boundary, intermediate between morpheme boundary and word boundary. The same applies in Mara (Heath 1981:21-22).

(c) In Mara and Warndarang the particle and auxiliary are morphologically united in that certain prefixes occur on the particle that operate in conjunction with prefixes on the auxiliary. In Warndarang, for instance, *ma-* is prefixed to the particle to show that a pronoun of the object series, prefixed to the auxiliary, is to be interpreted as referring to a beneficiary rather than to a patient (Heath 1980b: 60; see also the analogous Mara example (4.37)).

(7.16) *ma-rang + ngarra-ganyi*
ben-kill + he:me-aux
'He killed it for me.'

Without *ma-* (7.16) would mean 'He killed me'.

(d) Sharpe (1976b:714) notes that her main informant would refer to verb particle-auxiliary complex as one word.

The particle-plus-auxiliary combinations can be analysed as compounds or in terms of Clause Union. They are intermediate between the combinations illustrated from Maranungku and those where the auxiliary and particle have become fused into a single word (e.g. in Kuniyanti).

7.2.3 *Summary*

Auxiliary-plus-particle constructions range from the type illustrated from Maranungku where the relationship between the two words seems quite loose (variable order, possibility of intrusion between them) to the type illustrated from Alawa, Mara and Warndarang where the auxiliary and particle are perhaps compounded. However, even in the Maranungku type there is evidence of some kind of syntactic amalgamation.

One would assume that where compound verbs occur these grew out of earlier structures with separate words. The following comparison of a Maranungku clause and its equivalent in another Daly River language, Brinken (Marithiel dialect), supports the assumption. One can see the elements *nga-*, *-la*, *kat* and *ayi* separate in Maranungku but discernible within a single word in Brinken (Tryon 1970:30, 1976:682),

(7.17) Maranungku

yimin^{y}	*ka-nga-la*	*kat*	*ayi*
wood	nonfut-I-cut	chop	past

'I chopped the wood.'

(7.18) Brinken (Marithiel)

thawur	*ngi-l-kit-a*
wood	I-cut-chop-past

'I chopped the wood.'

Among the prefixing languages there tends to be some complementarity between languages with auxiliaries and those with compounds though the two possibilities are not mutually exclusive. Nunggubuyu and Gunwinggu employ compounds but not auxiliaries, as opposed to the languages like Maranungku which make little use of compounds.

Malak-Malak, a Daly River language that on the whole is structurally similar to Maranungku, makes quite a lot of use of compounds as well as auxiliaries (Birk 1976:97),

(7.19)	*tik-ka*	back-come	come back
	tik-tat	back-look	look back
	wa-tik-pi	pick:up-back-go	take back

These compounds serve as particles as illustrated in the following (ibid.:165),

(7.20)

tyakat-tik-pi	*yi-ta*	*mapara*	*yi-miny-no*	*ey*	
run-back-go	he-aux	follow	he-aux-him	shoot	
yu-yuwa					
he-aux					

'He ran back (and) followed him (and) shot him.'

Note in this last example and in some of the Maranungku examples the tendency for one finite verb in the Aboriginal to correspond to one finite verb in English. This reflects the fact that auxiliary-particle unions tend to reflect actions conceived of as complex wholes as opposed to separate actions in sequence.

7.3 Participles and Finite Verbs

In some languages a form of the verb with non-finite inflection is used in conjunction with a finite inflected verb. The non-finite form is often referred to as a participle on the basis of its use in subordinate clauses translating the English present participle, e.g. ***Seeing such waste, I became angry*** (see section 8.2.5). Languages exhibiting this feature include Diyari, Ngamini and Midhaga, and some dialects of the Western Desert language.

7.3.1 *Diyari*

In Diyari, a language of South Australia (Austin 1981a), a lexical verb may optionally be followed by a second verb that adds some further qualification, and there is a third option, that of a meaningless verb. A non-final verb in such a sequence takes participial inflection (but with some auxiliaries future/purpose inflection) while the final verb takes the full range in inflection (though auxiliaries do not take a full range of tenses since the auxiliary itself expresses a particular tense). The schema for the verb (omitting one or two complications) is as follows:

(7.21)

lexical verb	*adverbial verb*	*meaningless auxiliary*
open class	closed class 10 members	closed class 6 members

The verbs of the adverbial class are, with one exception, also members of the open lexical class. They are intransitive and include verbs for 'go up', 'go down', 'sit', and 'stand'.

The verbs of the 'meaningless auxiliary' class can be said to be homophonous with verbs of the open class. For example, there is a verb ***wara*** 'to throw' in the open lexical class and a verb ***wara*** in the auxiliary class. The auxiliary ***wara*** occurs with present tense inflection following a lexical verb in participial form and indicates 'immediate past'.

The following examples illustrate the system. In (7.22) we have a lexical verb only. It is the final verb of the schema given above in (7.21), so it takes tense inflection. (Austin 1981a:239.)

(7.22) ***kardi-yali*** ***wama*** ***dukara-yi***
sis's:hus-erg snake take:out-pres
'The brother-in-law took out some carpet snake (from the fire).'

In (7.23) there are two verb words. The lexical verb being non-final takes the participial suffix ***-rna*** and the auxiliary takes tense inflection. This particular lexical verb ***ngama*** is one of the ten that can appear as an adverbial verb (ibid.:90).

(7.23) ***thana*** ***ngama-rna*** ***wapa-yi*** ***mitha*** ***muya-nhi***
they sit-part aux-pres country dry-loc
'They live in the dry country.'

In the next example we find a lexical verb and an adverbial verb (ibid.:99)

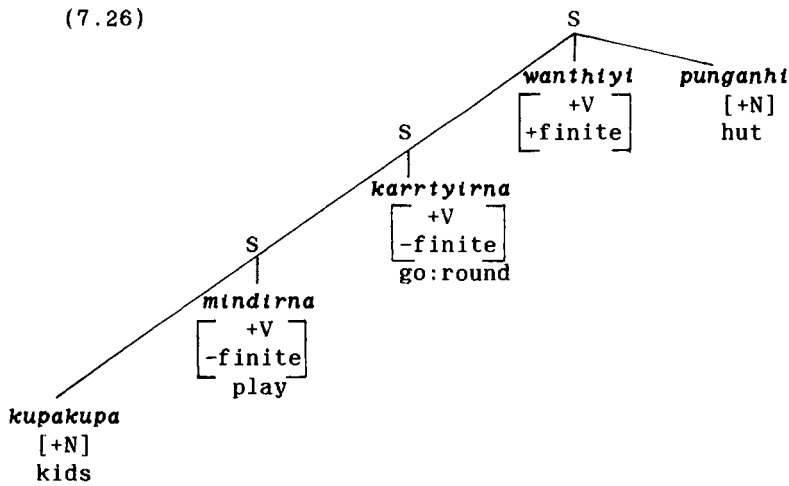
(7.24) *puluka thana thurrara-rna tharrka-yi*
cattle they sleep-part stand-pres
'Cattle sleep standing up.'

And in the last example of this set we have all three positions of the schema filled (ibid.:99),

(7.25) *kupa-kupa mindi-rna karrtyi-rna*
child-child run-part go:round-part
wanthi-yi punga-nhi
aux-pres hut-loc
'The children ran round the hut.'

Diyari is a predominantly subject-object-verb language and the verb sequences in examples (7.23) to (7.25) look very much like left branching structures where the tensed verb is the superordinate one with the participial ones appearing as subordinates to the left. For example, (7.25) suggests a structure like the following,

(7.26)



Such a structure fits the subject-object-verb pattern. The verb is final in each clause with its complement clause to the left, which explains the sequence of verbs and the inflection on the final one. Moreover, the participial inflection is one that specifically indicates 'same subject' when used in what are unambiguously separate participial or relative clauses. However, there are a few problems. First of all there is the problem of accounting for occasional sentences like the following where an argument of the lexical verb appears after the auxiliary (ibid.:247) (Note also the

position of *punganhi* in (7.25)).

(7.27) *kirra* *mani-rna* *wanthi-yi* *pula-li*
boomerang get-part aux-pres they:two-erg
'They got a boomerang.'

And there is the further difficulty of accounting for the fact that when an interrogative verb is used and is put at the beginning of the sentence the auxiliary 'follows it' (ibid.:247) leaving in some cases both subject and object separated from their apparent governor.

(7.28) *minha-nganka-rna* *wanthi-yi* *kaku-yali*
what-cause-part aux-pres sis-erg
kardi-yali *yinha*
s's:hus-erg you:acc
'What did (our) elder sister and brother-in-law do to you?'

If we adopt a Clause Union analysis, both these problems can be handled. In (7.27) *pulali*, along with *kirra*, will become an argument of *wanthiyi* and both will be placed with respect to *wanthiyi*. In (7.28) *minhangankarna* will be placed first by a linearization rule of a very familiar type: put the focus first (see chapter nine). The position of *wanthiyi* can be accounted for indirectly in terms of a general rule that places a participial verb (that has lost its dependents) immediately to the left of the inflected auxiliary.

7.3.2 *Western Desert*

In Diyari the non-initial verbs in a 'verb cluster' add some kind of modification, whether it be of stance (7.24), or motion (7.25), or tense. In various dialects of the Western Desert language, one often finds that the verbs retain their lexical meanings and that there is no sense of one verb modifying the other, as in the following example from Yankunytjatjara (Goddard 1983:203),

(7.29) *paluru* *nyiinyii* *yanku-la* *urra-rnu*
she:erg zebra:finch:acc go-part get-past
'She went and got zebra finch (droppings).'

Goddard states that the verb cluster presents a single 'compound action' and he contrasts (7.29) with (7.30) where two separate clauses are used. Note that the same suffix is used on *yanku*. It signifies a subordinate verb with the same subject as a verb marked for tense, etc. irrespective of whether there is one clause as in (7.29) or two as in (7.30). It is analogous to *-rna* in the Diyari examples.

(7.30) *paluru yanku-la, nyiinyii urra-rnu*
she:erg go-part zebra:finch get-past
'Having gone, she got zebra finch (droppings).'

Glass, commenting on verb clusters involving the participial form in the Ngaanyatjarra dialect of Western Desert, states that the cluster refers to consecutive or simultaneous actions and that the participial verb is backgrounded with respect to the tense-marked one, the syntactic subordination apparently indicating pragmatic subordination. Participial clusters are contrasted with clusters of tense-marked verbs (see next section) where the verbs in the cluster have equal focus. Glass presents (7.31) and claims that a native speaker found the use of a cluster with two tense-marked verbs an unacceptable alternative, because climbing on is a necessary adjunct to speeding away and it is difficult to conceive of a reason to put equal focus on the climbing on (Glass 1983:11-12).

(7.31) *ka-latyu tati-ra makukurraa-rnu*
and-we climb-part run:away-past
'And we having climbed on, sped away.'

In Yankunytjatjara certain verbs do function semantically as modifiers when used as the finite member of a participial cluster. The verb *warna-l* 'to follow' depicts action carried out following something or done along a certain path. Here there is a clear connection between the lexical meaning of the verb and its meaning in clusters. *Nyina*, however, which means to 'sit' indicates customary aspect when used as the finite member of a cluster (Goddard 1983:207),

(7.32) *wati-ngku karli atu-rra nyina-nyi*
man-erg boomerang chop-part sit-pres
'The man makes boomerangs.'

The verb *warni* 'to throw' when used in a cluster indicates scattered activity.

(7.33) *nyina-rra warni-nyi*
sit-part throw-pres
'Sitting around the place.'

Although one can see a connection between scattered activity and throwing, it is interesting to note that verbs for throwing often appear with a derived sense or function in Australian languages, but not always the same sense or function:

Diyari	***warra*** 'to throw' > immediate past
Arabana-Wangganguru	***dhawi*** 'to throw' > rapid action
Ngamini	***warra*** 'to throw' > past tense
Mangarayi	***war-*** 'to throw' > auxiliary used with verbs of manual manipulation

In languages outside Australia verbs of throwing are also found as markers of past tense or perfect aspect. If one considers the sense of 'throw away' as opposed to 'throw', these derivative usages make sense.

7.4 More Than One Inflected Verb

In a number of widely scattered languages, mostly Pama-Nyungan, one finds two or more verbs juxtaposed, each with finite inflection.[3] This phenomenon occurs, for instance, in Djapu, Yukulta, Ngaanyatjarra and several languages of northeast Queensland, namely Dyirbal, Yidin^{y}, Wargamay and Nyawaygi. The following example is from Djapu (Morphy: 1983:90),

(7.34) ***marrtyi-0 bardatyu-n-warray wutthu-n***
go-unm fail-unm-really hit-unm
'(He) kept trying to hit (it) [with the car] and just missed.'

The inflection in (7.34) is the unm(arked) one, which is neutral with respect to tense, aspect and mood. In Djapu it is possible to distinguish a main verb on semantic grounds. In (7.34) this is ***wutthu***. The other verb or verbs in the group must be drawn from one of two restricted sets, 'adverbial' verbs like ***bardatyu*** or aspectual verbs like ***marrtyi***.

With a sequence of verbs like this the question naturally arises of whether we have a sequence of clauses as in *It **spat, scratched and clawed*** or some kind of verb grouping. Morphy (ibid.:91) gives four criteria that distinguish a 'verb complex' from a sequence of verbs:

(a) In a verb sequence there are no restrictions on which verbs can co-occur (cf. remarks above).

(b) Verbs in a complex have simultaneous reference to a single action whereas verbs in sequence refer to successive actions.

(c) Aspectual verbs in complexes do not carry their full lexical meaning, thus (7.35) can not be translated 'a house lies and stands (there)',

(7.35) *bala yukurra-0 dharra-0*
house lie stand
'A house is standing there.'

(d) In a verb complex the main verb controls the case of the complements whereas in a sequence the first verb has this control.

The main verb in the complex usually comes last but there is some flexibility. This suggests that a Clause Union analysis would be preferable to a compound one.

Verb complexes with two or more inflected verbs are common in Ngaanyatjarra and one verb in each complex is usually a verb of motion as in the following (Glass 1983:6).

(7.37) *...pula kuttya-ngu parraputa-ranytya*
ant:hill go-past:perf playfully:spear-past:imperf
'...and went and were playfully spearing ant-hills.'

This example is interesting in that *pula* 'ant-hill' is separated by an intransitive verb from the transitive verb that we would expect to be its governor on semantic grounds. This means that we cannot posit separate clauses unless we take *pula* to have been moved out of its clause. Since movement out of unambiguously separate clauses is not common, the frequent occurrence of sequences like the one illustrated in (7.37) suggests that the verbs are united in some way (cf. discussion of (7.9).

Note that the verbs in the complex do not have to have the same aspect, but they must have the same tense/mood.

In some Queensland languages the verbs in the complex must match in transitivity and derivational affixes such as the causative or reflexive are used to alter transitivity, the transitivity of the modifying verb it would appear. In the following example from Yidin[9] (Dixon 1977) the 'adverbial verb' *warrnggi-n* 'to do all around' has been transitivised with *-ngay* (see also (4.26), (4.36)) to match the lexical verb.

(7.38) *ngayu dyugi warrnggi-ngal-nyu gundaal*
I tree do:all:round-tr-past cut:past
'I cut all round [the trunk of the] tree.'

This transitivity matching seems to be a feature of languages with rules of coreference based on the absolutive (see section 8.3.2); not that the transitivity matching effects such coreference, after all in (7.38) it involves A-A coreference. What it does do is prevent A and S being paired in a complex.

7.5 Auxiliary Particles

In languages like Warlpiri (Hale 1973), Walmatjari and Kalkatungu there is in certain tenses and aspects an auxiliary particle carrying marking for the person and number of the subject and object (and certain other complements in the case of Warlpiri see (6.7), (6.15), (6.16)). Different particles signify different tenses, aspects or moods, but there is also inflection on the verb for these categories. Since the auxiliary particles have some characteristics normally associated with verbs (hosting subject, etc. marking and signifying tense, etc.), the question of whether they are main verbs arises. However, I think it is clear that they are not, rather they are dependents within their clauses. They cannot appear on their own as the sole verb form of a clause. Consider the following example from Kalkatungu,

(7.39)	*a-ni* *nuwa?*	*a-kin* *nuwa?*
	aux-you see	aux-you see
	'Do you want to see him?'	'He wants to see you?'

Here the auxiliary particle *a-* signifies future/purposive/desiderative aspect. One cannot use forms like *ani* or *akin* on their own, not even as representative of elliptical clauses as far as I know. In Kalkatungu a given auxiliary particle has a fixed position either immediately before or immediately after the verb, but in Warlpiri the auxiliary particle usually follows the first constituent and may be at some remove from the verb. In the present work ***auxiliary particles*** are distinguished from ***auxiliaries*** as in Maranungku though both are glossed as ***aux***.

7.6 Conclusion

Apart from sentences containing more than one clause there are clauses containing more than one verb. We find either a finite verb with a non-finite dependent (verb particle or participial form) or a number of finite verbs apparently in parallel. This analysis suggested here involves taking one verb to be the main verb. This verb governs the other verb or verbs and it takes over their dependents and governs them directly. One could perhaps suggest alternative analyses, but one must recognize an opposition between relatively close-knit constructions and looser constructions, the former expressing an event that is seen as a whole rather than as a series of separate events.

NOTES

1. Further information on the distribution of these types, especially types (a) and (b), and also of verbs with compound stems, appears in Capell 1976 and Capell 1979.

2. Pama-Nyungan languages with auxiliaries and verb particles include Djaru and Warlpiri.

3. I am using finite in the sense of a verb that can take a subject. Finite verbs normally take the full range of inflection for tense, aspect and mood. See also note 3 to chapter eight.

Chapter eight

LINKING CLAUSES

8.1 Introduction

Chapter seven dealt with the linking of verbs within a single clause; this chapter deals with the linking of separate clauses. Perhaps the most notable feature of clause linking in Australian languages is the widespread use of one type of subordinate clause for both adnominal and adverbial functions. A single formal type may correspond to the relative clauses, participial clauses and adverbial clauses of a language like English.

Subordinate clauses may be finite or non-finite and where a specialised function is indicated it is most often marked by a suffix on the subordinate verb, finite or nonfinite. The marker is usually identifiable as a case marker on comparative-historical grounds if not on internal-synchronic grounds.

Markers indicating whether subordinate subjects are the same as or different from main subject (*switch reference* markers) are widespread, while a handful of eastern Pama-Nyungan languages have rules that refer to the absolutive.

A given language will have from one to half a dozen formally different types of subordinate clause.

8.2 Clause Linking Devices

8.2.1 *Intonation*

Successive clauses in discourse that are semantically linked by virtue of expressing for instance a contrast or a consequence may be bound together intonationally. This is commonly found in comparisons as in the following example from Bidyara (Breen 1973:46),

(8.1) *ngaya guligin^{y}, yinda-bu galamugin^{y}*
I old you-emph little
'I'm older than you.'

Grammars of Australian languages often present 'lest' clauses as a type of subordinate clause. These are clauses translating the second clause in examples like the following: *Don't swim there; you might drown. Don't climb that tree, lest you fall. Stay here lest you get caught in the rain.* The following examples are from Diyari (Austin 1981:226).

(8.2)a. *wata nganhi wapa-yi, karna-li nganha*
not I go-pres person-erg me:acc
nhayi-yathi
see-lest
'I'm not going in case someone sees me.'

b. *marna ngudunganka-0-mayi, munytyu widi-yathi*
door close-imp-emphatic fly enter-lest
'Close the door or the flies will come in.'

The 'lest' clause refers to something that might happen, something that is harmful or unpleasant and which is therefore to be avoided or prevented. Typically the 'lest' suffix appears in what looks like a complex sentence as is the case in (8.2). However, although the 'lest' clause is semantically subordinate there is sometimes no evidence that it is syntactically subordinate. Usually, in fact, one finds that the 'lest' clause can occur on its own. Indeed this is the situation in Diyari (ibid.:229).

(8.3) *nhu-luka kinhthala-li yina-nha matha-yathi*
he-erg dog-erg you-acc bite-lest
'This dog might bite you.'

This sentence must be interpreted as a warning not just as a statement about a possible occurrence. Austin states that sentences like these 'may be regarded as structurally subordinate because it is always POSSIBLE to add a main clause before them, although context may make it unnecessary'. However, I take lest clauses to be structurally independent. In Diyari there is a switch reference principle (explained below in section 8.3) that operates over the clauses of a complex sentence. Significantly it does not operate in 'complex' *lest* sentences like (8.2). 'Lest' clauses may be linked to other clauses intonationally (e.g. by suspending the falling intonation at the end of the first clause in a linked pair) or they may remain unlinked in the expression system.

8.2.2 *Co-ordinators*

Successive clauses may be linked by the use of a co-ordinating word or enclitic. A co-ordinating form is a linking form that does not mark a clause as being an adjunct or complement of another. The use of a co-ordinator presupposes a

prior utterance in the discourse and hence clauses bearing such forms are not completely independent. However, they need have no features of subordination save the co-ordinator, though in practice co-ordinated clauses typically involve ellipsis and anaphoric forms (see next section). Here are some of the forms that have been reported as conjunctive co-ordinators. It should be noted, however, than some do not all correspond directly to English *and* but in some cases to *then*, *also*, or *furthermore*:

Diyari	*ya*	
Kalkatungu	*=yana*	
Mangarayi	*wardid*^{y}	(also, furthermore)
Garawa	*marda*	(also, then)
Warluwara	*karra*	(and, more, another)
Alawa	*adapurrki-yunu*	(after that)
Lardil	*pana*	(and, also)

There are normally no syntactic constraints on co-ordination, but in some dialects of the Western Desert language there are separate co-ordinating conjunctions for same-subject clauses and different-subject clauses (see (8.37) and (8.38) below).

Adversative co-ordinators are reported from some languages (e.g. Alawa *dya* 'but') and disjunctive ones too (e.g. Diyari *kara*).

8.2.3 *Phoric Forms*

All languages allow one to make reference with various degrees of elaboration. In discourse one does not give complete specification of entities at every mention. Typically a noun or qualified noun will be used at one point and then some less specific form will be used over a following stretch of discourse. Where a form refers back to a previously specified entity it is called *anaphoric* ('up bearing' or 'back bearing') and where we have the less common situation of the less specific form being used in anticipation of a more specific one we call the former *cataphoric* ('down bearing') as in *When she opened the cupboard, Mary found the meat was off*.

Australian languages sometimes use their ordinary third person pronouns or their deictics phoricaly, but often there are special phoric or discourse referring forms. In Djapu, for instance, there are three deictic demonstratives (*dhuwal* 'this', *dhuwali* 'that' and *ngunha* 'yon') and a separate form largely reserved for discourse (*ngunhi*) (Morphy 1983:57), similarly in Ngandi (Heath 1978a:59). In Gunwinggu, there is a series of four pronominal forms each one corresponding with one of the four noun classes and containing a common second element that Carroll (1976:104)

identifies as the subordinating particle *bu* illustrated in (8.13) below. The forms are *nawu, ngalbu, kunu* and *manbu*. They tend to be reserved for discourse reference and they are frequently used like the relative pronouns of English, referring back to a noun (and its dependents) or a verb (and its dependents). In the following example *nawu* refers back to *binin*^{y} which noun is repeated along with *nawu* perhaps for clarity or contrast (Oates 1964:91)

(8.4) *...bi-nang binin*^{y} *...dya bi-marne-yimeng*
he:him-saw man and he:him-advan-said
'Nyalega yi-m-wam?' *Galug nawu*
why you-hither-went then he
binin^{y} *yimeng...*
man said
'...he (the devil) saw the man and he said to him, 'Why did you come here?' Then this man said...'

The Gunwinggu phoric pronouns highlight the generic nature of third person pronouns, each one standing for a class of nouns. The ultimate generic is zero which in a nominal slot stands for any noun. Zero anaphora is common in Aboriginal Australia as in the following example from Bidyara where the subject of the second verb is not expressed and is understood to be the same as the subject of the first verb (Breen 1973:45, 92)

(8.5) *baga ngaya mara-la, munda guni-nga*
stick I get-past snake hit-fut
'I've got a stick to kill the snake.'

This syntagmatic zero needs to be distinguished from the use of a paradigmatic zero for third person singular and from the ellipsis of a free pronoun where a bound one is used.

8.2.4 *Subordinating Form*

In some languages a free particle, enclitic or affix is used to mark a clause as 'defocused' or subordinate. In the following examples from Ngandi, the noninitial verb prefix *-ga-* (glossed as sub(ordinate)) performs this function (Heath 1978a:123-5),

(8.6) *...barru-ga-dul?* *ba-ga-bu?dhu-ngi*
they:it-sub-light they-sub-blow-past:cont
gu-dya-dul?dhu-ngi
GU-then-catch-past:cont
'When they lit it and blew (on it), it caught (fire).

(8.7) *malkalityung barru-yaw ṇi-gung-gi*
sometimes they:him-spear NI-honey-loc
ṇi-ga-dho-ni
he-sub-chop-pres
'Sometimes they spear him when he is cutting down bee hives.

One of the differences between co-ordination and subordination is that subordination is a relation between a pair of clauses whereas co-ordination can involve more than two. In (8.6) the first clause is subordinate to the third and the second is subordinate to the third. There is no syntactic relationship between the first and second clauses.

The prefix *-ga-* also occurs in single-verb sentences where it signifies that the verb is defocused with respect to a constituent that is thereby focused.

(8.8) *a-dyenyung barra-ga-yawdhu-ngi*
A-fish they:it-sub-spear-past:cont
'It was fish that they speared.'

The use of *defocusing* forms has been reported from a number of languages including Rembarnga and Ngalakan. In Mara and Warndarang *focusing* particles are used to focus an initial word or phrase with respect to the remainder of a clause or focus one clause with respect to a following one (compare the Djaru examples below).

In Mangarayi the verbal affixes used to mark subordination are the ones that mark irrealis mood. Irrealis present signifies possible occurrence and past irrealis signifies alleged occurrence. The use of irrealis as a subordinating device seems appropriate when one considers that subordinate clauses are backgrounded with reference to main clauses and normally do not contain assertions but present information as given.

The languages cited so far in this subsection are all prefixing languages of Arnhem Land. However, the use of focusing and defocusing forms to subordinate one clause with respect to another is not confined to this area. In Djaru, a Pama-Nyungan language of Western Australia, we find the particle *guwa* (*guya* in some dialects) used to set off a phrase in the initial salient position in the clause (8.9) or to mark off a clause and thereby indicate that a following clause is defocused (Tsunoda 1981:165-171).

(8.9) *balngana-la guwa=nga nyirangura*
Old:Flora:Valley-loc foc-I stayed
ngadyu yambadyi
I child
'At Old Flora Valley, I was a child.'

(8.10) *yambadyi-lu mawun nyangan guwa burnu bayanan*
child-erg man sees foc tree cuts
'A child sees a man while he cuts a tree.'

Tsunoda notes (ibid.:168) that an example like (8.10) can also be translated by a relative clause: ***A child sees a man who cuts a tree***. This is an example of a particular construction being ambivalent between an adverbial and an adnominal interpretation, the latter being possible except when the relevant argument positions are filled by non-coreferential arguments. If an overt A such as *ngarlngga* 'woman' is introduced into the second clause of (8.10), naturally the relative interpretation is ruled out.

Also to be classified here are forms that mark a clause as subordinate, but which are peculiar to that function. Such a form is Bidyara *-yi* which follows tense inflection. A *-yi* clause corresponds to a wide variety of English constructions as is the case with (8.10) and most of the other subordinate clauses described above (Breen 1973:41-44).

(8.11) *widhu wadya-nga-yi, ngali ngalgaa-ningu*
white:man come-fut-sub we:2 talk-contin
'If the white man comes, we'll have a talk.'

(8.12) *ngaya dhagan^{y} yuga-na, ngaya guni-la-yi*
I goanna eat-pres I kill-past-sub
'I'm eating the goanna I killed.'

Among the non-Pama-Nyungan languages of the north it is not uncommon to find clauses introduced by a subordinating conjunction. These clauses are structurally similar to English adverbial clauses. The following example is from Gunwinggu (Kunwinjku) (Carroll 1976:106). The conjunction *bu* marks a clause as subordinate but it does not have a specific lexical meaning. In this instance it corresponds to English *when*.

(8.13) *bu ngaye nga-yawurd-ni, ngandi-marne-yolyolmi*
when I I-small-be me:they-advan-tell:story
'When I was small, they told me stories.'

(8.13) is similar to (8.11) and (8.12) in that the subordinate clause contains a finite tensed verb, but differs in that the subordinator is a conjunction rather than a verbal affix.

Other subordinating conjunctions reported include Alawa: *mal* 'because', *ala* 'so that'; Mangarayi: *warrnggu* 'because' and Tiwi: *karri* 'when'. The range includes forms with a meaning similar to that of certain English conjunctions and forms with a wider, vaguer, general subordinating function such as Tiwi *ngeni* (Osborne 1974:70).

8.2.5 *Tense Neutralising Form*

It is fairly common to find dependent clauses marked by a suffix that neutralises tense distinctions. More often than not the neutralising form is further suffixed by a form indicating a specific function such as purpose. These additional suffixes are described in the next section. The following examples are from Margany where *-ta* usually serves to express a variety of functions without further suffixation (Breen 1981:318).

(8.14) *gamu ngaya mada-lu burdi dhulba-ta*
water I get-purp fire put:out-sub
'I'm going to get water to put out the fire.'

(8.15) *mudga yugan dhanggi-ta*
good rain fall-sub
'It'll be good if it rains.'

(8.16) *inda ganha-ta, nga-tyu mayada nhaa-lu*
you come-sub me-gen sister see-purp
'If you come, you'll see my sister.'

(8.17) *wabaa-laba-nhi nhula bulu dhala-ta*
go-along-pres he food eat-sub
'He's walking along eating.'

8.2.6 *Tense Neutralisation plus Subordinating Form*

Most suffixing languages and several of the prefixing languages have subordinate clauses the verb of which is marked by a tense-neutralising form plus another form usually identifiable as a case suffix which indicates the function of the clause. The tense-neutralising form is usually interpretable as a nominaliser.

The most widespread function expressed by a clause with a nominalised verb plus case is purpose.

The typical arrangement can be illustrated from the Martutjarra Luritja dialect of the Western Desert language where *-nytya* is the nominaliser and *-ku* the dative (Cook 1982).

(8.18) *wati-ngku waru kalarnu, kuka pawu-nytya-ku*
man-erg fire lit meat cook-nom-dat
'The men lit the fire to cook the meat.'

In Luritja and in a number of other languages the same construction is used in indirect commands and in the complement of verbs of wishing,

(8.19) *ngayulu nyurra-nya watyarnu palu-nya*
I you-acc told him-acc
pungku-nytya-ku
hit-nom-dat
'I told you to hit him.'

(8.20) *paluru mukurringanyi kuka kurrkati-ku*
he like meat goanna-dat
yanku-nytya-ku
go-nom-dat
'He likes to go for goannas.'

In Luritja *-nytya* occurs on its own in an adnominal clause where it replaces tense inflection. The particle *panya* (in (8.21)) is glossed by Cook as *focus*. It serves to set the head off from the qualifying clause (compare the forms discussed in section 8.2.4 above).

(8.21) *papa panya wati pati-nytya ngarna*
dog focus man bite-nom bush
tyarta-ngka kumpirnu
thick-loc hid
'The dog that bit the man hid in the bush.'

The fact that *-nytya* and *-ku* occur separately (the latter as a dative case marker) supports an analysis in terms of *-nytya* plus *-ku* rather than one with *-nytyaku* as an unanalysed purposive suffix. However, *-nytyaku* does occur on the verb of single verb sentences taking the normal set of complements as determined by the verb stem (e.g. with ergative for A). On a main verb *-nytyaku* expresses obligation ('must', 'should') or exhortation ('let'..),

(8.22) *nganarna pupanya-la-kutu yanku-nytyaku*
we Papunya-loc-all go-purp(?)
'Let's go to Papunya.'

-nytyaku also occurs in sentences of the following pattern where the analysis must be nom+dat. If *-nytyaku* in (8.23) were simply purposive inflection, we would expect the ergative marker on *nyanga*. (8.23) seems to be parallel to verbless sentences of the pattern N N-dat.

(8.23) *katyi nyanga-tya kuka waka-nytya-ku*
spear this-nom meat pierce-nom-dat
'This spear is for spearing meat.'

The whole set of examples given here for *-nytyaku* can be parallelled in numerous languages. Note that if *-nytyaku* in (8.18), (8.19) and (8.20) is taken as an unanalysable purposive suffix, then the purpose clauses could

be said to lack any formal mark of subordination, since *-nytyaku* occurs on independent verbs as in (8.22).

In Pitta-Pitta there is a suffix *-ka* which is used in place of tense/aspect/mood inflection and to which case suffixes and at least one derivational suffix (*-marru* the *having* suffix) can be added. Where a *-ka* clause modifies a noun, a case suffix may be added to show agreement with the qualified nominal. In (8.24) *-nha* marks the agreement of *patyaka* with *ptyawarlt*. The *-nha* suffix on *takuku* marks that word as 0 of *patya-ka*.

(8.24) *mamaka-ka nga-thu t-nha-ka ptyawarlt-nha*
grab-past I-erg him-acc-here dog-acc
patya-ka-nha takuku-nha
bite-part-acc child-acc
'I grabbed the dog (who)(as he) was biting the kid.'

Also the participial forms (as I shall call them) in *-ka* may take local case marking to signify relative time.

-ka-tnya (ablative) 'After' ..., ...
-ka-tna (locative) 'While' ..., ...
-ka-tnu (allative) 'Until' ..., ...

(8.25) *nhatyt-nha t-nha-ka kathi-nha,*
see-imp the-acc-here meat-acc
karnta-ka-tna nganytya
go-part-loc I
'Watch the meat, while I'm gone.'

-ka is homophonous with the past tense marker *-ka* (which appears in (8.24)) and this is not likely to be coincidental since a common form *-nya* fulfills the same pair of functions in related dialects. In fact when we examine a range of nominalisers we find they are often homophonous with a tense or aspect marker. The use of case suffixes, or forms that can be identified as case suffixes on comparative or historical grounds, to mark clauses as expressing *time when, time after, until, because of* or *purpose* is fairly common in Australia.

It is also quite common for subordinate verb forms consisting of a nominaliser plus case to come to be used as main verb forms and *-nytya-ku* in the Western Desert language affords a good example (see (8.22)). This has also happened in Pitta-Pitta where we find *-kala* as the 'lest' marker on the verb (compare causal *-la*) and *-katnu* as a hortative 'let us...' (compare allative *-tnu* and note the homophonous *-katnu* quoted above). If this line of development is correct, then *-ka* has gone from tense marker to nominaliser and back to being part of the tense order of suffixes.[1]

8.2.7 *Sequence of Tenses*

In some languages there are strategies of tense/aspect/mood choice that operate over groups of clauses (usually pairs). The multi-clause scope of these strategies can be taken as evidence that the clauses involved form a sentence. In the following example from Warluwara each clause is finite and bears irrealis inflection, which can occur on independent verbs. The choice of irrealis mood in the two clauses expresses a hypothetical if-then relation (here a counterfactual one) and is the only evidence of interdependence between the clauses.

(8.26) *yinya* *ngarna* *yang-imarla,* *ngarna* *yinya*
him:acc I:erg see-irrealis I:erg him:acc
math-imarla
hit-irrealis
'If I'd seen him, I would've hit him.'

The interpretation here also relies on iconic sequencing, the first clause being translated as the *if*-clause.

Hale (1976d:79-80) notes that in Warlpiri the relative/~adverbial finite clause is interpretable as a conditional if both main and subordinate verbs are future, potential or irrealis, especially if the subordinate verb is irrealis.

8.2.8 *Distinctive Case Marking Patterns*

A few languages have a distinctive case frame or pattern of case marking in subordinate clauses. In the southern Pilbara languages, for instance, the potential O in a nominal qualifying clause appears in the dative. The following example is from Dhalandji (Austin 1981c:222).

(8.27) *ngatha* *nhaku-nha* *kanyara-nha* *murla-ku*
I(A) see-past man-acc meat-dat
warni-lkitha
cut-rel:diff.subj
'I saw the man cutting meat.'

The subject of the subordinate clause is covert in all the examples available in Austin 1981c and Klokeid 1969 and there appears to be a middle or intransitive construction though there is no antipassive type derivational suffix on the verb; *-lkitha*, glossed as 'relative different subject', marks a qualifying clause the covert subject of which must be interpreted as being distinct from the main clause subject (see also section 8.3.1 below).

In these languages the dative also marks the patient in intentional clauses and in nominalisations (*murla-ku* *pat^{y}alpat^{y}a* 'meat-of eat-er') while the allative has

the corresponding function in purposive clauses in which the subject is to be understood as coreferential with the main clause subject.

In some languages, most notably the Yuulngu languages of north-east Arnhem Land and the Tangkic languages of the Gulf, some subordinate clauses have dependents that agree in case with the verb (Buchanan 1978:174, Schebeck 1976a). In the Gulf language Yukulta a range of subordinate clauses features oblique case marking on the words of the predicate, i.e. on the verb and on its non-subject complements. The following example involves the purposive (Keen 1972:270).

(8.28) *taamitya=ngandi natha-rlu-ngkurlu warra-tyurlu*
ask=I:3s:fut camp-to-purp walk-purp
'I'll ask him to come to the camp.'

This is a general feature of the Tangkic languages, but in the other languages of the group the subordinate pattern of marking has been extended to independent verbs and so one cannot describe the pattern as a distinguishing feature of dependent clauses. This use of formerly dependent constructions as independent ones has played a part in the shift of these languages to a nominative/accusative core case system and is discussed in section 10.4.

8.2.9 *Centre Embedding*

Where one clause is surrounded by another there is evidence that the two are linked, at least where the inner clause is not marked intonationally as being parenthetical. In Australian text material one is struck by the general lack of centre embedding, but it does occur. It is usually confined to non-finite clauses and is not favoured where the clause in question is long. The following example is from Aranda (Breen: pers. comm.)

(8.29) *Newe tyanhe tneme mpware-tyeke lhe-ke*
wife my yamstick make-purp go-past
'My wife went to make a yamstick.'

Here the purpose clause occupies the same place as a nominal in the dative or other oblique case would have occupied.

8.3 Rules Relating to Core Coreference

A number of languages have rules that depend on the coreferentiality of certain core relations across clauses. These rules operate either on the basis of the subject relation (S+A) or the absolutive relation (S+O). They deal with the control of the missing core relation of a non-finite verb, switch reference, and restrictions on the head of an

adnominal non-finite clause. These rules in their scope and their marking have a clause linking function like the devices listed in the previous section.

8.3.1 *Rules Based on Subject*

Austin (1981b) has shown that a great bloc of suffixing languages employ a system of *switch-reference* which involves marking the verb of a subordinate clause to show whether the subject is the same as or different from the subject of the main clause. The following examples are from Diyari where *-lha* marks the verb of a purposive clause that has the same subject as its governing clause and *-rnanhthu* marks a purposive verb that has a different subject from its governing clause (Austin 1981a:189ff, see also 1981b).

(8.30) *nga-thu nganytya-yi wapa-lha*
I-erg want-pres go-purp:same:subj
'I want to go.'

(8.31) *nhawu ngarda-nhi mindi-yi wakada nhinha*
he behind-loc run-pres neck:acc him:acc
nanda-lha
hit-purp:same:subj
'He ran behind and hit him on the neck.'

(8.32) *nga-thu pulu karna mani-yi mutuka-mara*
I-erg cannot person get-pres car-having
pardaka-rnanhthu nha(n)-nha
take-purp:diff:subj her-acc
'I can't get anyone with a car to take her.'

(8.33) *karna-li marda matha-rna warrayi*
man-erg stone:acc bite-part aux-pres
thalara kurda-rnanhthu
rain fall-purp:diff:subj
'The man bit the stone so the rain would fall.'

In some dialects of the Western Desert language two different types of purpose clause are found. One type tends to be used where the subject of the purpose clause is not the same as the subject of the governing clause and the other type is used where the purposive verb is understood to have the same subject as the governing verb. The following examples are from the Warburton Ranges dialect (Douglas 1964: 115). The suffix *-tyaku* is used for different subject (compare (8.18) above from Luritja where *-nytyaku* was used for same subject) and *-kitya* for same subject. The form *-kitya* marks a nonfinite purposive verb which shows agreement with the subject of the main verb, i.e. it is suffixed with ergative *-lu* when the main verb is transitive and

and can therefore be said to be suffixed with nominative -0 where the main predication is intransitive.

(8.34) *wati nyarra-lu kurlarta kati-ngu ngayulu*
man that-erg spear bring-past I
nyaku-tyaku
see-purp
'That man brought the spear so I could see it.'

(8.35) *palunya-nya kuti-pitya-ngu lankurru-0*
he-nom away-go-past spear:thrower-acc
palyal-kitya-0
make-intentive-nom
'He went away to make a spear-thrower.'

(8.36) *wati nyarra-lu kupurlu manytyi-nu tyityi*
man that-erg waddy pick:up-past child
pungku-kitya-lu
hit-intentive-erg
'That man picked up a waddy to hit the child.'

Some Western Desert dialects are unique within Australia in having different co-ordinating conjunctions for same-subject and different subject. In Yankunytjatjara, for instance, *munu* links clauses with the same subject and *kaa* links clauses with different subjects (Goddard 1983:264ff),

(8.37) *wati-ngku papa pu-ngu munu mirra-ngu*
man-erg dog hit-past and cry:out-past
'The man hit the dog and (he) cried out.'

(8.38) *wati-ngku papa pu-ngu kaa mirra-ngu*
'The man hit the dog and it cried out.'

As Goddard explains the same-subject function of *munu* is connected with its function as a noun co-ordinator and the different-subject function of *kaa* stems from its use as a marker of contrast or surprising development.

Non-finite verbs are quite common in Australian languages and these involve the subject relation insofar as it is S and A that cannot be overtly expressed. This is perhaps unremarkable in languages where the morphology makes a subject-object distinction, but it is SA that must be covert with nonfinite verbs in most languages where the morphology identifies O with S or where it makes a tripartite S/A/O distinction (the exceptions appear in the next section).

In some constructions the covert subject is uncontrolled (to be supplied from the context) and in others it is controlled. In Warlpiri, for instance, the missing subject of complements in *-(rni)nytya-kurra* is controlled by the O of the governing clause (Hale 1968:3),

(8.39)a. *ngarrka-ngku* *kurdu* *nyangu* *warna*
man-erg child saw snake
kati-rninytya-kurra
tread-nom-comp
'A man saw a child step on a snake.'

b. *ngarrka-ngku* *kurdu* *nyangu*
man-erg child saw
parnka-n^{y}t^{y}a-kurra
run-nom-comp
'A man saw a child run.'

8.3.2 *Rules Based on Absolutive*

A handful of eastern Pama-Nyungan languages have inter-clause rules based on the absolutive. Dyirbal is the best known example, but several north-east Queensland languages share this feature (Yidin^{y}, Warungu, Nyawaygi, Wargamay and Tyaapukay) as do Kalkatungu and Yalarnnga in north-west Queensland and Bandjalang in south-east Queensland. Dyirbal has two kinds of rule that are sensitive to the absolutive. In purpose clauses, for instance, the anti-passive is used to detransitivise the clause where A is co-referent with the absolutive of the governing clause. In adnominal clauses (which correspond to English relative and participial clauses) there is a requirement that the head be absolutive.[2]

The following examples illustrate the requirement that the absolute be head in Kalkatungu in what I call participial clauses, where the verb is marked by a nominalising suffix *-nyin*. In (8.40) the covert head of the participial clause is S and in (8.42) it is O so in neither case is the anti-passive necessary. In (8.41), however, the head is potentially A so the detransitivising anti-passive derivation is employed so that it appears, covertly, as S.

(8.40) *nanya* *nga-thu* *kalpin* *ngartathati-nyin*
saw I-erg man sit-participle
'I saw the man sitting down.'

(8.41) *nanya* *nga-thu* *kalpin* *thuku-u* *tha-yi-nyin*
saw I-erg man dog-dat hit-ap-part
'I saw the man hitting the dog.'

(8.42) *nanya* *nga-thu* *kalpin* *thuku-yu* *ityа-nyin*
saw I-erg man dog-erg bite-part
'I saw the man being bitten by the dog.'

The suffix *-nyin* is a nominalising one in that it can be followed by case suffixes showing the agreement of the *-nyin* verb with a particular nominal. In (8.40) to (8.42) *-nyin* is in fact followed by an absolutive zero as can be

seen from a comparison with (8.43) where the *-nyin* clause qualifies an allative nominal and consequently takes the allative case.

(8.43) *ngayi ingka kalpin-kunha tyurtu-ngku*
I go man-all car-erg
ntati-tyin-kunha
tread:on-part-all
'I went over to the man who had been run over by a car.'

The next set of examples is from Yalarnnga and illustrates the use of the anti-passive in purpose clauses where A co-references the absolutive of the governing clause. In (8.44) the A of *pirnpa* co-references the S of *ngani* so *pirnpa* is converted into the intransitive *pirnpa-li*. Similarly in (8.45) the A of *miya* is coreferential with the O of *ngapa* so *miya* is converted to *miya-li*. In (8.46) the A of *ngathi* coreferences the A of *miya* so no anti-passive is required.

(8.44) *karlu ngali ngani-mu wartatyi-wu*
father we:2 go-past orange-dat
pirnpa-li-(ny)tyarta
fetch-ap-purp
'My father and I went to get some wild oranges.'

(8.45) *nga-thu ngapa-mu waya pirlapirla*
I-erg tell-past that child
pulytyuru-wu miya-li-nytyarta
chip-dat get-ap-purp
'I told that kid to pick up the chips.'

(8.46) *nga-thu miya-nytyarta yimarta*
I-erg get-purp fish
ngathi-nytyarta
cook-purp
'I will get some fish to cook.'

Where the A of the purpose clause is co-referential with a peripheral complement or adjunct or bears no co-reference with any actant in the governing clause, then, as in (8.46), no anti-passive is used.

Rules that require the head of a relative clause to be absolutive obviously refer to the surface absolutive. However, rules of the type found in purpose clauses where detransitivisation is required when A coreferences the absolutive involve the deep or underlying absolutive. Dixon (1972: 75) gives an example from Dyirbal which goes as follows, with each clause on a separate line,