NGAN'GITYEMERRI

A language of the Daly River region
Northern Territory of Australia

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Abstract

This thesis is a study of Ngan'gityemerri, a language spoken primarily in and around the two communities of Nauiyu Nambiyu and Peppimenarti in the Northern Territory.

Chapter One provides an introduction to the names by which speakers of this language have been referred to, comments on the relationship between the two dialects, and establishes my use of the term Ngan'gityemerri as a language name. Also included in this chapter is a brief account of the history of these people since European invasion of their country began late last century, some comments on social organisation, cultural affiliations, Wangga and Lirrga songstyles, and a description of their country. The current status of the language is reviewed, and the language variety presented in this work is clearly identified. A survey of previous work on Ngan'gityemerri, and a description of my fieldwork methodology are additionally included.

Chapter Two presents the segmental phonology, phonotactics, stress patterns and morphophonological processes. Particular attention, in the form of a detailed acoustic study, is given to the mechanism by which the contrast between two series of stops is maintained.

Chapter Three presents an overview of 'simple' and 'complex' verb structures, then identifies the morphological make-up of the verbal elements labelled 'auxiliary' and 'complex verb stem'. The mechanisms that interact to mark categories of tense, aspect and mood, namely auxiliary root inflection, verbal enclitics, verb root reduplication and the serialisation of posture/motion auxiliaries, are all addressed in this chapter. The incorporation into the verb of bodypart noun roots is also investigated here. A distinction between 'lexical' and 'syntactic' incorporation is invoked, and the differences in the effect of both these types of incorporation is dealt with. A list of incorporable terms is presented, and their literal and classificatory semantics explored.

Chapter Four investigates the semantic contribution that the auxiliary makes to the meaning of a full verb. The 31 auxiliaries are broken down into six groups on the basis of their functional roles, which are described in detail.

Chapter Five deals with the role played by both freeform and bound generics in classifying the Ngan'gityemerri nominal world. The morphology of these generics is surveyed with regard to the typological distinction drawn between 'noun class' systems on the one hand, and
'classifier' systems on the other. The semantics of noun class categories are also examined here.

Chapter Six examines the set of enclitics, some of which have scope over NPs and others over clausal propositions. The semantic functions of this clitic set vary widely, some marking such case-like roles as 'agent' or 'instrument', others encoding the kinds of meanings, like speaker attitude, that are commonly attributed to free particles. The class of free particles is treated in Chapter Seven.

Chapter Eight provides a brief presentation of space, time and number expression, and Chapter Nine deals with the freeform pronominal system, demonstratives and interrogatives.

Appendices to this grammar include the full subject-auxiliary sequence paradigms for both Ngan'giwumirri and Ngan'gikurunggurr, as well as four texts. Cassette tapes of the textual material included in the appendices have been submitted with this thesis, and copies of these will gladly be made available by the author to any interested readers.
Acknowledgments

Acknowledgments in theses tend to list personal debts after professional ones. I'd like to make one of my personal debts most prominent, for the reason that neither language informants enduring laborious and uninsightful elicitation, nor supervisors plowing through copious draft chapters, make the personal sacrifice towards a Ph.D that one's spouse does. Janet Douglas not only endured for four years the stresses imposed by living below the poverty line, my prolonged absences on fieldwork, and my preoccupation with topics beyond her own interests, but at the same time bore our two children and developed her own art. She skillfully trod the fine line between being totally supportive on the one hand, and ensuring, on the other, that I understood that this had to finish. I couldn't have done this without her.

I'd like to express my gratitude to all the inhabitants of the communities of Peppimenarti, Nauiyu Nambiyu and Wudi Gapil Diyerr for the friendship and generosity they extended to me, for their tolerance of my preoccupations and blunders, and for sharing with me their language and way of life. To teach me NgW I have been particularly fortunate in being commandeered by Robert Daly. Delighted to find a whitefella interested in his language, he spent twelve months befriending me, teaching me, and getting us both into trouble. As a gifted narrator, an enthusiastic and perceptive polyglot, and a man with an extraordinary memory, he proved to be an excellent teacher. He provided encouragement when needed, though delighted in publicly chiding his 'schoolboy', as he liked to call me. Widely acknowledged as a superb didjeridu player, and master of a wide range of song styles, he opened my eyes to the whole field of song language and structure that my linguistic training had not prepared me to even consider as 'language'.

Numerous other people at Peppimenarti have contributed towards my understanding of Ngar'gityemerri, and been great friends. Special thanks to Agala, Tyemeny, Tyarambu, Lunggu, Talungga, Wirigaty, Maguraty, and Terry Sams.

Molly Mafulenggit of Nauiyu Nambiyu checked my NgW data and provided texts and data of her own, particularly with regard to zoological and botanical taxonomy.

Daisybell Malfiyin and Long Harry Barney also taught me some NgW and confirmed the Láves' data as the Ngar'gimerri of rak-Merren. Long Harry recorded for me his entire song repertoire.
Patrick Tyabada provided some entertaining NgW texts, and was invaluable in site mapping rak-Lafuganying. And thanks to Old Tilmarr who gave me his sweat.

My NgK teachers were initially the late Topsy Parry, the late Mabel Kada, and Margaret Parry of Nauiyu Nambiyu and Wudi Gapil Diyerr. Later they included Martin Padu, Pincher McCann, Paul Tyekpity and Stephen Kundu of Peppimenarti, and Topsy Waya of Nauiyu Nambiyu.

Harry Wilson, king of Peppimenarti, doubled the productiveness of my time there by ensuring that I never experienced the sense of security that might lead one to slacken off. At the same time he was generous with accommodation and supportive of my work. To him and Regina I'm very grateful.

My entire time in the field was spent under the 'parental' guidance of Bill Parry, who always kept an eye out for me, introduced me to potential informants, kept me informed of local political developments, and was always ready with a cup of tea and a dirty story.

At Daly River Mission Joseph Parry, Dianne Tchumut and Angganmerr have been terrific friends, and the Nauiyu Nambiyu council and mission staff have always been most kind to me, providing accommodation and other support when necessary. At Peppimenarti the successive headmasters David Shute and Tony Crichton were always enthusiastic about my work and encouraged me to spend time teaching in the school. Other European staff at Peppi, Sue Crichton, Michelle Spencer, Kim O'Donnell, Kerry Green, Angelita Martini, and Ruth and Glenn Rogers, provided an entertaining alternative social life, numerous kindnesses, and some fabulous meals. Visits to Peppi by Alan Marett during my 1988 fieldtrip first got me interested in the structure and language of song, and I enjoyed our joint investigations into these topics immensely.

My interest in Australian linguistics was first fired by Bob Dixon, and as my main supervisor he was thorough and always encouraging. Harold Koch provided additional supervision, particularly with the final draft. I'm greatly indebted to Ian Green. He not only provided me with the opportunity to first engage in fieldwork, but discussions with him over the subsequent years and his detailed comments of early drafts, have significantly shaped my analysis of Ngan'gityemerri. Mark Harvey has proved to be a thorough commentator, and made numerous suggestions for improvements, particularly in the phonology chapter and the section on bodyparts. For additional comments on various parts of this grammar I'm grateful to Felix Ameka, Andy Butcher, Anne Dineen, Nick Evans, Phil
Rose, David Wilkins and particularly to Nick Piper who did the last minute typo hunt.

Alison Hoddinott and Frances Kofod graciously allowed me access to the Hoddinott and Kofod grammar whilst it was still in preparation for publication.

In Canberra Ian Green, Nick Piper, Felix Ameka and Andy Butcher forced me to drink four years of bad coffee, but also kept me sane. Thanks.

Numerous other friends including Pete & Jay, Bill & Paul, and especially Alison & Dave, have been unstinting in their support.

Fieldwork funding was provided by the ANU Faculties. The AIATSIS kindly provided me with a vehicle for the '86 fieldtrip. When I ungraciously wrote this off, Warwick Dix was extremely helpful in finding a replacement vehicle for me. For my '88 fieldtrip the AIATSIS again provided funds which enabled me to hire a vehicle from NARU (who additionally helped out with camping equipment).

While all the people mentioned here have enriched this project, of course none of them are responsible for the content.
Abbreviations and Conventions

General Abbreviations
eg. 'for example' ie. 'that is..

cf. 'compare with..' lit. 'literally'

Reference Abbreviations
ibid. 'in the same section'
op. cit. 'in the above mentioned work'
loc. cit. 'on the same page of the above mentioned work'

Phonological Conventions
[ ] phonetic representation
/ / phonemic representation
C consonant
V vowel
N nasal
# morpheme/word boundary
' primary stress
\ secondary stress
( ) optional element
→ is realised as...
/ in the environment of...

Morphological and Syntactic Conventions
S subject of intransitive
A subject of transitive
O object of transitive
N noun
NP noun phrase
V verb
VP verb phrase
( ) optional
* ungrammatical
(* ) ungrammatical if bracketed element included
*( ) ungrammatical if bracketed element excluded
{ } underlying form
= boundary between 'auxiliary' and 'Complex Verb Stem'
- boundary between complex verb morphemes
Kinterm Abbreviations

| B | brother          | M | mother          |
| D | daughter        | S | son             |
| F | father          | W | wife            |
| H | husband         | Z | sister          |

Interlinear Gloss Abbreviations

1  first person
2  second person
3  third person
AGENT  agent
ALSO  as well, again, too, still
AR  auxiliary root
ASSOC associative
Aux auxiliary
CAUS causative
CORRECT corrective, it's meant to be...
COTEMP cotemporaneously, just at that time
CVR complex verb root
CVS complex verb stem
DESPITE despite X, even though X
dl  dual
DO  direct object
EMP  emphatic
ex  exclusive
F  feminine
FOC temporal or spatial focus
Fut  future
HITH hither, towards speaker
IMP imperative
IMPL implicated argument
INAB inability
inc inclusive
INCH inchoative
INDEF indefinitiser
INSTEAD in place of..., in preference to...
INSTR instrumental
INTENT intentional, just about to...
IO  indirect object
Irr  irrealis
Noun Classes

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<td>A</td>
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<tr>
<td>Bp</td>
<td>bodyparts</td>
<td>M</td>
<td>male</td>
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<td>Bsp</td>
<td>bamboo spears</td>
<td>Pf</td>
<td>plant food</td>
</tr>
<tr>
<td>C</td>
<td>canine</td>
<td>Tr</td>
<td>tree/thing</td>
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<tr>
<td>Csp</td>
<td>canegrass spears</td>
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Structure of Examples

Examples are structured as four lines. The first line is the Ngan'gityememerri sentence/word in bold script. Loanwords are treated in one of two ways. English loans which essentially retain their English phonemicisation and meaning are given in the first line of examples in plain rather than bold script, to denote their status as loan words (or in some cases, code-switching). Loans from English which have been phonemicised into Ngan'gityememerri, or have acquired new or extended meanings as loanwords are given in bold script and provided with an interlinear gloss on lines two and three (i.e. in accordance with Ngan'gityememerri speakers' perception of such words, I have treated them as 'proper NgK or NgW'). The second and third lines of examples, in italic script, provide an interlinear gloss. I've found the use of two lines necessary simply because of the morphological density of the verb in particular. Lines 2 and 3 are meant to be read jointly from left to right, rather than sequentially. For instance, the gloss to the example given below should be read as;

```
wuddumbuny-ngerr -mi -wul -nime-pagu
3pl Shove -dl/1sg-Val-return- tr -HITH
SU Perf SU/DO SU
They (three) brought me back here.
```

"third plural subject, 'shove' auxiliary in perfective inflection, portmanteau dual subject and first singular direct object, valence increaser, return (verb root), trial subject, hither directional"

As evident in the above example, I use a slash / between the glossed elements of a portmanteau morpheme. Another minor convention is the inclusion, below the verb root, of the meaning of the verb. This is given only in those verbs whose meaning is unpredictable from the combination of the auxiliary and verb root semantics.

Auxiliary roots are glossed by name (e.g. 'Shove' in the example above). The semantic nature of auxiliary verbs is discussed in detail in chapter 5, and readers seeking explanation of auxiliary root glosses are referred to this section. The 31 auxiliary names are listed below.

<table>
<thead>
<tr>
<th>Simple</th>
<th>Complex</th>
<th>Detransitivised</th>
</tr>
</thead>
<tbody>
<tr>
<td>sit</td>
<td>hands</td>
<td>handsDtr</td>
</tr>
<tr>
<td>lie</td>
<td>feet</td>
<td>feetDtr</td>
</tr>
<tr>
<td>stand</td>
<td>mouth</td>
<td>mouthDtr</td>
</tr>
</tbody>
</table>
go poke pokeDtr
go* slash bashDtr
say bash sayDtr
hang heat heatDtr
take shove shoveDtrS
see suck shoveDtrD
arrive pull seeDtr
snatch

The fourth line of examples, in plain script, provides an English translation. I've been fairly free with translations, attempting, in addition to an accurate rendition, to convey something of the speech style. To this end, in a few cases I have translated using expressions that are characteristic of the English of Ngan'gityemerri speakers, but which may be less well known in standard Australian English.

The use of brackets ( ) in the fourth line of examples either provides contextual information which is missing from the given example, but established within the wider discourse, or clarifies implications of the example. e.g. I brought it for her (to give to her), (on her behalf), (at her request) etc. A bracketed sentence below the line-4 translation is an alternative translation.

Example numbers are of the form 3-56, where 3 denotes the chapter number, and 56 denotes the example number within that chapter. Examples in each chapter are renumbered from 1. Ngan'gikurunggurr examples are marked by 'NgK' below the example number. All examples not designated as NgK should be understood to be Ngan'giwumirri, unless specified in the text as some other language.
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MAP 1

Languages of the Daly River Region

This map has been hand drawn with Macintosh™ Superpaint™ graphics. While it is intended to represent language and dialect boundaries as accurately as possible, it is not drawn strictly to scale. The boundaries of Ngan'girumirri, Ngan'gimerri and Ngan'gikurunggurr countries are based on my own fieldwork. The northern half of the map is based primarily on Green (1989). The orthographies adopted for language names are given in 1.1.
Chapter 1

Ngan'gityemerri: the language, the speakers, the culture.

1.1 Language Names

The names Ngan'gikurunggurr and Ngan'giwumirri are etymologically compounds of *ngan'gi* 'language/story/word' and *kurunggurr* and *wumirri*. *Kurunggurr* is both the name of a particular billabong in the muyil marshland west of Peppimenarti, and also the general term, in both Ngan'gikurunggurr and Ngan'giwumirri, for deep, dark water, as found midstream in a river. Ngan'gikurunggurr people do not prefer either one of these referents, as opposed to the other, as the source of the language name. The etymology of *wumirri* is not clear. In response to my queries, some Ngan'giwumirri people have remarked upon the similarity with *wumirr* 'the resinous substance found among the roots of the ironbark tree'. There is however no general agreement about the relevance of this similar term to the language name, nor any supporting morphological evidence (i.e. the final -i is otherwise unattested as any sort of derivational suffix).

Ngan'giwumirri and Ngan'gikurunggurr are, on linguistic criteria, dialects of a single language. They share an identical phonemic inventory (though realisation and stress rules differ); share identical verbal structure - the number and semantics of their systems of auxiliary verb appear to map onto each other perfectly; they share a cognacy rate of about 85%; and are mutually intelligible. Speakers of these dialects refer to them as 'languages', and acknowledge their subgrouping by comparing their degree of similarity with other pairs of dialects - "NgK and NgW go level, like Marrithiyel and Marrisjebin go level". Speakers of both dialects agree that NgK is 'light/smooth' while NgW is 'heavy/rough'. To judge from their

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1In referring to the names of other languages I use those that stem from what I consider to be the most comprehensive studies available (whether published, manuscript or personal communication). I employ Green's (pers. comm.) orthography for Marrithiyel, Marrisjebin, Marringarr, Marri Dan, Marri Ammu, Marri Ge, Marramaninjsji, Merranunggu, and Menhdha. I have also adopted Green's spelling for Matngela (though without the superscript y following the ng, denoting a palatal off-glide). Gamu is written in the orthography of Harvey (pers. comm.), (who incidently believes the final vowel of Matngela to be i, e.g. Matngeli). Murrinh-patha is written in the orthography used by the Port Keats school. Jaminjung follows Chadwick (1984 ms), and Wagiman follows Cook (1987). Emmi follows Ford (pers. comm.). At certain places in the text I give the variant spellings of other authors. In these cases I have adopted the practise of enclosing such language names within single quotation marks, e.g. 'Nengomeri'.

comments, this distinction would appear to be based primarily on the strict maintenance in NgW of hetero-organic nasal/nasal and nasal/stop clusters at the boundary between the auxiliary root and whatever follows it. The same underlying clusters in NgK are subject to assimilation rules, e.g.

1-1  NgW  meny-ngé  NgK  meng-ngé  'he told her'

Also contributing to this perception are NgW voiced stops corresponding to NgK voiceless stops;

1-2  NgW  wedi  NgK  weti  small
     minbadi  minati  big

NgW nasal/stop clusters corresponding to NgK single nasals (as in 'big' above) or single stops;

1-3  NgW  ngeningge  NgK  ngenike  sister

and NgW high+back vowels corresponding to NgK high+front vowels (especially in word-final position); e.g.

1-4  NgW  kuru  NgK  kuri  water
     funggulu  fungguli  sugarbag

The language that these two dialects constitute, has no name. Here, as in most parts of the country, the Aboriginal perception of 'language' names and relationships are not necessarily based on distinctive linguistic attributes (Dixon 1980:43). For the purposes of this grammar, I have used the name Ngan'gityemerri to represent this linguistically defined language. This should be clearly understood to be a linguistic abstraction of my own

2 I distinguish between linguistically defined language, and Aboriginally defined 'language', by placing the latter in quotation marks.

Note also that the practice of forming 'language' names through a compound with the word for 'language', does not in any convincing way suggest that the primary reference of these names is to language rather than people. This is a region where languages are spoken in continuous blocs of country. If you know someone's country, then you know their language, and vice versa. Within this environment, names that formally define languages, also define their collective speakers and the country they belong to.
fabrication, and one that does not reflect universal native speakers usage of the term.

The etymology of Tyemerri is unclear. Ngan'gityemerri speakers claim that just as they refer to the Marrithiyel as 'Ngan'gikamu', so they are referred to by the Marrithiyel as 'Marrityemerri'. Green (pers. comm.) reports that 'Marri Sjemerri' is the name by which Marrithiyel speakers refer to Ngan'gikurunggurr (though he further notes that at least one Marrithiyel speaker uses it as a cover term for both NgK and NgW). One might assume from this that speakers of NgW and NgK have calqued this term, borrowing Syemerri from Marrithiyel and substituting ngan'gi- for marri-, deriving Ngan'gityemerri. However, Green suspects that 'Sjemerri' is probably not a Marrithiyel word because the standard Marrithiyel practice for referring to surrounding languages/dialects, is to compound Marri 'language' with a word from the language being described, rather than with a Marrithiyel descriptive term (cf. Marri Wuda, Marri Wumirri etc.).

The etymological obscurity of the term 'Ngan'gityemerri' is matched by the varying reference with which it is used. Some speakers (both NgK and NgW) use it in reference to both NgK and NgW, but others (both NgK and NgW) use it to refer to NgK only. I use the term Ngan'gityemerri in reference to the language only, and so throughout this work I am careful to refer to 'Ngan'gityemerri speakers', but not 'Ngan'gityemerri people'.

Hoddinott and Kofod and also Tryon began work on Ngan'gikurunggurr around about 1967 and are the first writers to have used this name for the language. Up until then all reference to this language, in works such as Laves (1931), Stanner (1933), Davidson (1938), Capell (1963), and Oates (1970), is given as Moiil/Moil/Moyle/Moyl. This term is the Ngan'gityemerri name muyil for the vast area of marshland, stretching from the mouth of the Moyle River some 35kms inland to Peppimenarti. The English name for the river is presumably based on this placename. The area referred to as muyil is inhabited by the NgK, Marringarr and Marrisjebin (possibly once Marri Ge: also); however, as used by Ngan'gityemerri speakers, this term has no reference to people, but simply designates a geographical feature.

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3Tryon used 'Tyemerri' as group and sub-group labels in his 1974 classification of the Daly languages. He indirectly alludes to the possible Marrithiyel source of this term, 'It is also known within the Daly area as Tyemerri or Marrityemerri' (Tryon 1974:229). Hoddinott and Kofod also note 'Tyemirri' as an alternative name, but confuse it with the discourse particle tyamirri 'finished'. On the basis of this misunderstanding they make the rather fanciful claim that '...the alternative name for the language, Ngankityemirri, means the 'finished' or 'perfected' language' (H&K 1989:2).
Despite its prevalence in the early anthropological, linguistic and 'adventure' literature, there is no evidence that NgK people ever used the name 'Moiil' in reference to themselves. Rather, it seems to have been used by other Daly groups as a dismissive label for those 'bush/myall blacks' from the swamp country who had less ready access to the settled strip along the middle Daly River. How and when the term 'Moiil' came to exclusively refer to the NgK is not altogether clear, though in all probability it is largely attributable to Stanner. What is clear though is that this usage was the artefact of European researchers, and not of the Aborigines of the area. The usage of this non-self-designatory term stemmed simply from the fact that none of the early writers actually had much contact with the NgK. Stanner, for instance, notes that "Bush tribes like Nangor and Moiil, with which the writer had no effective contact, seem on native reports to be very little altered" (Stanner 1933:21). These days NgK people acknowledge that they were the people once designated as 'Moil', but neither they nor, as far as I am aware, any other Daly groups now use this name.

Stanner refers to two others groups by the names 'Nangimeri' and 'Nangiblerbi'. Ngan'gimerri, a third dialect of the Ngan'gityemerri language, was the name given to the speech variety of the northernmost NgW estate group rak-Merren. Although Ngan'gityemerri speakers give it a 'language' name (i.e. ngan'gi-), they acknowledge its greater similarity with NgW than NgK by using Ngan'giwumirri as a super-ordinate term that embraces Ngan'gimerri as well. Further discussion of the relationship between Ngan'gimerri and NgW can be found in Reid (to appear).

---

4 In this respect 'Moiil' was much like the term 'Beringgin/Brinken' in being a perjorative epithet that had shifting rather than fixed reference. In fact Stanner even quotes Durrmugam (a NgW) as referring to Marringarr and Marrithiyel as "those bloody ______ bastards of Moiils", and noting his "falling into the vulgar European error of lumping both tribes together as Moiils whereas a generation before they had been lumped together as Brinkens". (Stanner 1979:89)

5 Stanner's lack of direct contact with the Moiils comes as something of a surprise, for he describes how their camp was situated on the bank of the Daly in relation to the 'Marrithiel' and 'Nangomeri', and the impression one gets from reading his reports is that he moved widely (and fairly freely) up and down the middle Daly. Stanner's lack of direct contact with the 'Moiils' also perhaps explains his odd language subgrouping (Stanner 1933:387), where he groups Moiil with Marringarr and Marrithiyel, and groups NgW with Marramaninjji and Merranunggu.

Tryon's claim that Stanner was "one of the few anthropologists to have devoted much time to the study of the Ngangikurrunggurr" (Tryon 1974:229), appears to be incorrectly based on Stanners work with the NgW, not the NgK.

6 I have also heard this 'language' referred to as 'Ngan'gimerren'
As the speech variety of only a single estate grouping, Ngan'gimerri was probably never spoken by more than thirty or forty people, so the attention it received by European writers was somewhat disproportional to its status. Laves described this speech variety in 1931, Capell later collected some fieldnotes, and it gets a mention in the surveys of Capell (1963), Oates and Oates (1970) and Tindale (1974). In fact 'Ngangimiri' is given as the only member of the 'Ngangimirian Family' in Capell (1963). Although Ngan'gimerri was, between 1930 and 1960, perhaps the most well documented variety of Ngan'gityemerri, it was, as Stanner notes, by this stage no longer actively spoken; "other tribes such as the......Nangimeri and Nangiblerbi, formerly were in contact with the settlement, but are now either extinct or the few survivors have drifted into the stations and sidings along the railway line" (Stanner 1933:383).

By the time Tryon came to work on NgK and NgW around 1967, Ngan'gimerri seems to have been largely forgotten, or the similarities between its variant spellings and those of NgW had led to the belief that they were one and the same7. No-one speaks Ngan'gimerri today. Descendants of the rak-Merren estate can still be found at Naiyu Nambiyu and Peppimenarti, though they now have their primary affiliation in their mother's country, Lafuganying.

Stanner's reference to the Nangiblerbi is mysterious for two reasons. Firstly, no elder Ngan'gityemerri speakers now claim to have ever heard the name, despite their clear remembrance of Ngan'gimerri. Secondly, the morpheme-initial bl- cluster and the intra-morphemic -rb- cluster are both impermissible within contemporary Ngan'gityemerri phonotactics. A minor reference by Stanner to Nangikadre is equally mysterious.

1.2 Post-invasion History
1.2.1 1876-1955 Disintegration and Degeneration

After McMinn, Saunders and Sergison traced the course of the Daly river in 1876, the influx of non-Aborigines into the area was under way. Within a couple of years the Darwin Chinese community had established a farm on Peron Island at the mouth of the Daly, and miners had begun smelting copper at Coppermine, then later gold at Fletchers Gully. 1880 to 1906 were the years of most active mining, though other enterprises were

7Tryon for instance suggests that Capell's allocation of separate language numbers to 'Ngengmeri' and 'Nangimeri' is erroneous, "the two names being simply variants" (Tryon 1974:251). However, Tindale notes that both Schebeck and Cleverly, in personal communications, expressed the opinion that the different spellings were significant.
also underway. The Palmerston Sugar Company had the first farm with twenty acres of sugar cane just a few miles from Coppermine on the edge of the Kilfoyle plain.

Another significant European presence on the Daly during these early days were the Jesuits. Between 1886 and 1899 they had three mission sites, Uniya and Serpentine Lagoon on the west bank and New Uniya on the east. The Jesuits had previously had a mission at Rapid Creek in Darwin, but found Darwin Aborigines 'too demoralised' (Pye n.d). Believing they could only improve the lot of 'unspoiled natives' (loc. cit.), they looked to the inhabitants of the more isolated Daly region. The Jesuits' approach, a combination of protecting the indigenous culture whilst pushing agricultural development, education of children, and medical care, was strongly influenced by the 'reductions' carried out in 17th and 18th century Paraguay to protect the Indians from the Spanish.

"Religion is....primary in our intention, but in a manner secondary in our practise, because we recognise that we must first civilise the blacks before we can Christianise them.'

(Mckillop 1893)

The Jesuits seem to have fostered the use of local languages, and are said to have developed a Liturgy in Matngela. The floods that had prompted the relocation of their missions several times, and the difficulties in maintaining supply links with Darwin, eventually drove the Jesuits from the NT altogether in 1899.

Stanner (1933:381) estimates that there may have been "well over one hundred" non-Aborigines on the Daly around the turn of the century. However the switch from mining to agriculture, which heralded a succession of failed enterprises over the next twenty years, greatly reduced this number. The government farms established in 1908 and the government-assisted private farms begun in 1912, had virtually all foundered by 1920. A few Europeans battled on, mostly growing peanuts or tobacco and shooting crocodiles, but Stanner (loc. cit.) estimated that by 1933 their number had been reduced to about twenty. From that time until the mid-fifties a few new faces appeared to try their hand at farming, cattle stations took out leases on surrounding country, and a few, like Ridsdale, started reworking the gold mine at Fletchers Gully on a small scale. Their numbers however remained low.

From the accounts of Pye (n.d.), Flynn (1963) and others we can get a reasonable picture of the non-Aboriginal history of the Daly region. Stanner is the only source from which we can build a picture of the Aboriginal history of the same period. Clearly the twenty-odd mile strip of the middle
Daly, around the Jesuit missions and the farms, became the focal point to which Aborigines from as far as Delissaville and the upper Fitzmaurice River were attracted. Stanner's description of the situation that he encountered in 1932 is worth quoting at some length here.

"Between the Crossing and Brown's Creek two points about eighteen miles apart on the middle Daly, forming roughly the extremes of the settlement, are to be found members of such tribes as the Mulluk Mulluk, Madngella, Maranunggo, Nangiomeri, Marithiel, Moiil, Maringar, Wagaman, Nangor, Marimanindji and the Ponga Ponga; other tribes such as the Djerait, Wogait, Kamor, Yunngor, Kungarakan, Nangimeri and Nangiblerbi, formerly were in contact with the settlement, but are now either extinct or the few survivors have drifted into the stations and sidings along the railway line such as Pine Creek, Katherine, Brock's Creek, Adelaide river and Rum Jungle. Some Wogait are in Darwin.

Of the above mentioned tribes only the Mulluk Mulluk, Marithiel, Madngella, Marimanindji, Moiil, Nangiomeri and Maranunggo are now represented by groups of any size around the settlement. In all, there are probably less than 200 natives of all tribes who live permanently in or near the settlement. Vital statistics appear to point to a steady decline in tribal strengths, although alteration in the level of river population, at all times difficult to estimate, is more than ever obscured by the slow drift of other natives to the settlement and the unobtrusive retreat of some to the bush.

The important point in the foregoing is that a number of tribes, or the remnants of a number of tribes, have been on the one hand thrust together into a situation of conflict, strain, distrust and fear among themselves, and on the other into a harsh, unpleasant and harmful contact with whites and Chinese. ....the aborigines, by the virtual redivision among themselves of the old Mulluk Mulluk territory (now the common territory of them all), by the disruption of old territorial attachments and the modification of sentiments organised upon them, by the development of a complex series of emotionally-toned attitudes towards both settlers and their own aboriginal neighbours, have to some extent worked out a defensive adjustment to their difficult situation. But the adjustment is at best imperfect and unhappy, and has many elements of dissatisfaction. The aborigines have been without precedent to help shape their attitude. They have no real understanding of what has befallen, or why it has brought disintegration. Added difficulties have been placed in the way of satisfactory adaptation by the inelasticity of their social organisation, which seems rather to have ruptured than to have yielded or accommodated itself to the thrusts of culture contact; by their highly suggestible, imitative and impressionable dispositions; and perhaps by the unusual incidence of damage to their societies during the phase of contact." (Stanner 1933:383-4)
By the time Stanner made this report in 1933, the movement of all these people away from their traditional country was essentially complete, and Stanner does not comment on the process of this movement. Clearly this would not have happened overnight, and indeed the jostling, dealing and fighting that this territorial shift would have necessarily involved, can fairly readily be assumed to underly the "conflict, strain, distrust and fear" that Stanner describes. The 'inner' Daly people, i.e. the MalakMalak, Matngela, Marramaninjsji and Gamu, are likely to have prized their access to a source of tobacco, flour, tea, rum, clothes etc. and prevented, or at least exploited, attempts by the 'outer' groups, such as the Marrithiyel and Ngan'gikurunggurr, to get a toehold on the riverbank. Some evidence for this is found in the pejorative names, such as 'Moiil' and 'Brinken', used by the inner Daly people in reference to the 'myall blackfellas' from these outlying areas who had not learned to wear clothes or picked up any of the whiteman's language. This kind of process, i.e. those closest to new settlements blocking the access of more distant groups and then stigmatising them for their 'backwardness' and 'sorcery' seems to have been a component of the pattern of settlement in many parts of the country.

During this period of transition from homelands to the riverbank, the relative positions of the NgW and NgK were probably quite different. For the NgW would have had better access to the river through the narrow corridor of NgW country that reaches right up to the Daly River at Tyiliny (Chilling Creek), only a few miles upstream from the Crossing. In comparison the NgK were much more effectively blocked from access to the settled strip of river, and were probably among the last to make it their permanent camp.

These early years on the Daly riverbank were the most desperate period of their history. Stanner describes widespread fear of sorcery, the indiscriminate killing and rape of unprotected travellers, constant feuding and payback, and people ravaged by grog, opium, tuberculosis, influenza and the syphilis that rendered so many women infertile. The population had declined rapidly as a result of all these factors. The figure of 200 that Stanner gives as actually living on the settled area of the Daly, probably accounted for the majority of these people, as there is little evidence of other permanent settlements. There are no reliable pre-invasion population figures with which this can be compared, but to hazard a guess I would assume that NgW speakers numbered between 200 and 250, and NgK speakers between

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8Stanner also notes that "most river tribes agree that the Brinken possess a great many sorcerors" (Stanner 1933:25).
150 and 200. This guess is based on two criteria; the superabundant nature of the countryside, and by multiplying the number of estate groups by the figure that present day Ngan'gityemerri speakers regard as normal estate group size.

Tensions between the groups living along the riverbank seem to have subsided during the late thirties and forties. This appears to have resulted, not from improved social cohesion, but rather from further disintegration as the population was split between the farms, cattle stations and the army bases at Adelaide River. It was during these years too, that children of mixed-blood were removed from their camps and sent to Melville and Croker islands. Of the post-war years it can be said that no groups (except possibly the MalakMalaks) were residing on their own land, and that the majority of members of every language group (except possibly the NgK) were not even residing in the Daly river region at all, but were dispersed to the north and the east. This fragmented state continued until in 1952 Joe and Bill Parry, Harry Wilson and John Chapman lobbied Bishop O'Loughlin and the Native Affairs Branch in Darwin to provide educational and medical facilities. Thus began the Daly River Mission.

1.2.2 1955 onwards Daly River Mission

Founded in 1955 by Missionaries of the Sacred Heart (on what is probably Gamu country), the Daly River Mission became the focal community of most of those Aborigines still remaining along the river. Some continued to live and work on cattle stations, but most of the Marrithiyel, Marramaninjsji, Merranunggu, Ngan'gikurunggurr, Ngan'giwumirri, some Marringarr, and the occasional Wagiman, made this their home. Only the MalakMalaks remained apart, as they continue to do today, living around Woolianna.

Protected from outside exploitation, these were the safe years. Despite the continued solidarity of language groups, a sense of community began to emerge. The presence of the mission vastly improved the physical state of these people; however, traditional culture was further eroded. Mission policy was strongly directed towards two goals - the need to inculcate a work

9I am unprepared to commit myself to anything firmer than a guess here, because of two potential variables within the second criteria that I have employed. Firstly, as noted in 1.3.3, the number of estate groups presently recognised may possibly be less than were in existence pre-contact. Secondly, the population size that is presently considered by Ngan'gityemerri speakers to be 'normal' for an estate group (30-40), may also have changed over time.
10

ethic and a western view of stable family life, and the establishment of individual rather than collective responsibility.

"The tribal Aborigine has no real concept of work as we know it. He must, with his past, his attitudes, his inclinations, his total outlook, be educated to our notion of employment in the wage situation"
(Rev J Leary: Policy Statement, in Pye (nd :69))

"Employment should take the Aboriginal from his nomadic tribal hunting, nature dependent existence, to a modern, settled, economically based, individualistic, independent existence. From it must stem concept of home, family-life related to the home (as against the tribal concept), status in the community, responsibility (individual rather than tribal)"
(Rev J Leary: Policy Statement, in Pye (nd :69))

The mission discouraged the use of traditional language among children (see 1.4.1), attempted to stamp out most forms of ceremonial practice, and broke down patterns of social organisation, particularly by arranging marriages they deemed to be appropriate. Their active encouragement of traditional practices was essentially limited to the production of artefacts for sale.

"Apart from aspects such as 'Sunday Business' and the Pukamani\textsuperscript{10}, there is much by way of native arts and crafts which is very fine, and should be retained and encouraged."
(Rev J Leary in Pye (nd :41))

For the twenty years from 1955 to 1975 the Daly River Mission was the home of almost all the NgK and NgW people. Here the NgK and Marrithiyel established themselves as the dominant groups, and even today NgK is regarded as the lingua franca of the mission. By the early sixties NgK people began to re-establish links with their land. They set up a dry-season camp at Merrim in NgK country and spent a few weeks of their holiday time there each year. They stepped up their efforts in the late sixties, and a small band of people, mostly elderly and also pre-school age children, had a semi-permanent camp at *fepi minati* (Peppimenarti). Their numbers were swelled by those employed on cattle stations, who visited them during off-season periods.

\textsuperscript{10}Leary is refering to local mortuary ceremony. His use of the Tiwi term stems from his time spent on Bathurst and Melville islands.
By the early seventies when Aboriginal aspirations to leave settlements and establish permanent outstations on their own country, were beginning to gel and gain momentum across the Northern Territory, the NgK and NgW were ready to move. They had resolved to live in and protect their own country, and to determine their own mixture of economic enterprise and traditional cultural practice. An expression of this resolution by Harry Wilson appears in Pye (nd:35-7). I have taken the liberty of quoting excerpts of it below.

"It seems that everyone is telling us what we can do with our land. No one is asking us what we want to do with our land. We want our land and we want to live on it. It is our home as it was before the white man came. We did not spoil our land then, we will not spoil it now. First we want a good life on our land and to live that good life, we want to run our cattle station as a way of living... We are more interested in our way of life than making a lot of money and this is what we are trying to tell people, who seem more interested in just running a cattle station for a few people. We have lived away from our land for too long."

This decision was acknowledged by the mission in this way:

"What people like the Peppimenarti group are saying to us is like: We now accept the goals of socio-economic development you have been holding up before us, but, respectfully, we do not accept your programme. We want to leave the artificial mission centre which saved us and gave us our new vitality; we want to go back to our own country and do it our own way."

(1975 Mission Conference conclusion, in Pye (nd:37))

1.2.3 1975 onwards We are going home: Peppimenarti

NgK and NgW people struck out from the mission in 1975 and set up a permanent settlement at Peppimenarti. They run a cattle station, which was originally given a mustering lease over the Wildlife Reserve and all the Aboriginal land north of the Moyle river. Their hard work was met with government funding, and the community prospered. These were boom years and the employment ratio was very high. They snubbed their noses at unemployment benefits and were extremely proud to do so. In recent years, for many reasons, the high-riding Peppi people have been brought back to earth with a jolt. Once the initial injection of government funding had been reduced, it became impossible to continue expanding at the same pace. Competing leases reduced the area of land that they were entitled to muster, and consequently reduced the scope of the cattle industry. Reliance on unemployment benefits again became a fact of life. Morale was affected, but
the advantages provided by their isolation, of being in a position to control the extent of outside influence, and above all, of living on their own land, have enabled this community to survive.

In an account of his first visit to Peppimenarti in January 1976, John Pye (nd:40) noted that "almost all of the Daly River Moils\(^1\) are out there". Some certainly stayed behind and today these two groups are split between the two communities. The majority made the move though. In the 1986 - 1988 period during which I lived at Peppimenarti, the population varied between about 150 and 250. About 65% of these were NgK, about 25% were NgW, and the remaining 10% a mixture of Marrithiyel, Marrisjebin, Marramaninjsji and Jaminjung. During this same period there were about 10 NgW and 40 NgK people at Daly River Mission.

1.3 Traditional life
1.3.1 The Country

The land to which the NgW and NgK belong is wonderfully diverse. The eastern and northern NgW estates of rak-Merren and rak-Lafuganying are situated in the Wingate mountains, and are characterised by deep lush gorges between arid sandstone mesas. Running westwards from the Wingates through the NgW estates of rak-Nudik, rak-Tyingirim, rak-Nganambala, rak-Malifiyn and rak-Papngala, is a sandstone escarpment. Unlike the type of escarpment found around Oenpelli, which breaks off into the coastal plain in great buttress formations, this is a single line of cliff wall, up to a hundred metres in height, that splits the country into two distinct geographical zones. The top of the escarpment ninymunggurr, descending gradually southwards towards the Fitzmaurice, is dry and rocky, mostly spinifex and sparse trees stunted by lack of water. It cannot sustain permanent habitation, but was frequently used for east-west travel, particularly during the wet season when the low black soil plains were difficult to cross. The lip of the cliff wall is actually well watered, there being at least thirty permanent springs along a twenty kilometre section of it. Around each of these springs are small rings of thick vegetation, but the water falls straight back down the cliff in spectacular waterfalls.

In contrast to the top of the escarpment, the low level country holds its water and supports a rich diversity of flora and fauna. Flowing from pockets of rainforest along the base of the escarpment wall, through open forests of Eucalypts interspersed with pandanus and cycads, the Moyle river

\(^{1}\)Note though that Pye uses the term 'Moil' quite variously. He refers on the same page to the "Ngangikurrungur having similar customs to the Moil".
and its tributaries gently descend westwards into large flood plains of black clay soil before disappearing into the marshland of the vast muyil swamp that stretches from Peppimenarti thirtyfive kilometres to the sea.

The seven NgW estates that are represented by people presently living at Peppimenarti are roughly strung out in an east-west line, each consisting of both high escarpment and low plain country. The boundary of the easternmost state, rak-Lafuganying, runs the whole length of the Fish river, from Kuluy (Collah Spring) northwards to its junction with the Daly river. The northern boundary, between the rak-Merren estate and Gamu/Matngela/Marramaninjsji country, roughly follows the Daly - Peppimenarti road (which in turn follows the old Daly - Port Keats walking track). The southern neighbours, around the Fitzmaurice river, were the Jaminjung, and on the western side the Marringarr. East to west then, NgW country extends just over one hundred kilometres, from the Fish river to the muyil swamp near Wudipuli.

As can be seen from Map 1 (p. xxii), NgK country is much smaller, bordered on the southern and eastern sides by NgW. The northern NgK estates of rak-Fepiminati and rak-NgambuNgambu respectively abut Marramaninjsji country and the Marrithiyel-speaking rak-Marri Dan estate group. The four other NgK estate groups to the south-west of these, NintyiNintyi, Merrepen, Nerintyi and Ngulfe, are located lower in the floodplains. I am told that that during the worst of the wet season, rak-Nerintyi and rak-Ngulfe people often had to abandon their own estate holdings to the rising floods and camp on the fringes of the rak-Merrepen and rak-Fepiminati estates.

1.3.2 Cultural affiliations

NgW people, particularly those in the eastern estate of Lafuganying, once had close ties with the Wagiman. This was told to me by NgW people, and Cook (1987:3-4) implies that the Wagiman make the same claim. These ties have effectively been disrupted since the turn of the century, as the NgW were drawn northwards to the Daly River Crossing and the Wagiman drifted, or were forcibly removed (Cook 1987:16), southwards to the Pine Creek region. Most elderly NgW, and some NgK, still claim to either speak or 'hear' the Wagiman language. The area around Kuluy has been claimed (Cook 1987:3) to have been 'shared' between these two groups. Cook

Note that it is the Fish river that forms the eastern boundary of NgW country, not the Flora river as claimed by Tindale (1974). The country between the Fish and the Flora belongs, according to the NgW, to the Gamu (in the north) and the Wagiman (in the south).
(1987:4) also notes that both Wagiman and NgW are said to be buried in the cave graves at Bupa (Dead Man's Pocket).

The pre-invasion relationships between the NgW and NgK and their other surrounding neighbours are less readily distinguishable from modern ties, and hence less reconstructable. Genealogical evidence suggests that exogamy with virtually all neighbouring groups was the normal marriage pattern.

The NgW and NgK additionally have strong cultural and trade ties to the south, particularly along the biyawul/bingarawal trade route through Timber Creek, Kununurra and further south towards Balgo. Indeed the influence from the south, not only in economic life, but also in the spheres of social organisation and ceremonial and ritual life, has been so strong that Stanner refers to it as "the cultural debt that Daly tribes owe to the south and south-west" (Stanner 1933:385). To some extent the NgW were a buffer between this southern influence and the other Daly language groups. The NgW seem to have readily embraced and adapted much of this influence, some of which, like the religious cult described by Stanner (1956:4), flowed through to the rest of the Daly, while others, like the 'Arandic' subsection system, went no further.

1.3.3 Social organisation

The NgK and NgW languages are associated with continuous blocs of land, and so conversely land affiliation can be (and is) identified by language affiliation. Speakers of NgK are a collection of the six estate groups; rak-Fepiminati, rak-NgambuNgambu, rak-Nerintyi, rak-Merrepen, rak-Ngulfe and rak-NintyiNintyi. Speakers of NgW are a collection of the seven

13In reference to the trade route, the terms biyawul and bingarawal might be glossed as 'northerners' and 'southerners', respectively. The two groups designated by these terms may form some type of 'patri-moiety', though my understanding of the function of these groupings is very incomplete. This trade route comes up from Timber Creek to Peppimenarti, then forks eastwards to the Daly, and westwards to Nadirri and thence on to Belyuen. Among many other items (ochres, resin/wax, dillybags, pearl shells, armbands, bolts of fabric etc.) bamboo for spear shafts goes southwards, from biyawul to bingarawal, while boomerangs go northwards from bingarawal to biyawul. Still today the Peppimenarti men invest considerable time in fulfilling their trade obligations and anticipating the extent, and arranging the delivery, of their due. See also Stanner's comments on 'Merbok' (Stanner 1933:20).

14The estate numbers given here for NgK and NgW, six and seven, respectively, are those currently recognised. These figures may be conservative. I have recorded two other NgW names that appear to have been estate names; rak-Wulaya and rak-Kadinnyin. Biernoff (1982) also makes reference to a Ngan'giwumirri estate group by the name 'Moilyung', though I have never heard this term. Although estate boundaries, affiliations and names, have
estate groups; rak-Lafuganying, rak-Merren, rak-Nudik, rak-Tyin'girim, rak-Nganambala, rak-Malfiyin and rak-Papangala.

Estate membership is determined patrilineally, and is the main basis for claims to land. Land ownership is generally articulated in terms of a collection of totemic sites. All estate members jointly own these sites and therefore all share the same patrician totems. Stanner (1933:398) noted that the 'Nangiomeri' "once possessed a type of patrilineal totemism, but it is too late now to establish what precise form it took", and goes on to suggest that it was replaced by a new form of matrilineal subsectional totemism that was borrowed with the subsection system. My own observations do not concur with this. The NgW still have a system of patrilineal estate totemism, and there is presently no evidence of the new system Stanner described. This is not to suggest that Stanner was wrong. During the time of his fieldwork the NgW may have been 'toying' with a new southern import, that like the subsection system, gained only a precariously foothold, and then was subsequently passed over.

The NgW were the only Daly group to augment their basically Kariera kinship system with a version of the 'Arandic' subsection system (the NgK have flirted with the names but no-one could explain to me the workings of the system). They refer to this system as finy 'sweat', or as 'kin' when speaking Kriol (this is an adaptation of English 'skin', not 'kin'). Stanner (1933:401) implies that the NgW had only recently borrowed it from the south, at the time when he worked with them in 1932 (without being any more specific about the time or source). The impression he gives, that probably always been subject to change, the drastic depopulation of the last one hundred years has almost certainly escalated this phenomenon, leaving some estates unclaimed, through either the extinction of patrilines, or switches in land affiliation. This has resulted in some cases, in the responsibility for certain estates being invested with other estate groups. For instance, Robert Daly, the 'boss' of rak-Malfiyin, is now additionally acknowledged to be the 'boss' of both rak-Nganambala and rak-Tyin'girim, which until recently were the estates of his father's half brothers.

Other associations are recognised, particularly to one's nganingetyi (mother's country), and to a lesser extent to the country of one's mother's mother, and spouse. In a few cases these have become the primary cases for claims to land.

McConvell (1985) argues in support of the claim that this subsection system is likely to have originated among the Nungali, or Jaminjung. Assuming this to be correct, the system appears to have diffused for vast distances to the west, south, east and north-east, but its diffusion to the Daly languages directly to the north would appear to have been resisted. The Ngan'giwumirri are the immediate northern neighbours of the Nungali and Jaminjung, but, if Stanner is correct, they only began to show interest in the subsection system early this century. McConvell's claim about the source of the subsection system is based primarily on the existence in Nungali of a productive noun class prefix system with masculine and feminine forms ja- and na-, respectively. Note that these forms also crop up in the Barkly Tableland.
it was fashionable but essentially functionless (Stanner 1933:398-400), would appear to still hold true today, except that the fashionableness too has faded a bit. Pressure to reject the system basically stemmed from problems in meshing it with a Kariera kinship system.

"The Nangiomeri are trying to apply, and have most ingeniously done so, to a Kariera type of social organisation, a subsectional system elaborated by a much more complex society probably related to the Aranda type. That is, a systematisation of a kinship system of the Aranda type has spread to them without the system upon which it is based itself having been adopted." (Stanner 1933:398)

The subsection system was re-organised into two parallel cycles of matrilineal descent. The cycle is four generational, whereby a man's father's father and son's son fall into the same subsection, with a choice in marrying into either or both of two subsections. The ingenuity that Stanner referred to was the development of a mechanism to prevent a man marrying his own daughter's daughter, which was a potential development of the choice in subsection (Stanner 1933:398).

The finy system now only exists among the NgW community at Peppimenarti in a very precarious way. While many people, particularly the older ones, still claim to 'have finy', their reckoning of relationships is always carried out in terms of the kinship system.

1.3.4 Wangga and Lirrga

Music plays a central role in the cultural life of Ngan'giwumirri and Ngan'gikurunggurr people. The furtively sung wudisyu and tyarrada love song styles are now only performed by a few elderly women and men. However all ritual, ceremonial and festive events are accompanied by the performance of wangga or lirrga, and these dances are now taught as part of the curriculum in the Peppimenarti school.
Map 2
Songstyle Distribution in the Southern Daly Region

This map has been hand drawn with Macintosh Superpaint graphics. While it is intended to represent language and dialect boundaries as accurately as possible, it is not drawn strictly to scale. The boundaries of Ngan'giwumirri, Ngan'gimerri and Ngan'gikurunggurr countries are based on my own fieldwork. The northern half of the map is based primarily on Green (1989). The orthographies adopted for language names are as given in 1.1.

As can be seen from Map 2, speakers of NgW, Marrinangarr and Wagiman inherit the lirrga songstyle, while speakers of the Marri
languages and NgK inherit the *wangga* songstyle. Songstyles are inherited through patrilineal descent lines and all estate groups speaking the same 'language' variety share the same style. While songstyle inheritance can be determined by 'language' affiliation, the inheritance of different styles by the NgW and NgK shows that higher linguistic subgrouping is not a relevant factor.

The current status of *wangga* and *lirrga* varies widely. Full performance requires three types of skills; a singing man, a 'bamboo' man (didjeridu), and dancers. At present there is no performance of *wangga* by the NgK, Marrithiyel, and Marramaninjsji, and no performance of *lirrga* by the Wagiman, all of these groups lacking a singing man, a bamboo man, or both. Among the NgW there is at present only a single singing man and a single bamboo man. There are slightly greater numbers of *lirrga* performers among the Marringarr. It is only among the Marrisjebin at Nadirri that a strong band of *wangga* performers can be found. In 1988 they had at least three singing men, as many bamboo men, and numerous dancers.

Singing men have a repertoire of between about five and twenty songs. They build this repertoire in three ways. Firstly, they are taught songs by singers outside their own estate and given the right to sing them in the absence of their original owner. Songs acquired in this way are withdrawn from a singer's repertoire for a year or two upon the death of the original owner. Secondly, they inherit songs from their fathers. These are not subject to withdrawal on the father's death, so a singer's repertoire can be seen to be the property of a patrician, that is added to over successive generations. Thirdly, singers acquire their own songs. The creative source to which these songs are attributed varies from singer to singer. Some claim to just make them up themselves, others receive them in dreams from benign spirits. All the Marrisjebin singers receive their songs from what they call *walhakanda*, the little people of the swamp country. They claim a lifelong relationship with the particular *walhakanda* who brings songs to them, and can give details of his family, kin relationships etc.

Both *wangga* and *lirrga* songs employ mostly everyday language, and in this respect appear to differ from the Wongga (sung to the east around Barangka/Bamyili) which consists largely of nonsense vocables (Marret: 18

17My knowledge of songstyle distribution north of the Marrithiyel and east of the Marramaninjsji, is limited. Although not included in this map, I know that Wangga is also sung at Belyuen, so it is probably also inherited by the Wadjiginj. The Merranunggu may also inherit Wangga.

18The NgW singing man (Long Harry) has two vocable songs in his repertoire, but these were given to him by Jimmy Nott, a Burarra YagYag singer from Maningrida.
pers. comm.). They throw up simple images; birds screeching and wheeling in the treetops, someone catching a glimpse of a ghost, the discovery of kneemarks in the grass where people have been copulating, etc. Songs vary in length from a single word in one case, to about four clauses. The whole song is typically repeated four or five times over with clapping stick breaks in between. One of Long Harry Barney’s lirrga songs\textsuperscript{19} is given below.

\textbf{1} dede Lafuganying
\textit{country estate name}
My country Lafuganying,

\textbf{2} wibem-wayi -madi
\textit{3sgLie-empty-chest SU Pres}
it's lying empty,

\textbf{3} dede Lafuganying
\textit{country estate name}
my country Lafuganying,

\textbf{4} wibem-wayi -madi
\textit{3sgLie-empty-chest SU Pres}
it's lying empty,

\textbf{5} gagu asyinme
\textit{animal white cockatoo generic}
(just) white cockatoos

\textbf{6} dingim -dirr -gatit -yirrimbin
\textit{3sgMouth-teeth-feed -3sgGo* SU Pres SU Pres}
feeding on the riverbank.

In addition to the 'language' group affiliations noted above, performers articulate the differences between wangga and lirrga in terms of minor structural phenomena; for instance wangga singers signal the end of a song to the bamboo-man with three small taps of the sticks, but lirrga singers do this by singing 'ny ny ny'.

In addition to songstyle affiliations claimed through one's patriline, all males who have been through the circumcision stage of initiation have an affiliation with the songstyle that was performed at the moment that they were cut. This affiliation is expressed in such terms as; "I was cut lirrga-way, so even though I'm a wangga man (by patrilineal affiliation), if I was visiting on the Wagiman side (who are lirrga by patrilineal affiliation) then they'd know me over there". This kind of affiliation is also expressed in the use of songstyle terms as names for men. Any man can be indirectly referred to, or directly addressed, by the songstyle associated in this manner with his circumcision (see the reference to Warrigal Martin as 'lirrga' throughout most of Text 1 in Appendix C. Being Marrisjebin, Warrigal inherits and performs the wangga songstyle, but was cut lirrga-way). Calling to someone in this way serves to remind them of the bond forged between the initiate

\textsuperscript{19}I am grateful to Long Harry for his permission to reproduce this song here. This is the same song that he sang for the court during the Upper Daly claim hearings, as evidence of his affiliations to the rak-Lafuganying estate.
and the inheritors of that style, and its attendant responsibilities. As such, it is the favoured way of addressing a young man who was cut in the style inherited by the caller.

1.4 Ngan'gityemerri language today
1.4.1 The status of traditional Ngan'gityemerri and Kriol

Today Ngan'gityemerri is being largely abandoned in favour of Kriol. This switch can be dated fairly precisely. The disintegration and degeneration of traditional life that Stanner reported had long been active, by 1933, had led to drastic depopulation and the disarray of social organisation. Despite this background, the work of Stanner and Laves suggests that the use of traditional language up to the mid-1930's, remained fairly strong. Although the numbers of speakers of each language were far less, those remaining in the riverbank camps, on cattle stations, and clustered around the middle Daly farms, retained their first languages, and in addition to them learnt English from the European settlers.

If any date is really significant in the linguistic history of this area, it is 1955 - the establishment of the Daly River Mission. The mission had two significant impacts on traditional language usage. Firstly, it lumped together speakers of about eight different languages into a single community for the first time. Despite the high level of multilingualism that characterises this area, with speakers of so many different languages living in day to day contact, there would have been considerable pressure towards the development of some kind of communillect. The direction that this seems to have taken is that NgK has become the dominant traditional language of the mission, being spoken by most adults, in addition to, if not as, their first language.

Secondly, the mission staff actively discouraged the children in their care from speaking their languages, as part of a policy directed at the perceived need to educate the young generation in the absence of parental influence.

"The mission was to be primarily a boarding establishment for the young to be educated. At holiday time the children would return to their parents....Adults were not to be encouraged to live at the mission but to remain working at their present state of employment. They would be encouraged to seek employment outside the mission, and even given help to find such employment."

(Rev J Leary 'Daly River Policy' in Pye (nd:67-8))
The significance of the 1955 date is borne out in the marked difference in the fluency in traditional Ngan'gityemerri that is evident between the 'school generation' and those who never went to school. Almost everyone presently over the age of 40 years has full command of their first language, usually in addition to some variety of Aboriginal English. However amongst those people now aged about 40 years (i.e. those who were beginning school in 1956) and younger, there is a marked decrease in their traditional language fluency. Although the degree of fluency amongst this agegroup varies widely, very few have full command. Within this group women tend to have a much higher degree of fluency than do men. As has been noted elsewhere (e.g. for Kayardild in Evans (1985:28)), this is probably in part a reflection of the patterns of social affiliation whereby young men hang around in peer group gangs, while young women spend more time in the company of older women, particularly within the confines of the single women's camp.

This sub-40 generation has effectively lost both its traditional language and the Aboriginal English of their parents. Most sub-40's retain a good passive knowledge of standard Australian English (to which they have quite heavy exposure through school and, especially, television and video). However the commencement of English teaching in the mission school seems to have coincided with (if not actually triggered) a shift away from both traditional languages and Aboriginal/Standard English, towards the Kriol that is now the first and active language of all children living at Daly River Mission and Peppimenarti. The status of Kriol within these communities is recognised neither by the schools, which maintain an English-as-first-language approach to their curriculum, nor by its speakers who denigrate it as a 'rubbish language'.

1.4.2 DRM Communilect

Having noted the universal switch to Kriol as a first language in the sub-40 generation, let me add that there is a perceptible shift back to the re-acquisition of NgK that begins to show, mostly amongst young women in their early twenties. The language variety acquired by these women is referred to by them as 'Ngan'gikurunggurr'. I call it 'New Ngan'gikurunggurr' to reflect some minor differences that exist between it and the traditional NgK of their parents' generation. It has near standard NgK phonology, but both the apical (retroflex/voiced) and laminal fricatives have merged into an apico-alveolar [s], and the minor cluster /-rr + s-/ has reduced to a voiceless alveolar stop [t] (e.g. ngirrsibem → ngitibem) The lexicon of New Ngan'gikurunggurr is predominantly drawn from NgK and
NgW, but additionally includes a fair amount of Marrithiyel, e.g. makali 'MM' (cf. Ngan'gityemerri kawu).

One of the most characteristic features of this speech variety is the widespread use of the Marrithiyel nominal semitative postposition gimin, replacing the Ngan'gityemerri suffix -gumu/-gimi(K). Gimin is used as a temporal clause subordinator in New Ngan'gikurunggurr\(^{20}\), a function that it shares with NgK -gimi, but not with Marrithiyel gimin (Green: pers. comm.). In recent years I have begun to notice some of these features of New Ngan'gikurunggur beginning to percolate upwards, creeping into the speech of some older women.

1.4.3 Language variety treated in this grammar

The language described in this grammar is the conservative Ngan'gityemerri spoken by people over the age of forty (most informants' names are listed in the acknowledgements). The language variety referred to in 1.4.2 as New-Ngan'gikurunggurr, is not treated in any detail here.

Throughout this grammar I treat the two dialects, Ngan'giwumirri and Ngan'gikurunggurr, as a single language. However rather than attempt to treat them equally, I have chosen to focus on NgW and refer specifically to NgK only where it differs from NgW in any significant way.

1.5 Fieldwork Methodology and Grammar Writing
1.5.1 Getting started

In 1981 I had just completed a Batchelor degree in linguistics, and found myself inspired by one of Bob Dixon's courses in Aboriginal linguistics to do some real fieldwork of my own. Wary of committing myself to a post-graduate course, I canvassed around the ANU linguistics department to find someone who I could accompany on their fieldtrip. This I felt would satisfy my curiosity, giving me a taste of fieldwork, and at the same time leave me in a position that I could back out of, if need be. Ian Green took me up on my enthusiastic but completely deceitful promises to cook, do the washing, and write up his paradigms and verb cards etc, and took me to the Daly on the first of his Ph.D fieldtrips. Ian was learning Marrithiyel from Bill Parry, so we ended up in Bill's camp on the west side of the Daly river. Three elderly women in Bill's camp (including his wife)

\(^{20}\)Several of the features of New Ngan'gikurungguurr that are mentioned here, including this function of -gim in (H&K 1988:219), can be found in Hoddinott and Kofod's grammar of Ngankikurungkurr. Their main informant is a 'school generation' New Ngan'gikurunggurr speaker.
were all speakers of NgK. It was Bill's casual suggestion that they teach me their language, that decided my topic of study. I was wildly excited, but having had no previous contact with Aborigines, I had everything to learn. The following year, 1982, I returned to ANU and wrote up the results of this initial trip as an Honours sub-thesis entitled 'The Basic Morphology of "angikurungurr".

1.5.2 Fieldwork for this thesis

This doctoral study involved two fieldtrips, six months in 1986 and seven months in 1988. On both occasions I was based at Peppimenarti, but additionally spent considerable time in the communities of Wudi Gapil Diyerr and Nauiyu Nambiyu (Daly River Mission). I began with the intention that NgK would again be the main focus of my study, with perhaps some attention given to NgW for comparative purposes. However NgW proved to be so interesting, particularly with respect to auxiliary inflectional categories, that it quickly became my primary focus.

A contributing factor underlying the decision to work on NgW was my meeting up with Robert Daly. Having first questioned me about my work, he quietly appointed himself as my teacher, and quickly became my principal informant. Robert has an affinity for language matters. In addition to being a natural raconteur, he set me high standards of pronunciation and grammatical precision. My failure to meet these standards was met with a polite silence that was more crushing than had he ranted and raved. Taking his role very seriously, he was never vague in responding to my questions - if he needed time, he'd tell me to wait, then surprise me with an answer days or weeks later. Robert was no longer working21 and had a fair amount of free time, so we spent most of every day for 13 months in each other's company. Interspersed with the general chatter, chores and business of day-to-day camp life, much of this time was spent in semi-formal elicitation22 and recording and transcribing narratives. We also travelled

21Robert was probably born about 1934. I am sure he has a clear idea, but to my surprise is very shy about his age and will not tell me. Like most men in the area he has had a varied career, working on most of the cattle stations in the Daly/Fitzmaurice region, with bouts of fishing and croc-shooting in between.

22There are two reasons why I do not fully agree with those who query the validity of elicited material and only rely on texts for grammar writing. Firstly, this language has such complex morphological paradigms (over thirteen hundred unique 'bound subject + auxiliary root' sequences), that one might not encounter the spontaneous occurrence of all forms in twenty years of text collecting. Secondly, Aborigines in the Daly region have not only a high degree of multilingualism, but concomitantly, are somewhat accustomed to the abstract discussion of aspects of language use. Much time is given to comparing how the same thing is said in
widely around most of the NgW estates, combining jobs like hunting and collecting ochres/firewood with some site-mapping, fulfilling Robert's custodial role in certain estates, and the odd bit of fishing. Patrick Tyabada frequently accompanied us on these trips, contributing his own stories and general hilarity. While the bulk of my NgW data comes from a small number of informants, I have regularly tested its acceptability within the wider community of NgW speakers (see acknowledgements).

Most of the Peppi community took an interest in my developing language skills, making an effort to avoid speaking English to me, and randomly testing my knowledge of words and expressions. My more spectacular errors (quite unrepeatable) featured regularly in community gossip. This level of interest, though occasionally embarrassing, greatly improved my conversational fluency in NgW.

From the start Ngan'gityemerri people have always been keen to have their language 'written down'. Although I have always been encouraged by this expression of support, initially I felt uneasy about what seemed to be two unstated inferences: that the language would somehow be saved by this process, and secondly that my thesis would constitute some sort of language resource that they could refer to like a dictionary. My explanations of what my thesis would and would not be, produced varied responses. Some people were plainly puzzled; if I was not producing a resource for native speakers, or drills for language learners, just who would use this book? Others were quick to point out my obligations to make available those products of my work that were of more immediate use, texts and wordlists particularly.

At Peppimenarti I was actively encouraged to work in the school, and together with Terry Sam began a school-based language program. Although we did develop and teach the orthography used here and commence wordlists for each child, the main focus of this program has always been on different 'languages'. Within a single 'language', people listening to a narrative will, in whisper, query the acceptability of unusual auxiliary(+bodypart)+verbroot combinations, and derisively hoot at erroneous or implausible ones. Within this context, my discussions with informants about the acceptability of particular grammatical constructions, was not considered particularly odd by them. Of course the responses I got were subject to all sorts of variables, and where these were uncontrollable, I have avoided relying on this material at all, unless natural contexts could verify them. So while much of the description contained in this thesis is based on the grammar of narrative text, and most of the examples cited are taken from recorded texts, my understanding of such issues as bodypart incorporation and auxiliary semantics in particular, owes a significant debt to the process of solid formal elicitation.
fostering oral rather than written language skills. The school has been building a collection of video resources, with the assistance of the National Aboriginal Languages Program, that one day may be 'patched in' to local television transmission.

1.5.3 Approach to Grammar Writing

My approach to writing a grammar of Ngan'gityemerri falls fairly squarely within the traditions of what Wilkins (1989:58) has referred to as 'The ANU School of Australian Grammatical Description'. This tradition places a high priority on the use of descriptive practices that best reflect the linguistic system in question, and are sensitive to the cultural context of its usage. Grammars written within this tradition are highly eclectic in their use of linguistic theory, drawing on whatever grammatical tools best achieve these descriptive aims, without being overly concerned about, as Evans (1985:xii) puts it, "whether they all come from the same toolkit". Writers within this tradition employ, and acknowledge their use of, whatever theories best handle the particular aspect of the language they are describing. At the same time they are wary of 'fad' theoretical terminology, believing that a grammatical description written in the most straightforward language and containing a large number of natural language examples will best allow the reader to judge the accuracy and internal consistency of the description.

I began this description of Ngan'gityemerri with the intention of providing a full reference grammar of the language. I have been forced to reduce the scope of this work by the realisation that languages having such morphological density as this one does, cannot be adequately treated within the thesis wordlength limitations imposed by the university. This thesis cannot really be called a 'grammar', for it does not adequately cover some aspects of the language, and others not at all. I have given fairly detailed descriptions of the phonology and nominal and verbal morphology. As this is a language in which the verb is "where the action is", I have further chosen to explore two of the most interesting aspects of the verb; the incorporation of bodypart terms into the verbal complex, and the semantics of the auxiliary verbs.

1.6 Previous work on Ngan'gityemerri

Gerhardt Laves

Gerhardt Laves was the first linguist to work on Ngan'gityemerri. In 1931 he collected some 200 pages of vocabulary, auxiliary paradigms, grammatical notes and (largely untranscribed) texts, in Ngan'gimerri, the speech variety of the now extinct rak-Merren patri-line. Laves returned to
the USA later that year, and appears not to have published anything from his Australian data. His works, including detailed studies of Matngela, Karriyarri, Kumbaingir and Nyungar, remained in the basement of the library of the University of Chicago until 1985 when Mark Francillon brought them to the notice of the Australian Institute of Aboriginal and Torres Strait Islander Studies (then AIAS), who obtained copies in the following year.

Of all the previous work on Ngan'gityemerri, this is by far the most exciting, both for the quality of the analysis, and the diachronic evidence it provides for changes within the Ngan'gityemerri verb structure (see Reid, to appear). Laves had a good ear and a reasonable grasp of the phonology. He never really came to grips with the nature of the stop contrast, but had the presence of mind to keep his transcriptions phonetically oriented rather than risk phonemic under-differentiation. His segmentation of, particularly, the partially synthetic verbal morphology was quite perceptive, even to the extent that he was able to distinguish between complex strings of morphology that happened to have the same surface form.

Laves' fieldnotes are the only previous work that has made any significant contribution to this thesis.

Arthur Capell
Capell collected some undated fieldnotes on what is probably Ngan'gimerri, but may be Ngan'giwumirri. These have never been published and delays in the organisation of Capell's literary estate have regrettably prevented me from seeing his work.

Darrell Tryon
As part of his survey of the 'Daly Family Languages', Tryon collected NgK and NgW data during six month fieldtrips in 1967 and 1969. This work was primarily aimed at a lexico-statistic classification of these languages, but Tryon also provided the first basic description of the phonology, nominal morphology, noun classification, verbal morphology and auxiliary classes. Tryon's work on NgK and NgW is presented in Tryon 1968, 1970 and 1974.

Bill Hoddinott and Frances Kofod
Hoddinott and Kofod collected a vast amount of data on primarily NgK, but also NgW, between 1967 and 1982. Hoddinott was preparing a grammar of NgK at the time of his death in late 1984. Kofod carried on with the project and a grammar entitled 'The Ngankikurungkurr Language (Daly River Area, Northern Territory)' (Pacific Linguistics, Series D, No. 77), was
published in 1988. My analysis of this language differs from their work in numerous ways (some minor, some major). It is not possible to provide a thorough critique of the Hoddinott and Kofod analysis within this thesis. Consequently, although I’ve made occasional reference to their work at appropriate places through the text (usually as footnotes), no attempt has been made to rigorously defend my analyses in view of their previous work. To indicate the nature of the difficulties with their analysis, a rather ad hoc selection of four points is given below.

- H&K do not acknowledge that the speech variety they describe is a mixture of the more traditional language of older speakers and the modern variety that I call New-Ngan’gikurunggurr (see 1.4.2.)

- H&K’s phonology chapter is clearly a jumbled collation of competing draft analyses. Kofod acknowledges in the preface that she had the difficult task of producing a final draft from assorted earlier versions. However her claim to have done so is not borne out in the text. In the discussion of stop consonants, for example, successive paragraphs jump unannounced from a ‘voice’ analysis to a ‘length’ analysis. The claim (p 10) that “voiced and voiceless phonemes contrast initially and medially” is followed (p 11) by the observation that “stops are normally long in medial...position” (the latter claim suggestive of their being no contrast at all).

- Ngan’gityemerri is a head-marking language that obligatorily cross-references core arguments on the verb with bound pronominal affixes. The pattern of core argument crossreferencing is strictly nominative/accusative. Both S and A arguments are cross-referenced by a single set of prefixes to the auxiliary root. Arguments in O function are cross-referenced with another set of suffixes to the auxiliary root. H&K claim that Ngan’gikurunggurr is an ergative language (H&K 1988:205). They base their claim on the function of -ninggi, an enclitic which attaches to nouns filling instrumental and agentive roles. Having the primarily discourse function of clarifying agency, -ninggi is not an obligatory NP constituent, nor is it precluded from attaching to nouns that are the subjects of low-transitive verbs. To base a claim about ergativity solely on this discourse marker, and ignore the verbal cross-referencing that is the primary mechanism for encoding core participant roles in Ngan’gityemerri, is unsatisfactory.

- H&K’s analysis of auxiliary-final nasals is particularly weak. Although they correctly hear nasal gemination across the boundary between the subject number marker and the auxiliary root (H&K p 40), their response to the same phenomenon at the auxiliary-final boundary is to write a morphophonemic rule that reduces underlying geminate nasals to single
nasals (H&K p 28). In fact the maintenance of the single/geminate nasal contrast in this position is crucial. The result of their rule would be to neutralise the primary distinction between realis and irrealis auxiliary categories. Additionally, H&K fail to hear the contrast between auxiliary-final -m (present) and -ny (perfective) in Ngan'giwumirri, listing them (H&K p 238-9) as simply variants. As a consequence of this they miss the important fact that Ngan'giwumirri auxiliaries have four tense/aspect/mood inflectional categories, with two of these (present and perfective) being formally neutralised in Ngan'gikurunggurr.

William Callan

William Callan deposited a manuscript at the AIAS (under heavy access restrictions) entitled 'A grammar of Ngankikurunguru'. This appears to have been collated at the request of the Daly River Mission and in some connection with the NT Arts and Heritage Museum (Callan may have been a teacher at the DRM school at the time). This manuscript contains no date, but quotes Tryon, so it was probably written in the early 1970's.

This is a highly amateurish piece of work based on a very meagre understanding of the phonology and morphology. At a total length of 44 pages, including auxiliary paradigm charts, it does little to fulfil the promise of its title. At best Callan had a poetic turn of phrase generally absent from contemporary grammars, as evidenced in this quote taken from his account of vowel allophony.

"perhaps the consonants are like the rocks on the riverbed and the vowels are the water spilling through, sometimes clear and at other times a blend of the sands and silts upstream"

Robyn Reynolds

As a sister at the Daly River Mission, Robyn Reynolds spent a year (1979-80) developing an orthography and some basic literacy materials in NgK. She apparently was under pressure to complete this project within twelve months, and these materials suffer from being drawn up at a time when her understanding of the phonology and morphology was only just beginning to develop.

School of Australian Linguistics

Karen Courtenay and Barry Alpher collected a little NgK data whilst working at SAL (in the late 1970's ?), with the view to developing an orthography. I have not seen their fieldnotes.
1.7 Word Classes

In Ngan'gityemerri five major word classes can be identified through formal criteria, especially the capacity for certain word class members to bear particular inflectional morphology.

Nominals
- nouns
- adjectives/numerals
- demonstratives
- pronouns

Verbs

Adverbs

Particles

Interjections

The open class of nominals are generally identifiable through their ability to take the case inflectional enclitics examined in 6.1. The nominal sub-classes can be distinguished by restrictions on their ability to fill certain positions within the NP. While nouns can function as NP head, adjectives cannot. Within the NP, specific nouns may be preceded by generic nouns, and followed by adjectives, then numerals. Demonstratives and pronouns, when functioning as modifiers, tend to follow adjectives, though it is rare to find more than two head modifying elements within a single NP in natural discourse. Ngan'gityemerri has just the single series of free form pronouns treated in 9.1. While sharing the inflectional possibilities of all nominals, pronouns behave like nouns in respect of their capacity to function as the head of an NP, and are like adjectives in respect of their possessive function (see 9.1.2). Demonstratives, like pronouns, can variously function as noun-like NP heads, or adjectivally as modifiers of NP heads. The adjectival function of demonstratives and pronouns is not morphologically distinguished from their head function, except in their ability to show head noun class concord. General adjectives can, in addition to modifying nouns, be used adverbially to modify verbs. Compare nginifiny 'true' in 1 and 2.

1 ngan'gi nginifiny dim -tyerrakul
   story  true  3sgSit -talk
   SU Pres
   He's telling a true story.

2 yirrigi -dada-nyine-pe nginifiny
   2plSit dl-sing -FOC -Fut proper
   SU IrrSU
   You two sing it properly now!
Adjectives further differ from the other nominal subclasses in their capacity to form verb stems. Compare the adjectival and verb stem functions of *yubu* 'good' in 3 and 4.

3  mudiga yubu werrmim-baty  
   *car*  *good*  *3plHands-hold*  
   **SU Pres**  
   They have a good car.

4  deminy -ngi-yubu  
   *3sgHands-1sg-good*  
   SU Perf  DO  
   (The doctor) made me well.

Note that certain gender-unspecified nouns, like the life-stage/condition terms 'youth', 'cripple', 'orphan' etc, show borderline adjectival properties, in that they cannot function as an NP head in the absence of a gender prefix.

Ngan'gityemerri verbs primarily denote kinds of activity and process. The experience of emotion is thought of as undergoing a process, thus 'being happy or 'being sad' are expressed as transitive verbs in which the undergoer/experiencer is cross-referenced as object.

Verbs in Ngan'gityemerri can formally be identified by the obligatory presence of the auxiliary unit. Verbs can consist of just an auxiliary (simple verbs), or more commonly, of an auxiliary in combination with a verb stem (complex verbs). There are 31 auxiliaries in Ngan'gityemerri and approximately 170 verb roots (not counting adjectives). Ten of the 31 auxiliaries can stand as simple verbs. The few verb roots used in isolation of auxiliaries as imperatives (sit!, get up!, etc), are viewed here as interjections.

Adverbs are readily distinguishable from verbs in having no auxiliary, and from nominals in their inability to bear either noun class or case affixes/clitics. Aspectual adverbs like *wakay* 'completely' and *ferrp* 'continually', and temporal adverbs like *fal* 'all night' and *tyip* 'all day', always follow the verb, but the motional/positional adverbs *kak* 'in motion' and *peyi* 'in place' always precede the verb. Manner adverbs can be freely ordered either before or after the verb, as shown with *musyari* 'slow' in 5.

5  ngaganim musyari  or  musyari ngaganim  
   *1sgGo*  *slowly*  
   SU Pres  
   I'm going along slowly.
Note that in their preverbal positioning manner adverbs may be indistinguishable from qualitative adjectives. To example 1 above therefore, we can add another possible translation - 'He's telling the story properly'.

Particles, treated in chapter 7, generally precede the particular construction over which they have operational scope. They are normally ineligible for any kind of nominal or verbal inflection, however clause initially the negative particle minbe/minde(K) frequently attracts such verbal enclitics as the temporal focus marker -nyine/-kana(K) and the past and future tense markers, -tye and -pe/-ngini(K). 6 b) is therefore an acceptable equivalent of 6 a).

6 a) minbe ngambani-nyine-pe b) minbe-nyine-pe ngambani
    \[ \text{Neg} \quad \text{Idlinc Go} \quad \text{-FOC-Fut} \quad \text{Neg} \quad \text{-FOC} \quad \text{-Fut} \quad \text{Idlinc Go} \]
    \[ \text{SU} \quad \text{Irr} \quad \text{SU} \quad \text{Irr} \]
    Let's not go then ! Let's not go then !

The small closed class of interjections, listed in 7.11, are independent sentential units that do not interact syntactically with any other word class forms.
Chapter 2

Phonology

2.1 Segmental Phonology

2.1.1 Vowels

Ngan'gityemeri has four contrastive vowel phonemes, /i/, /e/, /a/, and /u/, divided by the parameters front/back and high/low\(^1\).

\[
\begin{array}{c|c}
\text{i} & \text{u} \\
\hline
\text{e} & \text{a}
\end{array}
\]

Minimal pairs exemplifying these contrasts are set out in Table 1 below.

\[
\begin{array}{cccc}
\text{tyi-breastmilk} & \text{ebe-marchfly} & \text{wa-paperbark} & \\
\text{tye-past tense} & \text{aba-younger} & \text{wu-cloud} & \\
& \text{brother} & & \\
\text{adiny-leech} & \text{wewe-vomit} & \text{wuu-dog} & \\
\text{adany-shark} & & & \\
\text{yedi-man} & & & \\
\text{yedu-sweet} & & & \\
\end{array}
\]

Table 2-1

As might be expected of a four vowel system, Ngan'gityemeri's vocalic phonemes allow a range of latitude in their phonetic realisation. However this range is certainly not as great as it could be, in that much of

---

\(^1\)Many of the Daly languages differ from, for instance the Kunwinjku languages, in having /a/ as a phonological back rather than front/central vowel. Tryon (1970) and Birk (1976) give /a/ as a back vowel for Merranunggu and MalakMalak, for example, although Green (1989:15) demonstrates that Marrithiyel /a/ has a significant fronted allophone (see also the footnote on p31).
the 'vowel space', in the sense of Ladefoged (1975:67), remains unexploited. 
For instance although unstressed vowels tend to be slightly centralised, 
there are no truly central allophones, all normal phonetic realisation being 
in the periphery of vowel space. The main opposition found is between sets 
of tense and lax allophones, conditioned by word position.

\[ /i/ \rightarrow [i] \] The tense, more extreme allophone occurs word 
finally and preceding the laminal semivowel only.

\[ 2-1 \] miyi - plant food [miji] 
aliyi (K) - fat, marrow [aliji] 
aniyen - sandfrog [anijen] 
detyeri - ear [de\-ce\-ni] 

\[ \rightarrow [u] \] Elsewhere, including preceding the laminal stop, 
nasal and fricative, we find the lax allophone [u].

\[ /u/ \rightarrow [u] \] The tense allophone occurs only word-finally;

\[ 2-3 \] nendu - horse [nendu] 
afu - whipsnake [afu]
however where word-final-syllables are 
reduplicated, the penultimate vowel retains the 
tense quality.

\[ 2-4 \] awululu - pigeon sp. [awululu] 
dem-bubu - He fetches water [dembubu]

\[ \rightarrow [o] \] Medially /u/ is realised as the lax allophone [o].

\[ 2-4 \] kuru - water [kuru] 
muk - sore [mok] 
angugutu - maggot [angugutu]

\[ \rightarrow [o] \] Occasionally as free variants of the above 
allophones, /u/ is realized, with lower tongue 
configuration, as [o]. This has only been observed
in a small number of words where /u/ is either word-final, or precedes syllable-final r.

2-5 yubu - good [jœbu- jəbo]
yu - yes [ju- jɔ:] wur- - Fem. cl. mkr. [wɔɾ - wɔɾ]

/u/ does not occur word-initially.

/a/ → [ʌ] Word finally (and therefore usually unstressed) /a/ tends to be weakened to the half open, central/back - mid/low vowel [ʌ].

2-6 walalma - hunting [walalma]
palada - syphilis [palada]

→ [a] Initially and medially /a/ is an open low back vowel [ɑ];

2-7 agadırr - green ant [avadıɾ]
abafa - witchety grub[abaɾaɾ]
adarri - liver [adari]

except when it precedes laminal consonants. This is discussed in 2.1.2.

/e/ → [æ] In certain environments /e/ can be realised as the lower front vowel [æ].

2-8 eke - uncle [ækæ]
wewe - vomit [wæwæ]
ebe - marchfly [æbæ]
pendela - placename [pændela]

As a free variant, the occurrence of [æ] cannot be satisfactorily accounted for in terms of any acoustic or articulatory conditioning factors. However, as 2-8 demonstrates, note that its occurrence is frequently associated with the presence in its

2Although [æ] is clearly an allophone of /e/ in Ngan'gityemerri, its phonemic status in other Daly languages is more problematic. In Marrithiyel (Green 1989:15) [æ] is given as an allophone of both front-mid /e/ and open-unrounded /a/. Note though that these same realisations of phonemic /e/ and /a/ in Marrithiyel are environmentally distinguishable and therefore do not represent neutralisation of the contrast between /e/ and /a/.
immediate environment of peripheral consonants.
The majority of examples of this front vowel lowering result from the partial operation of the Vowel Harmony rule (see 2.4.4). When the 'animal' class-marker a- prefixes a nominal root of which $V_1$ is /e/, this rule operates to harmonise /a/ with /e/. In many instances /a/ is fronted to [æ], but fails to be fully raised to the target articulation of [e].

2-9  a-werrmisya - saltwater crocodile [æwɛrmɪsya]
a-perrperr - Burdekin duck [æpɛrørpɛr]

→ [e] Elsewhere /e/ is consistently realised as [e].

2-10  engete - forest kingfisher [ɛŋɛtɛ]
egeningge - magpie goose [ɛgenɪŋɡɛ]
merrepen - Sand palm [mɛrrepen]

From these observations on vocalic realisation, it is apparent that the conditioned allophony of /e/ is quite different to that of the other three vowel phonemes. /i/, /u/ and /a/ all have as their major allophones a pair of tense and lax realisations, which are essentially conditioned by the feature '± word-final'. In contrast, the only allophonic variant of /e/ appears to be triggered by the rather obscure condition that it be stressed and in the immediate environment of a peripheral non-nasal consonant.

2.1.2 Diphthongs

Of the four Ngan'gityemerri vowels, e, a and u are subject to diphthongisation in certain environments. The environment that triggers this process varies for each vowel, and none of the resultant diphthongs are phonemic. The following discussion of diphthongs as conditioned allophones rightly belongs then, in the previous section 2.1.1. They are treated separately here purely for clarity.

As is common in Australian languages, phonetic diphthongisation primarily affects back vowels. In Ngan'gityemerri these three vowels can be ranked in terms of the frequency of, and the number of environments in which, they diphthongise, in the order a > u > e. The low front vowel is only minimally diphthongised, and in only a single narrowly defined environment. The high front vowel is not audibly subject to
diphthongisation at all. As all diphthongisation is triggered by articulatory preparation for laminal tongue configuration in the following consonant, this ranking accords with our expectations, in the sense that it is ordered inversely to the qualities of tongue height and frontedness that are associated with the quality 'laminal'.

In Ngan'gityemerri we find the diphthongs [at] and [oi] occurring word-finally. Patterning these diphthongs with the behaviour of back vowels occurring before the laminal consonants ty, sy and ny, we analyse them as sequences of /a+y/ and /u+y/ respectively.

\[
\begin{align*}
/a/ & \rightarrow [at] - \text{before any syllable-final laminal.} \\
2-11 \quad & \text{abatymirri} \quad \text{blackduck} \quad [abatcmiri] \\
& \text{adany} \quad \text{shark} \quad [adat\eta] \\
& \text{wakay} \quad \text{finished!} \quad [wakat] \\
\text{- intramorphemically before syllable-initial sy and y.} \\
2-12 \quad & \text{wasyan} \quad \text{body hair} \quad [wat\j\eta] \\
& \text{Fayi} \quad \text{girl's name} \quad [faji] \\
\text{- intermorphemically before y.} \\
2-13 \quad & \text{a-yipiri} \quad \text{bullant} \quad [aijip\ui] \\
& \text{a-yiwusye} \quad \text{dragonfly} \quad [aij\wai}\j\e] \\
& \text{a-yinnimbi} \quad \text{hornet} \quad [aij\j\nim\bi] \\
& \text{but not before ty, sy or ny.} \\
2-14 \quad & \text{a-tyambuli} \quad \text{grasshopper} \quad [acamb\ol\i] \\
& \text{a-syi} \quad \text{vagina} \quad [\alpha\j\i] \\
& \text{a-nyirri} \quad \text{scorpion} \quad [\eta\j\ri] \\
\end{align*}
\]

\[
\begin{align*}
/u/ & \rightarrow [oi] - \text{before any syllable-final laminal;} \\
2-15 \quad & \text{yemi-wuty} \quad \text{pour it out!} \quad [jem\\wouc] \\
& \text{mawuny} \quad \text{ironwood} \quad [maw\j\nu] \\
& \text{damuy} \quad \text{eye} \quad [dam\j\ol]\i] \\
& \text{but never before a syllable-initial laminal.} \\
2-16 \quad & \text{futyeny} \quad \text{blood} \quad [\j\ou\j\nu] \\
& \text{awuyi} \quad \text{possum} \quad [\aw\j\ol]\i] 
\end{align*}
\]
/e/ → [et] - before syllable-initial y only.

2-17 efeyi goanna sp. [e<etji]
meyeninggi a hand's worth [mei<eniqgi]
peyi in place [peji]

Nominal classmarking and vowel harmony patterns both have implications for the occurrence of diphthongs. As real appreciation of this requires some understanding of classmarking and vowel harmony, discussion of these implications is deferred to 2.4.4.

In conclusion then we note that all diphthongs in Ngan'gityemerri are allophones of the vowel phonemes, conditioned by following laminal consonants. This conditioning laminal is more likely to be syllable-final rather than syllable-initial, and more likely to be the semivowel y than the stop ty, fricative sy, or nasal ny.

The domains of the four vowel phonemes, their allophones and conditioned diphthongs, are demonstrated in Figure 2-1 below.

![Figure 2-1](image-url)
2.1.3 Consonants

Ngan'gityemerri has the 19 consonant phonemes set out in Table 2-2 below.

<table>
<thead>
<tr>
<th>Articulator manner</th>
<th>Bilabial</th>
<th>Apical</th>
<th>Laminal</th>
<th>Dorsal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop</td>
<td>p</td>
<td>t</td>
<td>ty</td>
<td>k</td>
</tr>
<tr>
<td></td>
<td>b</td>
<td>d</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f</td>
<td>s</td>
<td>sy</td>
<td>g</td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td>n</td>
<td>ny</td>
<td>ng</td>
</tr>
<tr>
<td>Lateral</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flap/Trill</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glide</td>
<td>w</td>
<td></td>
<td>y</td>
<td></td>
</tr>
</tbody>
</table>

Table 2-2

Sections 2.1.3.2 - 2.1.3.5 below look at the phonetic realisations of these consonant phonemes. First though, I comment on articulatory types.

2.1.3.1 Prominence of Active Articulators

In the descriptions of many Australian languages 'place of articulation' is typically viewed as a significant criterion in the analysis of consonant phonemes. This term puts implicit and, for Ngan'gityemerri, inappropriate focus on the passive articulator. In both Ngan'gikurunggurr and Ngan'giwumirri, which make no contrastive distinction between alveolar and retroflex, or (inter)dental and palatal, there is nothing to be gained by making an analysis in terms of passive articulators. In preference we have four types of 'active articulation', one involving both lips - 'bilabial', and three involving types of tongue configuration - 'apical', 'laminal' and 'dorsal'.

This type of system that focuses on tongue configuration, allows for a wide range of mouth-roof space within which the tongue can make its contact (or approximation). The contact point of apical phonemes thus ranges from alveolar to postalveolar, and that of laminal phonemes ranges from interdental to palatal. It is only at the allophonic level that we need invoke the criterion of 'place of articulation'. Elsewhere throughout this work reference to phoneme types is made only in terms of active articulators.
2.1.3.2 Realisation of Obstruent Phonemes

/p/ - The bilabial stop \([p^h]\) is always voiceless, aspirated and long with no variation in closure type.

/b/ - The bilabial stop \([b]\) is always voiced and unaspirated, and is consistently shorter than the voiceless stop. However it exploits durational difference to a far lesser degree than is found for other articulator types (see 2.2.2). /b/ shows less fluctuation in closure type than do the other voiced stops, being always fully stopped.

/f/ - is a bilabial fricative \([\phi]\), lightly spread and with a small degree of lip tension. Observation of speakers' lip movement shows this sound to be truly bilabial, in that the teeth are not visible and the upper and lower lips are aligned and make even contact. However this sound has some of the turbulent quality (auditory correlate of energy higher in the spectrum) that is normally associated with labiodental articulation. The presence of this turbulence suggests that the lip spread and tension pulls the top lip sufficiently tightly against the upper teeth that they act as joint articulators in opposing the bottom lip. Even if the upper teeth do not actually come into contact with the lower lip, they at least approach it closely enough to generate wake turbulence. Among the younger speakers of Ngan'gityemerri, (who have been exposed to a considerable amount of Standard English through their schooling and, more recently, through television), this fricative is usually realised as a true labiodental \([f]\).

As has been noted for all other Australian languages that have both a stop contrast and fricatives, the contrast does not extend to the fricatives (Dixon 1980:215). /f/ is always voiceless initially, and varies between voiced and voiceless when intervocalic or post-liquid. /f/ only occurs post-nasally across a morpheme boundary in which environment it remains voiceless.

2-18  funggulu (NgW) - sugarbag \([\text{funggulu}]\)
   fepi - rock, hill \([\text{fepi}]\)
   fenggu - long \([\text{fenggu}]\)
This tendency towards voicing assimilation (assuming [ϕ] to be the unmarked allophone), is much stronger in Ngan'giwumirri than it is in Ngan'gikurunggurr. A text count of word medial /f/ indicates about 80% are voiced in Ngan'giwumirri, compared with only about 15% in Ngan'gikurunggurr. Although this variation in the degree of glottal pulsing through the approximation duration of medial /f/ is biased differently in each dialect, it is still 'free' variation in the sense that it is non-contrastive within the phonological system of each dialect.

Finally, a very minor allophone, a voiceless bilabial fricative with labiodorsal secondary articulation [ϕ], has been recorded as a free variant of word initial [ϕ] in a single word only.

2-19 fa (K) - beeswax [ϕa] ~ [ϕʷa]

3We can further observe a type of 'fixed' variation, whereby certain cognate lexemes are invariably realised with voiceless /f/ in Ngan'gikurunggurr, and voiced /f/ in Ngan'giwumirri.

<table>
<thead>
<tr>
<th>NgK</th>
<th>NgW</th>
</tr>
</thead>
<tbody>
<tr>
<td>[aʃtui]</td>
<td>[aʃtudi]</td>
</tr>
<tr>
<td>[eʃeqguni]</td>
<td>[eʃeqguni]</td>
</tr>
<tr>
<td>[baʃon]</td>
<td>[baʃon]</td>
</tr>
</tbody>
</table>

- beetle (gen.)
- bandicoot
- ash, dust

These lexemes (and certain others) seem to be employed as language identificatory markers; that is, the minor phonetic differences between them are strictly and invariably maintained as evidence of the separate identities of the two groups, usually at other levels (eg, political). In discussion of these words, speakers will carefully point out that "we say it this way, but that other mob say it this way". So despite the non-contrastive nature of the feature ±voice among fricatives within the phonological systems of each of these languages, the same feature is employed cross-dialectically, within a subset of the lexicon at least, to flag linguistic identification. How, within the scope of the general lexicon, certain lexemes come to be employed in this manner remains a question for further study. Note though that these kinds of examples nicely illustrate Labov's observation that there is really no such thing as free variation, if social and stylistic variables are considered to constitute part of the conditioning environment.
We can partially account for the occurrence of this minor allophone by noting that this word is already marked as phonotactically odd, being one of only a handful of monosyllables, and one of only two beginning with /f/. The labiodorsal variant is unlikely to be the reduced form of an underlying disyllabic lexeme /fuwa/, because such a word would be equally phonotactically odd, as the labial semivowel is otherwise unattested between these vowels. And there are no other examples of [§*a] to suggest that all such underlying segments may have undergone reduction of this sort.

/t/ - is a long voiceless aspirated apical stop [th] with no variation in closure type.

/d/ - is a short voiced apical stop. Both /t/ and /d/, but particularly /d/, exploit a fairly wide range of mouth-roof contact points, from alveolar [d] to post-alveolar [d]. The degree of retroflexion found in apical stops is sensitive to the environment. I perceive initial and intervocalic /d/ to be more retroflex than post-nasal /d/, and /d/ after back vowels to be more retroflex than /d/ after front vowels. Intervocalic /d/ can be very short, especially in unstressed syllables, and in this environment is frequently reduced to an alveolar approximant [j]. This realisation of /d/ can be consistently distinguished from the post-alveolar continuant /r/ (also given below as [j]) by its shorter duration and lack of retroflexion.

/s/ - is a voiced retroflex fricative. This sound is described by Capell as a "retroflex rhotic with fricated release" (quoted in H&K 1988:16), and by Hoddinott and Kofod as a "retroflex fricative with rhotic release" (H&K 1988:16). Neither of these descriptions are particularly accurate in articulatory terms, if for no other reason than that neither fricatives nor rhotics have 'release'. I do agree with both authors though, that auditorily there is a definite r-colouring to the realisation of this phoneme. This in itself presents a descriptive problem as the

4Note that IPA (1989 update) provides no satisfactory mechanism for differentiating between alveolar and post-alveolar approximants.
feature '± rhoticisation' is normally thought of as an auditory quality of vowels rather than obstruents, acoustically measurable as a marked lowering of the frequency of the third formant (Ladefoged 1975:204). The acoustic correlates of the auditorily perceived r-colouring of this fricative phoneme have yet to be determined, so for this present study the presence of rhoticisation remains an auditorily-based observation only. In the absence of any phonetic conventions for attributing rhotic qualities to consonants, I transcribe this sound as [ʐ], using the IPA convention of the following continuant [i] (a convention intended for use with vowels). Note that I use this notation as a digraph representing a single sound, i.e. that the [i] follows the [ʐ] should not be taken to suggest that the rhotic quality represents just a transitional off-glide phase.

I rhoticise this sound by curling my tongue tip in a 'retroflex' fashion, then increasing the concavity in the upper surface of the tongue. I am also aware of slight tongue root retraction. The articulatory correlates of rhoticisation (and retroflexion for that matter) are a complex issue, as a variety of tongue configurational patterns seem to produce similar acoustic effects (Ladefoged 1975:71). While the rhoticisation of the fricative that I achieve in this way is quite acceptable to native speakers, I cannot claim that I do it the same way as native speakers, or indeed that all native speakers achieve this quality similarly.

Rhoticised obstruents are uncommon in Australian languages, reported outside the Daly area only by Busby (1979:25) for Yandruwandha and Evans (1985) for Kayardild (in Green 1989:18). However they have been noted in the phonological systems of several of the southern and western Daly languages, namely Marrithiyel (Green 1989:18), Merranunggu (Tryon: 1970:10) and Marrisyebin (Tryon 1974:95).

/s/ has an extremely low functional load in Ngan'gityemerri, appearing in my data in only a dozen lexemes. It cannot appear word initially, and in this restriction it contrasts with the other fricatives. All recorded instances of /s/ are intervocalic, either morpheme initial or morpheme internal. Morpheme initially it contrasts with /d/, /t/, /ty/ and /sy/;
2-20 a-si-minmin - bat sp.
a-dityibi - bandicoot
a-syí - vagina
a-tí - cod
a-tyindirrit - shortnecked turtle

but morpheme internally it occasionally appears as a variant of the apical tap /rr/.

2-21 madiwirri - play [madìwirri]-[madìwiri]

In the 'stand' auxiliary [t] occurs anomalously where underlingly two flap segments are ordered contiguously. Compare the singular and plural forms of the verb 'to be standing' in 2-22 below.

2-22 ngi-rr-bem - tyalak - I'm standing up
1sg Stand - upright
SU Pres

→ -rr- 'plural subject number' insertion gives underlying
{ngi-rr-bem-tyalak}
1sg -pl Stand - upright
SU SU Pres

→ ngirr-sibem - tyalak - We (pl ex) are standing up
1plex- Stand - upright
SU Pres

This example raises the possibility that this fricative has developed diachronically from a cluster of flaps, ie /rr/ + /rr/.

Its restricted word position potential and low functional load are additionally suggestive of fairly recent development.

However within the contemporary phonemic system we need to accord /s/ phonemic status to account for its contrastive use in such examples as asiminmin in 2-20 above.

/ty/- is a laminal stop; voiceless aspirated [ch] in word initial position and intervocalically, and short and voiced [j] postnasally. For those articulator types having a contrast between two series of stops, the post-nasal environment is 'neutralised'. For the laminals however, in the absence of a contrastive voiced laminal phoneme, we would specify [j] as a post-nasally conditioned allophone of /ty/.
The only other environment where voiced laminal stops are found is in a small set of borrowed male subsection names.

The fact that this initial occurrence is restricted to eight borrowed words is insufficient to motivate any attempt to account for voiced laminal stops within the allophonic rules, let alone accord them phonemic status.

Like the apical series /ty/ displays wide variation in its range of passive articulator. Most frequently it is palatal [c], though contact can be made at any point forward of there to a fully interdental [j] (or [ʝ] postnasally). Text transcriptions suggest that dental realisation of /ty/ is most frequent when it is both word-medial and morpheme-initial;

though, as 2-25 shows, it remains in free variation with [c]. In this position it occurs within a wide range of phonetic environments - stressed and unstressed, postnasally, framed by all four vowels, etc. It seems then that this dental as opposed to

5As these word initial voiced laminals are restricted to a finite set of well known terms, it has been decided not to introduce a new symbol to represent them in the practical orthography.
laminal articulation of /ty/ cannot be satisfactorily described in terms of either environmental or articulatory conditioning. Finally, we note a dialectal difference in the treatment of word and morpheme final /ty/. In Ngan'gikurunggurr word- and morpheme-final /ty/ is released, but in Ngan'giwumirri it remains unreleased.

2-26 a) ngerim - baty
   1sg Hands- hold
   SU Pres
   I hold it

   b) winni - batybity -tye
   3plSit -hold hold-Past
   SU Imp =sew
   They were sewing

/sy/ - is a laminal fricative. It has none of the rounded labial secondary articulation that is found in English [j,3]. Initially and intervocally this phone varies freely between voiceless [s] and voiced [z]. While we can observe a definite preference for initial /sy/ to be voiceless and intervocalic /sy/ to be voiced, these are not firm realisation rules. Like /f/, /sy/ only occurs postnasally across morpheme boundaries where it is always voiced.

2-27 syunggun - grey hair [cɔŋɡʊŋ]-[cɔŋɡʊŋ]
   asyarra - willywagtail [açara]-[açara]
   ngupun-syurr - I plucked it [ŋɔrɔŋɔrɔ]

Word initially, /sy/ is sometimes heard to be prestopped, ie. its realisation is the voiceless laminal affricate [cç]. So to the two variant realisations given in the first example of 2-27 above, we can add a third;

2-28 syunggun - [cçɔŋɡʊŋ]

Note that this allophone [cç] formally differs from the stop /ty/ only in the speed with which the tongue is withdrawn from the mouth roof, (a contrast that is very difficult for the

Furthermore, a single lexeme atya/ ngatya(K) - 'father', is universally realised with [j], without [c] ever appearing as a free variant.
native English speaker to hear). In normal (non-citation) utterances the release of /ty/ in word initial position is often indistinct, and can be indistinguishable from the affricate allophone of /sy/. This potential partial phonemic overlap can only be disambiguated by testing for acceptance of the other free variants of /sy/. Thus, in the examples in 2-29 below, we can determine that the initial phoneme is /sy/ by the acceptance of the free variant allophones [g] and [ʒ]. Likewise in the examples in 2-30 below, we can determine that the phoneme is /ty/ only by the non-acceptance of these variants.

2-29

<table>
<thead>
<tr>
<th>syirre</th>
<th>syiri</th>
<th>syewe</th>
</tr>
</thead>
<tbody>
<tr>
<td>syirre</td>
<td>syiri</td>
<td>syewe</td>
</tr>
<tr>
<td>behind</td>
<td>weapon</td>
<td>sea</td>
</tr>
</tbody>
</table>

2-30

<table>
<thead>
<tr>
<th>tyulut</th>
<th>tyagani</th>
<th>tyi</th>
</tr>
</thead>
<tbody>
<tr>
<td>tyulut</td>
<td>tyagani</td>
<td>tyi</td>
</tr>
<tr>
<td>hook spear</td>
<td>what ?</td>
<td>breast</td>
</tr>
<tr>
<td>[cçölot] - [cçölot]</td>
<td>*[cçölot / zölot]</td>
<td>[cçüagani] - [cçüagani]</td>
</tr>
<tr>
<td>[cçüi] - [cçüi]</td>
<td>*[cçüi / züi]</td>
<td></td>
</tr>
</tbody>
</table>

/k/ - is a long voiceless aspirated dorsal stop [kʰ] with no variation in closure type.

/g/ - is a dorsal obstruent with both stop and fricative allophones. Previous studies of this language have tended to treat /g/ as a stop, though in section 2.2, in an investigation of the stop contrast mechanism, I provide reasons for analysing /g/ as a phonological fricative. /g/ is predominantly realised as [γ] in intervocalic and post-liquid environments, and as [g] postnasally. Fully stopped [g] has been recorded intervocically only very rarely. In word-initial position /g/ is always realised as a fricative, freely varying in glottal activity between voiceless [x] and voiced [γ].

The following minimal and sub-minimal pairs illustrate the phonemic contrasts between the obstruents discussed in 2.1.3.2.

<table>
<thead>
<tr>
<th>Bilabial</th>
<th>Apical</th>
</tr>
</thead>
<tbody>
<tr>
<td>pi</td>
<td>ati</td>
</tr>
<tr>
<td>bi</td>
<td>adi</td>
</tr>
<tr>
<td>fi</td>
<td>asiminmin</td>
</tr>
<tr>
<td>head</td>
<td>cod sp.</td>
</tr>
<tr>
<td>thigh</td>
<td>spouse (address term)</td>
</tr>
<tr>
<td>twine</td>
<td>bat sp.</td>
</tr>
</tbody>
</table>
2.1.3.3 Realisation of Nasal Phonemes

/m/ - is a bilabial nasal [m]. It has no further allophonic variation.

/n/ - is an apical nasal, and like the other apical consonants varies in passive articulation from alveolar [n] to post-alveolar [ŋ]. Normally alveolar, it tends to become post-alveolar in the environment of back vowels and when pre-consonantal.

/ny/ - is a laminal nasal. Normally palatal [n], it is realised as the dental [ŋ] when it forms nasal-stop clusters with [t] and [d] which are allophones of /ty/.

/ng/ - is the dorsal nasal [ŋ]. Word-initially preceding front vowels /ng/ is occasionally realised with palatal secondary articulation.

Minimal and sub-minimal pairs exemplifying nasal phoneme contrasts are set out in 2-34 below.
2.1.3.4 Realisation of Liquid Phonemes

/l/ - is an apical lateral approximant [l] which has 'darkened' velarised articulation when syllable final. Like /n/ its realisation is increasingly post-alveolar in the environment of back vowels and when preconsonantal.

/rr/ - is an apical rhotic. Intervocally it is realised as the flap/tap [ɾ], word finally and preconsonantally it is the trill [r]. Voicing of the trill is usually dependent on the voicing of the following phone. Preceding voiced obstruents and nasals it is always voiced, but preceding voiceless obstruents the trill is usually devoiced. Word final [r] takes its voicing from the following phone in fast speech, but utterance finally or in careful speech it is usually devoiced.

/r/ - is the post-alveolar approximant [ɾ]. It has no other significant allophones.

Minimal and sub-minimal pairs exemplifying liquid phoneme contrasts are given in 2-36.

2-35

<table>
<thead>
<tr>
<th>firri</th>
<th>dream</th>
<th>[φiri]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ngurrrp</td>
<td>emu</td>
<td>[ŋɔrp]</td>
</tr>
<tr>
<td>yerrden</td>
<td>coolibah</td>
<td>[jerden]</td>
</tr>
<tr>
<td>yewirr</td>
<td>tree</td>
<td>[jewir]-[jewır]</td>
</tr>
</tbody>
</table>

2.1.3.5 Realisation of Semivowel Phonemes

/w/ - is the labiodorsal semivowel [w].

/y/ - is the laminal semivowel [j].

The semivowels are minimally paired in 2-37.

2-37

| wani-pe | He'll go. |
| yani-pe | You'll go. |
2.2 The Stop Contrast\(^7\) in Ngan'gityemerri

2.2.1 Introduction

Although a rare phenomenon among Australian languages as a whole, a fair number of Northern Territory languages have been described as having a contrast between stops at some places of articulation and in some word-positions. NT languages for which a stop contrast has been recorded are summarised in Cook (1987:28-40) and Austin (1988) as including Djinang (Waters 1980), Gupapuyngu (Lowe), Dhuwal (Heath 1980b), Ritharrngu (Heath 1980a), Ngandi (Heath 1978), Djalup (Morphy 1983), Ngalakan (Merlan 1983), Kunwinjku (Carroll 1976), Rembarrnga (McKay 1975), Wagiman (Cook 1987), Murrinh-patha (Walsh 1976), Ngan'gikurunggurr (Tryon 1974) and Warumungu (Simpson & Heath 1982)\(^8\). Additionally, two stop series have been reported for Burarra (Glasgow 1967), Ndjebbana (McKay 1979), Nakkara (Eather 1990), Gurrugoni (Green, R. in preparation), Jawony (Jaeger 1983) and Marrithiyel (Green, I. 1989).

The distribution and functional load of stop contrasts varies widely within these languages. For instance among the Yolngu and Kunwinjku languages, the distribution of the stop contrast is generally limited to medial position following sonorants. In all other environments the contrast is neutralised. In Murrinh-patha, Ngan'gityemerri and, to a lesser extent, Marrithiyel, the contrast is additionally found word-initially.

The nature of the stop contrasts in these languages has been variously described as voiced/voiceless, fortis/lenis, short/long, tense/lax, single/geminate etc. Some phonological analyses of these contrasts, including prosodic, geminate and segmental, are summarised in Cook (1987:38-48). Though briefly summarised below, interested readers are referred to Cook for a fuller description.

\(^7\)The manner in which a contrast between two series of stops is maintained in Ngan'gityemerri poses some unusual problems. Confusion over the issue of how the dorsal obstruents fitted into what otherwise seemed to be a straightforward VOT contrast prompted me to leave a full phonology chapter out of my honours thesis on Ngan'gikurunggurr. In writing up this chapter, I have been fortunate in having the opportunity to discuss my methodology and results with Andy Butcher. His input has significantly fashioned and improved my approach to this issue. Some minor discrepancies between his data and mine are discussed at appropriate places in the text. I gratefully acknowledge his contribution and duly note that any errors are mine, not his.

\(^8\)Cook and Austin include Mangarrayi in their lists, but Merlan in the source they cite states that "Mangarrayi differs from some neighbouring Armhem Land languages (Ngalakan, Ngandi) in that there is no significant fortis-lenis stop contrast" (Merlan 1982:178).
The prosodic analysis suggests that different stop types represent different underlying syllable types, one containing a glottal stop, and the other without. The phonetic glottal stop is a prosodic feature of the syllable, and is thus always syllable final. Fortis syllables contain an underlying syllable final glottal stop, to which the following stop assimilates and so also becomes fortis. Lenis syllables contain no glottal stop, and the following stop is thus lenis. The apparent fortis/lenis opposition results from the emergence of fortis stops in an environment originally restricted to lenis stops.

This analysis has some neat advantages for Yolngu (Walker 1984). It accounts for the distributional restriction of the contrast to the intercontinuant position, accounts for restrictions on certain types of consonant clusters, and also ties the distribution of the apparently separate feature 'glottal stop' into the same analysis as the stop contrast. It also requires only a single series of stops in the phonemic inventory, although as Cook points out, this is no real economic gain as the contrast still has to be marked on the syllables, and marking the syllables is really no more economical than marking the consonants themselves.

The geminate analysis, (based on McKay's description of Rembarrnga (1975)), assumes that every voiceless intercontinuant stop is actually an underlying homorganic voiced stop + stop cluster. From this cluster two rules are required to produce a simple voiceless stop: 1) a degemination rule, and 2) a subsequent devoicing rule. Like the prosodic analysis, the geminate analysis requires only a single series of stops in the phonemic inventory, the apparent contrast between stops on the surface resulting only from the application of the degemination and devoicing rules.

McKay's main evidence for this analysis is that both degemination and devoicing are observable phenomena across morpheme boundaries. McKay takes the devoicing and degemination of stop clusters that occurs across morpheme boundaries and, analogously, extends them to morpheme medial position.

The geminate analysis also explains the restriction of the apparent contrast to intervocalic and word medial position. By setting up clusters as the basis for the distinction, the resulting contrast is represented as reflecting phonotactic constraints that operate elsewhere in the language; ie. the stop contrast, like consonant clusters, is not permitted word initially and word finally; and the postnasal neutralisation of the contrast reflects the general constraint on clusters of nasal + stop + stop.

Merlan (1983:9) argues against McKay's extension of intermorphemic degemination and devoicing phenomena to the analysis of
morpheme-medial position clusters on the grounds that it has unjustified implications for medial consonant cluster distribution. Similar arguments make a geminate analysis untenable for Ngan'gityemerri stops. The main complications are firstly, that word-initial homorganic stop clusters would be allowable, but no other clusters are permitted in this position. Secondly, contrastive gemination of both voiced and voiceless stops, resulting from the application of the apical assimilation rule, operates as an independent phenomenon (see 2.2.2.2).

Segmental analyses define a phonemic distinction on the basis of articulatory differences. A distinction between two phonetically different types of stop is directly reflected by phonemic symbols, making the segmental analysis less abstract than either the prosodic or geminate analyses.

While segmental analyses vary widely, they tend to fall into one of two categories: languages for which 'voice onset time' is a consistent perceptual cue for the distinction of the contrast, and languages for which it is not. In the Australian literature 'fortis/lenis' has been widely used as a cover term for these latter type of languages. Descriptions falling into this category broadly seek to find some other phonetic property that will serve as a basis for the contrast. In some of the literature this property is given as 'fortis/lenis' or 'force of articulation', but without much attention being given to the actual phonetic data.

Jaeger, in her paper based on data from Zapotec and Jawony (Jaeger 1983), examines the phonetic factors involved in producing the distinction in these two languages, and seeks to find out whether "these phonetic properties are indeed a result of some unified and independently controlled phonetic dimension for which 'force of articulation' is the correct explanation" (loc. cit.). She concluded that for both of these languages it is 'duration', or the timing of the gestures involved in speech production, that is the independently controlled variable. As the only way in which any extra 'force' is required to sustain a gesture for a longer period of time, is in the circular sense that the overall energy expended by a muscle will be more if it fires for a longer period of time, she concludes that 'duration' is a phonetically more explanatory term than some vaguely defined notion of 'force of articulation'.

2.2.2 The Ngan'gityemerri Data

2.2.2.1 Single Stops

Phonologically the stop contrast in Ngan'gityemerri differs from the type of contrast found in Kunwinjku, Burarran and Yolngu languages in
two important ways. Firstly, the contrast is active in word-initial position. Secondly, the contrast between two series of stops needs to be viewed within the wider frame of a three-way obstruent contrast (for bilabials and apicals). For the bilabials and apicals the distinction between stop and fricative is unproblematic, however this is not so clear when it comes to the dorsal series. This section deals with the stops at all places of articulation in Ngan'gityemerri, with particular focus on the phonetic parameters underlying the dorsal contrast, and their implications for the phonological analysis of /g/ as either a stop or a fricative.

Looking briefly at previous work on the Ngan'gikurunggurr stop contrast, Tryon's (1974:230-1) account is puzzling in that he tentatively suggests that there is no phonemic contrast between voiced and voiceless stops, yet accounts for the existence of minimal pairs by suggesting that intervocalic voiceless stops should be interpreted as geminate. The inference seems to be that there is a phonemic contrast but it is maintained phonetically in terms of duration rather than VOT. However Tryon then goes on to note that Hoddinott believes that there "may exist a phonemic contrast" (op. cit.). His bracketed inclusion of a voiced stop series in the phonemic inventory gives /g/ as a stop.

Hoddinott & Kofod (1988:10-14) recognise the existence of a contrast in Ngan'gikurunggurr, but provide an even more confusing analysis. Beginning with the claim that "Stops are normally long in medial...position", they go on to describe a contrast in terms of 'voicing': Medially they find voiceless /k/ phonetically [k], contrasting with /g/, phonetically [g] ~ [x] ~ [y]. Initially they find /k/, phonetically [k], contrasting with /g/, phonetically [k] ~ [g] ~ [x], (i.e. initial [k] violates the bi-uniqueness requirement of classical phonemics in being equally attributable to either /k/ or /g/). They additionally claim the initial occurrence of [y] but do not attribute it to any phoneme (H&K 1988:13). H&K note the possible analysis of the dorsal contrast as one of stop vs fricative, but reject this possibility, again confusingly, citing "the widespread occurrence of the stop allophone...has led to a decision to describe the contrast as between /k/ and /g/ for the purposes (sic) of this study even though the most common realisation of /g/ in initial position is either (sic) [k] or [x]" (H&K loc. cit.).

In short, accounts of the (particularly dorsal) stop contrast in previous investigations of Ngan'gityemerri are confused, lacking phonetic and acoustic data, and are clearly inadequate. My own auditorily-based impressions are that while VOT appears to be a consistent perceptual cue for the distinction of the labial and apical stops, this does not appear to hold
true for the dorsal stops. While /k/ is always long and voiceless, the obstruent /g/ is rarely made with full closure. Medially /g/ is predominantly realised as the voiced fricative \([\gamma]\), very rarely as a fully stopped \([g]\). Initially /g/ is always a fricative, varying freely between voiced \([\gamma]\) and voiceless \([x]\).

To test this auditorily-based impression, I have made measurements of the primary acoustic features, 'voice onset time' and 'duration'. (Note that for the purposes of this study I treat /g/ simply as a second dorsal obstruent, without referring to it as either a stop or a fricative. Given the variation in the realisation of /g/, its allocation to either of these manner classes is a phonological decision that will be addressed later.) A sample of words spoken in isolation by an adult Ngan'giwumirri\(^9\) male was recorded on high quality tape on a Uher Report Monitor 4200 in a quiet room. Wideband spectrograms were produced on a Voiceprint Lab. series 7000 spectrograph. Spectrograms were analysed for stricture type, i.e. to see whether they were made with full closure or just approximation of the articulators. Initial stops were measured for voice onset times and initial fricatives for duration. Initial voiced stops were measured from the onset of glottal vibration, as perceivable by the first prerelease striations on the baseline of the spectrograph, to the point of release. Initial voiceless stops were measured from the release spike to the first signs of energy at the formant frequencies. Initial fricatives were measured from the onset of energy higher in the spectrum to the commencement of vowel formant bars.

\(^9\)For this study I chose to collect data on Ngan'giwumirri rather than Ngan'gikurunggurr for two reasons. The first, simply practical, was that I was working with an extremely good NgW informant at the time. Secondly, having previously made similar recordings and measurements with NgK data, this represented an opportunity to draw a comparison between the two dialects. Broadly speaking the acoustic characteristics of obstruent realisation in NgK and NgW are quite similar. The major difference evident in my data lies in the continuation of glottal pulsing through the approximation duration of medial /f/. Recall that, like all other Australian languages having fricatives, in Ngan'gityemerri there is only a single series of fricatives. In both dialects initial /f/ is usually voiceless [\(\phi\)]. Medially there is free variation between predominantly voiceless [\(\phi\)] and predominantly voiced [\(\beta\)]. The higher statistical occurrence of the predominantly voiced allophone in NgW can be seen in Table 3 where medial /f/ is characterised by glottal activity for 76% of approximation duration. In comparison NgK medial /f/ is characterised by glottal activity for 45% of approximation duration. (These figures are a mean percentage, calculated by measuring glottal pulsing as a percentage of approximation duration for all tokens of medial /f/-both predominantly voiced and predominantly voiceless.) This significant difference in glottal activity in the realisation of /f/, is a contributing factor in the perception by Ngan'gityemerri speakers of NgW being a 'heavier/rougher language'.
The mean stop VOT and fricative durations of initial obstruents in Ngan'giwumirri are given in Figure 2-2.

![Figure 2-2](image)

Medial obstruents were measured for constriction duration. Duration of medial stops was measured from where energy at formant frequencies is cut off, up to the point of release. Some tokens of medial /d/ were realised without full closure as a flap or approximant of some kind, with vowel formants clearly visible throughout the constriction phase (see adamant in spectrogram 1.). In these instances duration measurements were made from the lower transition points of F1. Duration of medial fricatives was measured from the cessation of formant bars (in the few tokens of voiceless medial /g/), and from the transition of formant bars (in the tokens of voiced medial /g/). The mean constriction durations of medial obstruents in Ngan'giwumirri are given in Figure 2-3.

![Figure 2-3](image)
Measurements were also made of glottal activity throughout the duration of medial obstruent constriction. Figure 2-4 below gives the mean duration of glottal pulsing as a percentage of the mean duration of medial obstruent constriction phase (calculated from the figures given in Figure 2-3).

![Figure 2-4](image)

**Voiced stop**  **Voiceless stop**  **Fricative**

It can be seen from Figure 2-3 that for medial obstruents the mean constriction duration ratio for both /b/ (105ms) and /p/ (160ms), and /g/ (75ms) and /k/ (115ms), is close to 1:1.5. For the apical stops (/d/ - 55ms and /t/ - 140ms) this ratio is much greater\(^\text{10}\) at 1:2.5. Setting aside the apicals for

\(^{10}\)Butcher(1989b:23) notes the greater constriction duration ratio of apical /t/ and /d/ in my measurements, and suggests that this may result from a higher frequency of flapped realisations of /d/ in my data. I agree - these flapped tokens of /d/ (see adamuy spectrogram 1, p 61) have probably lowered the mean duration value given for /d/ in Table 2, and should at least partially account for the significant difference between the mean durations of medial /d/(55ms) and /b/(105ms). This is the only real discrepancy between Butcher's measurements and mine, though my measurements for all obstruents except /t/ are generally between 5%-10% less than Butcher's measurements. Given that I have essentially employed the same measurement criteria as he, both these factors (the higher incidence of flapped /d/ and the overall shorter duration values for most obstruents) probably reflect differences in our data bases. Although we both collected citation forms from the same speaker (Robert Daly), recordings were made on different occasions, and Robert may have simply varied his delivery speed between these sessions, for a variety of reasons. However despite minor differences between our respective duration values for Ngan'giwumirri obstruents, note that Butcher's study and my own generally concur in terms of both the duration ratios for stops at the one place of articulation, and also in the significance of the timing of glottal gestures in the maintenance of the contrast.
the time being and looking at the bilabials and dorsals, note that the ratio of 1:1.5 is far less than the ratio of short to long stops reported by Butcher (1990:6) in those languages for which he concludes that closure duration is the only consistent cue to the stop contrast. Among such languages treated in his study, (including Burarra, Gurrogoni, Kunbarlang, Nakkarara, Rembarrnga, Jawony, Djinang, Djininy, and possibly Marrithiyel), Butcher (1990:43), reports that "The single consistent characteristic of the mechanism is that long stops are two to three times as long as short stops" (op. cit.). There are few other comparative studies that point towards a particular duration ratio value being a critical minimal requirement for the maintenance of a contrast between long and short stops. Lisker and Abramson note that languages with apparent VOT contrasts generally have a duration ratio of about 1:1.5, and that languages analysed as having a short/long contrast generally have a duration ratio of between 1:2 and 1:3. The 1:1.5 ratio found here for Ngan'gwumirri medial bilabial and dorsal stops certainly does not exploit the constriction duration time scale as efficiently as has been reported for the Burarran and western Yolngu languages and for Marrithiyel (Butcher, op. cit.).

On the other hand, Figure 2-4 shows that in medial position /p/, /t/, /ty/ and /k/ are all characterised by the early cessation of glottal pulsing (average 4% of constriction duration), probably achieved by active abduction of the glottis. In clear contrast, /b/, /d/ and /g/ are characterized by continued glottal pulsing throughout the greater part of constriction duration (average 94%). (Compare the tokens of medial /k/ (spectrogram 2), medial /g/ (spectrogram 3), medial /p/ (spectrogram 4), and medial /b/ (spectrogram 5)).

In initial position there is a clearly discernible difference between the voice onset time of the voiced and voiceless bilabial and apical stops. There is no range of values common to both series. The range, as measured from the release spike, is about -60 to -30 m/sec for the voiced stops, and +20 to +60 m/sec for the voiceless. Average figures, as given in Figure 2-2, are /b/ -35ms, /p/ +35ms, /d/ -50ms and /t/ +30ms. The 'poles' of the contrast here clearly exploit the VOT continuum maximally, in the sense that the contrast is always one of lead versus lag. Taking the bilabials as an example,

---

11 In my spectrograms of words with medial /g/ there is only a single token of [g] with full stop closure. While this instance of /g/ as a stop does not fit my classification in Table 2-3 of /g/ as a fricative, it does not affect the 'glottal pulsing as a percentage of constriction duration' value that Figure 2-4 demonstrates.

12 This contrasts with the findings of Lisker and Abramson's (1964) study of VOT in initial stops (in Dutch, Tamil, Cantonese, Puerto Rican Spanish, and English). They posit three VOT
Figure 2-5 below demonstrates how /p/ and /b/ fall into modal values in respect to their frequency of distribution. Baseline figures are in milliseconds.

![Figure 2-5](image)

Initial /k/ is uniformly voiceless and has an even longer VOT than either /p/ or /t/\(^{13}\). Initial /g/ is always realised as a fricative and varies freely in the activity of the glottis. Most tokens of initial /g/ are

modal values for the stop categories in these languages, -100ms, +10ms and +75ms. They found that in no language which had a contrast between two sets of stops, were the locations of the two sets of stops at opposite ends of the voice onset time scale. That is, the contrast was always lead(-100) vs small lag(+10), or small lag(+10) vs big lag(+75), never lead(-100) vs big lag(+75). Lisker and Abramson additionally found that three-stop-category languages, like Armenian and Thai, also had these categories distributed over ranges centering on -100, +10 and +75 ms. Noting that the variation in boundaries between categories along the VOT continuum is far from random, they speak of "three general phonetic types from which the categories of a particular language are selected", and suggest that VOT may be a "predictable consequence of differences in the relative timing of events at the glottis and at the place of oral occlusion"(1967:402). The VOT mechanism in Ngan'giwumirri clearly differs from the languages they studied in having clear lead(-40) vs lag(+35) modal values for initial bilabial and apical stops. Note though that the Ngan'giwumirri lead and lag values are mid-range, i.e. the lead value (-40) is a little less than half that reported by Lisker and Abramson (-100), and the NgW lag value (+35) lies between their small (+10) and big (+75) lag values. In this respect the NgW data accords with their observation that "in the phonetic realisation of phonemic contrasts human beings fall considerably short of utilising all the phonetic space available to them (1964:407).

\(^{13}\)This is, of course, is not unexpected; VOT is generally sensitive to place of articulation and it has been observed by Lisker and Abramson (1964:399) that velars have notably longer VOT initially.
characterised by the absence of voice bars on the baseline of the spectrogram until the onset of vocal energy at the formant frequencies (ie [x]). However in some tokens voice bars co-occur with the higher frequency noise pattern of the fricative (ie [y]). Clearly though, glottal pulsing is not a consistent perceptual cue in the contrast between initial /k/ and /g/. The only relevant parameter in the contrast between initial dorsal obstruents would appear to be stricture type, i.e. fricative vs stop. Recall that stricture type also differentiates most instances of medial /k/ and /g/, though medial /g/ is occasionally realised with full closure.

In acoustic terms, initial dorsal fricatives are characterised by a wider spread of higher spectrum energy with highest concentrations of this energy at formant frequencies, and a mean constriction duration of 50ms (see spectrogram 6). The initial dorsal stop /k/, on the other hand, is characterised by a clearer release spike, a lower concentration of energy burst, and a mean VOT lag duration of 40ms (see spectrogram 7).

2.2.2.2 Geminates

Intra-morphemically there is no systematic contrast in Ngan'gityemerri between single and geminate stops. Geminate nasals and stops do occur across morpheme boundaries, mostly, in the case of nasals, at the auxiliary-final boundary, as in 2-38, and in the case of voiceless stops, as a result of reduplicative processes, as in 2-39. In this position they contrast with single nasals and stops.

2-38 a) ngemengge-ne
NgK 1sgArrive -3sgM
SU Irr IO
I'll come up to him.

b) ngemenggen\textsuperscript{14}-ne
1sgArrive -3sgM
SU Perf IO
I came up to him.

2-39 a) ngagadi-pap -tye
1sgGo -climb-Past
SU PImp
I climbed up.

b) ngagadi-pappup-tye
1sgGo -climb -Past
SU PImp redup
I was climbing up and up.

The voiceless geminate stops, /pp/, /tt/, /tyty/ and /kk/, are realised by significantly longer closure duration (- sample token 190ms for /pp/). In

\textsuperscript{14}H&K not only fail to perceive the contrast between geminate and single consonants in the case of auxiliary-final nasals, but specifically claim that "If the initial consonant of the following morpheme in the verb phrase is a nasal, the final nasal of the auxiliary is deleted e.g. ngupun-ne-fili $\rightarrow$ ngupu-ne-fili " (H&K 1988:28)
addition to the voiceless stops, the voiced apical stop /d/ is geminated as a result of the apical assimilation rule (see Morphophonemic processes 2.4.2) applying to the underlying -rr+d- cluster formed at the boundary between the plural subject marker -rr- and auxiliary root-initial -d-. The contrast in resultant surface forms is shown in 2-40.

2-40  

<table>
<thead>
<tr>
<th></th>
<th>ngudeny</th>
<th>fel</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>1sgShoveDtr-bounce</td>
<td>I jumped.</td>
</tr>
<tr>
<td>b)</td>
<td>nguddeny</td>
<td>1plexShoveDtr-bounce</td>
</tr>
<tr>
<td></td>
<td>SU Perf</td>
<td>SU Perf</td>
</tr>
</tbody>
</table>

Geminate /dd/ is also realised by significantly longer closure duration; compare a sample token (see spectrograph 8) at 100ms with the mean duration value of 55ms given for single medial /d/ in Figure 2-3. While geminate /dd/ has a duration value approaching that of single /t/, as can be seen from spectrogram 8, it is however clearly distinguishable from /t/ in having glottal pulsing continuing throughout the full 100ms of closure. Glottal pulsing for such a duration after full oral closure could only be achieved by active enlargement of the supraglottal cavity. Ohala (1983:197) distinguishes 'passive' enlargement of the vocal tract (resulting from the natural compliance of the walls of the oral cavity), from 'active' enlargement (achieved through lowering the larynx, the mandible, etc.). From a neat test to determine how long glottal pulsing could last if only passive enlargement of the oral cavity took place, Ohala provides these figures; [b] - 82ms, [d] - 64ms, [g] - 52ms. In view of his results, the 100ms of glottal pulsing through the full closure of a geminate /dd/ (as in spectrogram 8), would almost certainly require active enlargement of the oral cavity to delay equalisation of the oral and sub-glottal air pressures. Furthermore, the same assumption can be extended to /b/, which shows full glottal pulsing through a mean closure duration of 105ms (see Figure 2-3). My own observations of the production of geminate /dd/ by Ngan'gityemerri speakers suggests that this is achieved primarily through the lowering of the larynx.

In Ngan'gityemerri then, phonemic geminates can be distinguished separately from the mechanisms that underlie the contrast between single voiced and voiceless stops. In addition, the fact that maintenance of glottal pulsing through the long closure duration of geminate /dd/ requires active supraglottal cavity enlargement, is strongly suggestive of the critical role that glottal timing plays in the stop contrast.
2.2.3 Summary of the Phonetic Data

Summarising for each place of articulation:

For the bilabial stop series, although medial /p/ is regularly one-and-a-half times as long as /b/, 'duration' is an insufficiently exploited feature to be the likely basis of the contrast. In both medial and initial position glottal timing is always a reliable cue, and seems more likely to be the basis of the contrast.

For the apical series, medial /t/ is long and has clear lag VOT, and medial /d/ is short and has clear lead VOT. For medial apicals then, both glottal timing and duration are equally consistent cues for stop differentiation. Initial /t/ and /d/ are distinguished only in terms of glottal timing.

For the dorsal series, medial /k/ is long and fully stopped, whereas medial /g/ is predominantly a fricative that has glottal pulsing through 87% of approximation duration. Medial /k/ and /g/ are therefore equally distinguishable in terms of both glottal timing and stricture type. Initial /k/ has clear lag VOT, and initial /g/ is a fricative that varies freely in degree of glottal activity. Glottal timing is not a reliable cue in the contrast between initial dorsals, which can only be distinguished in terms of stricture type.

The mechanisms by which a contrast could be maintained are set out for each place of articulation in Table 2-3 below.

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Apical</th>
<th>Dorsal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>initial</td>
<td>medial</td>
<td>initial</td>
</tr>
<tr>
<td>Glottal timing</td>
<td>√</td>
<td>√</td>
<td>×</td>
</tr>
<tr>
<td>Duration</td>
<td>×</td>
<td>×</td>
<td>√</td>
</tr>
<tr>
<td>Stricture type</td>
<td>×</td>
<td>×</td>
<td>√</td>
</tr>
</tbody>
</table>

Table 2-3

2.2.4 Phonological Solution

The contrast in Ngan'gityemerri is based on glottal timing, and can be characterised phonetically as a contrast between voiced and voiceless stops.

The uncharacteristically short duration of medial /d/ (that would make possible a contrast between medial apical stops in terms of constriction duration) results from the frequent realisation of /d/ as either a tap or approximant. Within the parameters of a voiced/voiceless analysis, these instances of shortened or incomplete articulatory closure are quite explicable as an active mechanism intended to facilitate the continuation of glottal pulsing. We have already noted that another mechanism (the
enlargement of the supraglottal cavity, in the case of geminates) is employed by Ngan'gityemerri speakers to achieve the same result.

Dorsal /g/ has traditionally (i.e. in previous work) been analysed as a voiced stop. In spite of the fact that medial /g/ is predominantly realised as a fricative, this analysis could be maintained here. Thus for the medial dorsals the contrast could also be characterised as one of voiced vs voiceless, with the predominant fricative realisation of /g/ being accounted for, as for /d/, in terms of an active mechanism intended to facilitate continued glottal pulsing. Such an account would be quite plausible in articulatory terms because the further back in the mouth that closure is made, the smaller the supraglottal cavity. The smaller the supraglottal cavity, the more difficult it is to continue glottal pulsing throughout closure duration, and thus the tendency to fricate increases.

However, an analysis of /g/ as a voiced stop becomes increasingly difficult to justify in the case of initial dorsals. The inadequacy of glottal timing as a consistent cue in the realisation of initial /g/, makes the contrast in this position only explicable in terms of stricture type. Within a voiced/voiceless analysis, the initial dorsal contrast would have to be separately specified as based on the parameter 'stop vs fricative'. Although variance in the mechanism by which a contrast is maintained is not implausible\textsuperscript{15}, the alternative phonological analysis of /g/ as a fricative offers a much neater solution.

\textsuperscript{15} No previous writers on stop contrasts in Australian languages appear to allow for the possibility of shifting contrast parameters. All the literature presupposes that of the bundle of features associated with the production of a stop (VOT, aspiration, duration, stricture type, etc), one and only one of these features serves as the basis of the contrast for a given language, and all the others are merely phonetic by-products of that feature, and functionally redundant in the maintenance of the contrast. Heath, in his grammar of Ngandi, claims that both 'voice' and 'duration' serve equally well as the basis of the contrast, but offers no further explanation, or reasons for his choice of the terms 'fortis/lenis'. Most other work on the nature of stop contrasts treat languages as either 'VOT languages' or 'fortis/lenis languages'. This is implicit in Jaeger's article (1982), and stated explicitly by Cook - "Segmental approaches vary widely, and a choice must be made between analysing the contrast directly as one of voicing, ......or as fortis stops contrasting with lenis stops" (Cook 1984:45)(emphasis mine).

I see no compelling reasons why contrast mechanisms should necessarily be uniform within the phonological system of a single language. Potentially contrasts could be maintained in terms of the shape of the whole bundle of the phonetic features that are associated with stop production, without any one of them necessarily being the crucial feature at all places of articulation. The profile of this bundle of features could vary from one place of articulation to another, because individual features can be made prominent by articulatory factors associated with the size of the supraglottal cavity. For Ngan'gityemerri, if the option of patterning /g/ with the fricative class were not available, this is the type of analysis I would have opted for. I would have argued that within the
Analysing /g/ as a fricative has the following advantages. Firstly, it is a better reflection of the predominant allophony of this obstruent. As noted above, in initial position /g/ is always a fricative, and medially it is predominantly a fricative, and only very rarely realised with full stop closure.

Secondly, the phonemic inventory is slightly simplified in that the dorsal series patterns with the laminals. We now have only two types of obstruent pattern, rather than three.

1. Bilabial + Apical - stop + stop + fric
2. Laminal + Dorsal - stop + fric

The stop contrast is now restricted to the bilabials and apicals only. As the contrast for both these articulatory types is readily explicable in terms of the feature 'glottal timing', there is no longer any need to postulate variant phonetic features underlying the contrast.

Thirdly, the allophony of /g/ is generally consistent with that of the laminal and bilabial fricatives (the apical fricative does not occur word-initially).

Fourthly, in terms of phonotactic distribution, the occurrence of /g/ after liquids, e.g.

<table>
<thead>
<tr>
<th></th>
<th>malgin</th>
<th>spinifex</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-42</td>
<td>marrgu</td>
<td>new</td>
</tr>
<tr>
<td></td>
<td>midirgurr</td>
<td>nut</td>
</tr>
</tbody>
</table>

bundle of phonetic features associated with the realisation of Ngan'gityemerri stops, 'glottal timing' is made prominent in the contrast between the bilabial stops, both 'glottal timing' and 'duration' are equally prominent in the contrast between apical stops, and 'stricture type' is made prominent in the contrast between dorsal stops.
is anomalous if /g/ is analysed as a stop, as no other voiced stops can occur intramorphemically in this type of cluster. However the fricative /f/ clusters with liquids;

\[
\begin{array}{ll}
2-43 & \text{n gulfin} \quad - \quad \text{slope} \\
     & \text{werrfe} \quad - \quad \text{over there}
\end{array}
\]

so we would achieve greater phonotactic neatness in re-stating the two anomalous cluster types;

1 "/g/ is the only voiced stop to occur intramorphemically after liquids"
2 "/f/ is the only fricative to occur intramorphemically after liquids"

as,

3 "both peripheral fricatives occur intramorphemically after liquids".

For these reasons I find the analysis of /g/ as a fricative to be a neater solution.
Spectrogram 1: adamuy 'clitoris', showing the realisation of /d/ as a flap or approximant with 1st and 2nd formants clearly visible throughout the 'closure' duration.

Spectrogram 2: wakay 'finished', showing the abrupt cessation of glottal pulsing into closure, typical of medial voiceless stops.
Spectrogram 3: agadîr्र 'green ant', showing the lack of complete closure and typical duration of medial /g/.

Spectrogram 4: kengarapa 'lung', showing the abrupt cessation of glottal pulsing into closure, and typical duration of medial /p/.
Spectrogram 5: *daba 'arm*', showing the continuation of glottal pulsing through 110ms of medial /b/ closure.

Spectrogram 6: *ganbi 'didjeridu*', showing the typical realisation of initial /g/, as the voiceless fricative [x].
Spectrogram 7: *kuderri* 'billabong', showing initial /k/ as the voiceless stop [k].

Spectrogram 8: *wadde-tye* 'they (dl) went', showing glottal pulsing throughout 100ms of closure duration for geminate /dd/, probably maintained through active enlargement of the supraglottal cavity.
2.3 Phonotactics
2.3.1 Syllable Structure

The five syllable types found in Ngan'gityemerri are exemplified by monosyllabic words in 2-44 below.

<table>
<thead>
<tr>
<th>Syllable Type</th>
<th>Example Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>e</td>
<td>clause connective</td>
</tr>
<tr>
<td>VC</td>
<td>ep</td>
<td>perhaps</td>
</tr>
<tr>
<td>CV</td>
<td>bi</td>
<td>axe</td>
</tr>
<tr>
<td>CVC</td>
<td>finy</td>
<td>sweat</td>
</tr>
<tr>
<td>CVCC</td>
<td>ngurrp</td>
<td>emu</td>
</tr>
</tbody>
</table>

Setting aside the two vowel-initial syllable types which have rather restricted possibilities, on the basis of the other three syllable types we can propose the following formula.

\[ 2-45 \quad C_1V_1((C_2)C_3) (C_4V_1((C_2)C_3))^* \]

The formula needs to be two-syllable, as not all consonants found in position \(C_4\), can also fill \(C_1\). The second syllable is bracketed, to allow for monosyllables, and recursive* to allow for words of more than two syllables. Monosyllables are not common, the following list of 35 words are all the examples in my corpus of data, but this is unlikely to be completely exhaustive.

<table>
<thead>
<tr>
<th>Syllable Type</th>
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<th>Meaning</th>
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</thead>
<tbody>
<tr>
<td>V</td>
<td>e</td>
<td>'and'-clause connective</td>
</tr>
<tr>
<td>VC</td>
<td>ep</td>
<td>'perhaps'</td>
</tr>
<tr>
<td>CV</td>
<td>bi</td>
<td>'axe'</td>
</tr>
<tr>
<td>CVC</td>
<td>finy</td>
<td>'sweat'</td>
</tr>
<tr>
<td>CVCC</td>
<td>ngurrp</td>
<td>'emu'</td>
</tr>
</tbody>
</table>

Other than this fairly small set of monosyllabic words, monomorphemic words typically have 2 or 3 syllables, nominal compounds
can be up to 6 or 7 syllables, and the verbal complex, which functions as a unitary phonological word, can vary from a monosyllable, up to about 12 syllables.

Looking back at the two vowel-initial syllable types, we find that allowing for them within this formula is slightly problematic. Although the occurrence of vowel-initial words in Ngan'gityemerri is quite high (several hundred easily), these are almost entirely attributable to a single morpheme - the animal classmarker /a-/ eg: a-matyi ‘kangaroo’. Vowel-initial words other than those derived by prefixation of this classmarker are sufficiently scarce that they can be listed here in their entirety.

2-47  
apma - shut up!  
anemuni - sweetheart  
apuderri - pubescent girl  
andirrk - nya nya you can’t catch me  
agatyintyi(W)/angalin(K) - fishing  
ambirri(W)/apirri(K) - before  
apukek(K) - underneath  
ityi¹⁶ - what  
(i)ngga - take it!  
etye - when  
errike - how many  
epe - perhaps  

There are no words beginning with /u/.

To include these words into our syllabic formula we could modify it by preposing an optional initial vowel.

2-48  
(V)C₁V₁((C₂)C₃) (C₄V₂((C₂)C₃))*  

This, however raises additional complications as not all consonants following an initial vowel can also be word initial. The apical fricative /s/ occurs following initial /a/ in the examples below;

2-49  
asiminmin - flying fox sp.  
asikarrak - masked plover

¹⁶These two examples are rather marginal. Their is some minor evidence that both ityi and ingga(often further reduced to ngga) are underlingly /y-/ initial.
but cannot occur initially. As /s/ in the above examples patterns more like a \( C_4 \) consonant, it seems more appropriate that we view initial vowels as \( V_1 \) rather than the preposed initial \((V)\) of the formula in 2-48. As an alternative then we can revise our original formula by bracketing \( C_1 \) as optional.

\[ (C_1)V_1((C_2)C_3) (C_4V_2((C_2)C_3))^{*} \]

Certain possibilities allowed for by this revision, such as monosyllabic \( V_1 \) and \( V_1C_3 \), are exemplified by only single examples (\( e \) and \( ep \) in 2-44 above). Rare exemplification is, however, simply a distributional fact, and therefore not one that should motivate change to a template of permissible word shape. There are two further observations to be made though. Firstly, word-initial \( V_1 \) is essentially restricted to /a/ and /e/, whereas non-initial \( V_1 \) can be any vowel. Secondly, one possibility allowed for within the revised template given in 2-50 has never been attested; no monosyllabic word has the structure \( V_1C_2C_3 \).

There are slightly more \( V_1C_3 \) syllables to be found as the initial syllable of multi-syllabic words, as shown in 2-51.

\[ \begin{align*}
2-51 & \quad \text{anggalifen} & \quad \text{- } & \quad \text{lizard sp.} \\
 & \quad \text{anggirrgimi} & \quad \text{- } & \quad \text{rib bone} \\
 & \quad \text{alfugarri} & \quad \text{- } & \quad \text{jabiru}
\end{align*} \]

In such examples the patterning of the resultant clusters, each of type \( C_3C_4 \), validates the decision to view word initial vowels as \( V_1 \) rather than a preposed \((V)\).

2.3.2 General Restrictions on Vowel Occurrence

As already discussed in the section on vowel realisations, /u/ is the only vowel which is never found word initially, and the few /i/ initial words can be considered to be underlyingly /y-/ initial.

All vowels are found medially and their occurrence percentages are as follows.

\[ \begin{align*}
/i/ & \quad -33\% & \quad /a/ & \quad -28.3\% & \quad /u/ & \quad -21.7\% & \quad /e/ & \quad -17\%^{17}
\end{align*} \]

63\% of nominals end in vowels, and all four vowels have been recorded contrastively in word final position. Though the hierarchical ranking of their occurrence here is the same as it is medially, their percentage of occurrence is less evenly distributed.

\[ \begin{align*}
/i/ & \quad -65\% & \quad /a/ & \quad -19\% & \quad /u/ & \quad -9\% & \quad /e/ & \quad -7\%
\end{align*} \]

---

17Percentages calculated from a list of 500 vowel final nominals.
2.3.3 General Restrictions on Consonant Occurrence
2.3.3.1 Distribution of single consonants

Initially -

```
+---+---+---+---+
| t  | ty | p  | k  |
| d  | b  |
| s  | sy | f  | g  |
| n  | ny | m  | ng |
| l  |    |
| r  | y  | w  |
```

Figure 2-6

C₁ cannot be either of the rhotics /r/₁⁸ or /rr/, nor can it be the apical fricative /s/. In view of the rhotacised quality attributed to /s/ in 2.1.3.2, this shared failure to appear initially may suggest re-analysis of the fricative as a rhotic. Such an analysis is however ultimately unfruitful as /s/ fails to form a natural class with the two rhotics in all other occurrence positions.

As is typical for Australian languages, initial stops and nasals are far more likely to be peripheral than non-peripheral. Initial /t/ and /n/ each account for less than 1% of the lexicon, and initial /ny/ is attested in two words only - nyinyi 'you sg.', and nyurrng 'sniff, snort'. The voiced apical stop /d/ has a far higher percentage of occurrence than we would predict for a non-peripheral stop. This results from its initial occurrence on the bodypart and 3sg subject prefixes, both of which have a high functional load. Generally though, voiced stops are far less common word initially than voiceless stops.

---

₁⁸There is a single exception to this restriction. rak - the patrician marker, prefixes estate names to denote all people inheriting that estate through their father eg: rak-Malfiyin. Cognates of this lexeme (rak, dak, lak etc) are widespread in the languages of the Daly region and further eastwards, and are marked as phonotactically odd in many of them.
Intervocically-

![Diagram](image)

Figure 2-7

Intervocalic $C_4$ can be any consonant.

Finally -

![Diagram](image)

Figure 2-8

Word and syllable final $C_3$ can be any consonant except a voiced stop$^{19}$ or a fricative.

---

19There is one exception to this general statement that we have already encountered in example 2-40. Within the auxiliary verb, syllable-final -rr-, denoting non-singular subject number, assimilates to the the manner of auxiliary-root-initial -d-, e.g. nguddeny-fel ‘we (pl ex) jumped’. This morphophonological rule is discussed in more detail in 2.4.2. Otherwise voice stops do not occur in syllable-final position.
In 2.3.2 we noted that 63% of all words are vowel final. From the remaining 37% of consonant final words we can make the following observations. The apical trill at 12.6%, and the apical nasal /n/ at 8.3% account for over half of all word-final consonants. The pattern suggested by these figures, that word finally non-peripherals are more common than peripherals, is not borne out by the stops. The dorsal /k/ is the most frequent final stop (3.6%), followed by the non-peripherals /t/ (2.3%) and /ty/ (1.3%) Bilabial /p/, the least frequent (0.6%), appears finally in nominals, only in the C2C3 cluster /rrp/, eg: ngurrp 'emu' and ferrp 'often', and in a couple of verb roots, eg: wap 'sit', pap 'climb' etc, which in the absence of verbal enclitics, can be word final.

The continuant /r/ has only been recorded word finally in a single Ngan'gikurunggurr word, and three Ngan'gigwumirri words, adigar (W/K) 'Australian pratincole', amugar (W) 'bony bream' and awugur (W) 'small fish sp. used for livebait'. However it is found more commonly syllable finally on a number of bound prefixes wur- 'female', ngur- 'penis' etc. The labiodorsal semivowel /w/ has only been recorded finally in a single word, the exclamation (ka)kaw 'come here!'. The possible elision of a final vowel, or some other form of phonological aberration, would not be particularly unexpected in a member of the imperative/ejaculatory wordclass, however in this instance its occurrence is contrastive with a vowel final word.

The occurrence of final /y/ needs to be established to account for word final diphthongisation of /u/ and /a/.

The failure of /y/ to occur finally after front vowels prompts an alternative analysis of the above forms as elisions of eg: /wakayi/ and /damuyi/.
However a wider examination of the lexicon shows that not all -ayi- and -uyi- sequences follow this pattern.

2-55 ngayi - I [ŋaŋji]
awuyi - possum [awojji]

On the basis of this data, I interpret word final diphthongs as a sequence of vowel + semivowel. Semivowels are thus included in the list of consonants appearing word finally though, as in many Australian languages, their distribution is restricted to following back vowels only.

2.3.3.2 Consonant Clusters

The discussion below deals with three types of consonant cluster.

1) Syllable final diconsonant clusters: C_2C_3
2) Inter-syllabic diconsonant clusters. We further break this section down, comparing those clusters which can only occur intramorphemically, with those which can occur across morpheme boundaries (marked by +): C_3C_4 and C_3+C_4
3) Triconsonant clusters: C_2C_3+C_4

Syllable final Clusters: C_2 C_3

![Figure 2-9](image-url)

C_2 can only be one of the liquids, usually the trill /rr/. I have recorded only one example of the lateral /l/ and two of the continuant /r/.

C_3 can only be of the voiceless peripheral stops /p/ or /k/, or the dorsal nasal /ng/.
Intersyllabic Intra-morphemic Clusters $C_3 C_4$

Syllable final preconsonantal $C_3$ can be any voiceless stop, nasal or liquid. Syllable initial postconsonantal $C_4$ can be any stop, any nasal, the peripheral fricatives /f/ and /g/, and either semivowel. These are only general statements of distribution, not all conceivable combinations being attested. Three more precise statements of the types of cluster found intramorphemically are set out below.

1) Stops and Stops

A non-peripheral voiceless stop followed by a peripheral voiceless stop.

2-57 ngatypirr - distant

watkuwatku - frog

(tp and tyk remain unattested)

2) Stops and Nasals

Any homorganic nasal/stop cluster.
2-58  membirr   -  child  
wendili   -  Grevillia pteridifolia  
kunintyin$^20$  -  Boab tree  
wangga   -  dance style  

The only heterorganic nasal/stop clusters to occur intramorphemically are the apical /n/ followed by a peripheral stop.

2-59  kanbi   -  bamboo, didjeridu  
ngan'gi   -  language, story, word

No homorganic nasal/nasal clusters occur within morphemes. The single heterorganic cluster that occurs here is /n + m/.

2-60  panmi   -  fork, crotch  
minmi   -  no !

Stop/nasal clusters likewise reflect this pattern, consisting only of a voiceless stop plus /m/.

2-61  tyatma   -  straight  
apma   -  shutup!

(km and tym are unattested)

3) Liquids

The lateral /l/ followed by any of /p k m f g w y/.

2-62  melpe   -  flat  
ngilmil   -  semen  
gulfin   -  slope  
milwadi   -  waist  
delyek   -  woman who has borne a child  
wakity   -  flower  
malgin   -  spinifex

The trill /rr/ followed by any of /m f g w/.

2-63  durrmu   -  paint(ing)  
agarrfuru (W)-  -  skin  
malarrgu   -  longnecked turtle  
darrwa   -  raft

$^20$The contrast in Ngan'gityemerri between apical nasal n and laminal nasal ny is neutralised in intramorphemic nasal stop clusters with the laminal stop ty. In the practical orthography used here, this cluster is represented as -nty- not -nyty-, although the nasal is phonetically realised as laminal [n].
The continuant /r/ has only been recorded in intramorphemic clusters with the dorsal obstruents, i.e. /r+g/ and /r+k/.

<table>
<thead>
<tr>
<th>2-64</th>
<th>midirgurr</th>
<th>nut sp.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ngirkik</td>
<td>breathlessness</td>
</tr>
</tbody>
</table>

From these three statements we can observe that C3 cannot be a fricative, a semivowel or a voiced stop. C4 cannot be a liquid, the laminal fricative /sy/, or a voiced stop, except postnasally - a position in which, morpheme-medially, the stop contrast is neutralised. We can also perceive the significance of the feature '±peripheral'.

**Intersyllabic Intra-morphemic Clusters**

<table>
<thead>
<tr>
<th>first element</th>
<th>second element</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>b</td>
</tr>
<tr>
<td>p</td>
<td>x</td>
</tr>
<tr>
<td>b</td>
<td></td>
</tr>
<tr>
<td>f</td>
<td></td>
</tr>
<tr>
<td>t</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td></td>
</tr>
<tr>
<td>s</td>
<td></td>
</tr>
<tr>
<td>ty</td>
<td></td>
</tr>
<tr>
<td>sy</td>
<td></td>
</tr>
<tr>
<td>k</td>
<td></td>
</tr>
<tr>
<td>g</td>
<td></td>
</tr>
<tr>
<td>m</td>
<td></td>
</tr>
<tr>
<td>n</td>
<td></td>
</tr>
<tr>
<td>ny</td>
<td></td>
</tr>
<tr>
<td>ng</td>
<td></td>
</tr>
<tr>
<td>l</td>
<td></td>
</tr>
<tr>
<td>rr</td>
<td></td>
</tr>
<tr>
<td>r</td>
<td></td>
</tr>
<tr>
<td>w</td>
<td></td>
</tr>
<tr>
<td>y</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2-11**

Intersyllabic Inter-morphemic Clusters. C3+C4

We can now address the C3C4 clusters that occur across morpheme boundaries. As an essentially agglutinating language, Ngan'gityemerri displays widespread compounding, full and partial root reduplication, and extensive affixation and cliticisation. A far greater range of clusters is
produced by these morphological processes than those selective few exploited intra-morphemically.

Now, with one extension and one minor exception, any C₃ can be followed by any C₁, i.e: any word final consonant can be followed by one which can occur initially. The extension is that the continuant /r/ which has an extremely rare final occurrence, can now be followed by any C₁ consonant. The one exception is that no voiced stop or fricative can follow a voiceless stop. This is merely a theoretical constraint though, as Ngan'gityemerri morphemes are so structured that such impermissible clusters are not produced (i.e: no morpheme ends in a voiced stop, no suffix begins with a voiced stop, no prefixes end in a voiceless stop).

Triconsonant Clusters: C₂C₃ +C₄

Triconsonant-clusters do not occur intra-morphemically. They are produced only across morpheme boundaries, as the result of two morphological processes: reduplication and affixation. Triconsonant-clusters resulting from each of these processes are examined separately here, as there are differences in the number of clusters they generate, and the types permitted in surface forms.

In Ngan'gityemerri there are a small group of monosyllables having final C₂C₃ clusters (see 2.3.1), e.g purrk 'clap'. The reduplication of such syllables generates triconsonant-clusters of the form C₁VC₂C₃C₁VC₂C₃. C₃, as we saw above, is restricted to the peripheral stops/nasal /p k ng/. The C₁ can be any of /p k m ng/.

Triconsonant Clusters

![Diagram of triconsonant clusters](image-url)

Figure 2-12
However, as the examples below show, /p/ has not been recorded in C3 in a triconsonant cluster, and /k/ has not been recorded in C1. Given that /p/ appears as C3 in C2C3 clusters in unreduplicated syllables, eg ngurrp 'emu', and /k/ otherwise appears in C1, these gaps appear to be accidental rather than in any way systematic.

Not only are triconsonant-clusters resulting from reduplication heavily restricted by the small number of monosyllabic C1VC2C3 words, but where C3 and C4 share the same manner of articulation they are subject to a morphophonological rule that deletes C3 (see 2.4.1).

In contrast the process of affixation generates a far wider number of triconsonant-clusters, all of which are permitted (i.e. clusters where C3 and C4 share the same manner of articulation are not affected by the rule discussed in 2.4.1).

Monosyllabic verb roots ending in C2C3 clusters are typically followed by consonant initial verbal enclitics.

And monosyllabic nominals ending in C2C3 clusters can be followed by consonant-initial nominal suffixes.

Theoretically any of the C2C3 clusters that we have noted could be followed by any consonant that appears initially on nominal and verbal
enclitics/suffixes. From the forms of such enclitics/suffixes in each language we can predict that the possible types of third consonant would be:

\[
\begin{align*}
\text{NgW} & : \quad /\text{ty p g n y n ng m w/} \\
\text{NgK} & : \quad /\text{ty p k g n ng w/} \\
\end{align*}
\]

2.4 Morphophonological Processes

There are four morphophonological processes operating in Ngan'gityemerri to avoid undesirable phonological patterns.

2.4.1 Triconsonant Cluster Reduction

In section 2.3 we discussed a small group of monosyllables having final \( C_2C_3 \) clusters, e.g. purrk 'clap'. We noted that the reduplication of such syllables generates triconsonant-clusters of the form \( C_1VCC_2C_3C_1VC_2C_3 \). The consonants that can theoretically fill the three positions in such clusters are:

\[
\begin{align*}
C_2 & : \quad \text{any liquid, but nearly always /rr/} \\
C_3 & : \quad /\text{p/, /k/, or /ng/} \\
C_1 & : \quad /\text{p/, /k/, /ng/, or /m/} \\
\end{align*}
\]

However not all possible combinations are permitted. Where \( C_3 \) and \( C_1 \) of this cluster have different manners of articulation, i.e. /liquid + stop + nasal/ or /liquid + nasal + stop/, then the triduster is permitted, as in 2-68.

2-68  
\[\text{purrngpurrng} \rightarrow \text{boiling} \]
\[\text{ngirrkngirrk} \rightarrow \text{dog's growl} \]

However where \( C_3 \) and \( C_1 \) have the same manner of articulation (i.e. are both stops or both nasals), this process operates to delete \( C_3 \), as in 2-69.

2-69  
\[\text{purrkpurrk} \rightarrow \text{purrpurrk} \quad \text{little things} \]
\[\text{marrngmarrng} \rightarrow \text{marrmarrng} \quad \text{happy-go-lucky} \]

The tri-consonant cluster reduction process affects only those tri-consonant clusters that are generated by reduplication of syllables having final diconsonant clusters. It does not operate to reduce those triconsonant-clusters resulting from enclitics/suffixes to such syllables. Thus in example 2-66a, reproduced below as 2-70, the triconsonant-cluster retains its full form.

2-70  
\[\text{ngi - purrk-pe} \quad \text{-I'll dance, clap.} \]
\[1sgSit-dance- \text{ Fut} \]
\[SU \text{ Irr clap} \]
2.4.2 Apical Assimilation

Where morphological processes order the apical stops /t/ and /d/, or the apical nasal /n/, after the apical flap /rr/, this process assimilates the flap to the manner of the following segment. Assimilation of this kind produces stop and nasal geminates that are contrastive with single stops and nasals (see also the discussion of gemination in 2.2.2.2). This process does not apply to every /rr/ + /apical stop-nasal/ cluster that results from morphological processes, but applies in only two specific environments. Its most frequent application is within the verbal morphology, at the juncture between the subject number marker and the auxiliary root. Within nominal morphology this process can be seen to operate at the juncture between the 'tree/thing' classmarking prefix and its host. Each of these environments is examined below.

2.4.2.1 Subject Number Marker - Auxiliary Root

As described fully in 3.2, the auxiliary root bears obligatory bound pronominal subject person, and subject number prefixes. The bound subject prefix is generally of the form CV, and the auxiliary root of the form CVN:

2-71 nge - Ø - ben - da  
1st - sg - Bash - shoot  
SU SU Perf

Singular subject number is encoded by -Ø- (as in 2-71), and non-1st inclusive, non-singular subject number is encoded by the apical flap -rr-21, as in 2-72.

2-72 a) nge - rr - bem - da  
1st - ns - Bash - shoot  
SU SU Perf

Where the initial consonant of the auxiliary root is an apical stop or nasal, the non-singular subject number marker /rr/ assimilates to its manner,

21For the purpose of this discussion, I have exemplified the distinct morphological status of subject person and subject number markers by separating them with a hyphen and glossing them separately. This is not my normal glossing practice. Elsewhere the internal constituents of the auxiliary are lumped together, and the combination of subject person and number markers and the auxiliary root (nge-rr-bem in 2-72) would be glossed as:

n ger b em
1plex Bash  
SU Perf
producing geminate stops and nasals as in examples 2-73 b) and 2-74 b) below.

2-73 a) ngu - deny - fel  
1sg - ShoveDtrD - jump  
SU Perf  
I jumped.

b) ngu-rr-deny-fel  \rightarrow ngud - deny - fel  
1plex-ShoveDtrD-jump  
SU Perf  
We (plex) jumped.

2-74 a) nga - nam - tyek  
1sg - Feet - wipe  
SU Perf  
I erased my footsteps.

b) nga-rr-nam-tyek  \rightarrow ngan -nam -tyek  
1plex-Feet -wipe  
SU Perf  
We (plex) erased our footprints.

In addition we should note here a minor type of apical deletion that occurs where the initial consonant of the auxiliary root is the apical continuant /r/. From the underlying cluster /rr/ + /r/, formed by the addition of the non-singular subject number morpheme, the continuant is deleted to produce the single segment /rr/, as in example 2-75.

2-75 a) ngi -riny - lalirr (W)  
1sg - Aux1-eat  
SU Perf  
I ate.

b) ngi-rr-riny-lalirr  \rightarrow ngirriny - lalirr  
1plex+Aux1-eat  
SU Perf  
We (plex) ate.

2.4.2.2 'Tree/Thing' classmarker + 'Tree/Thing' class member

As discussed in 5.2.7, the classmarker yerr- prefixes members and modifiers of the 'tree/thing' noun class. Where class member morphemes have initial consonant /d/, the final rr of the class prefix assimilates to the manner of that consonant.
There are no 'tree/thing' class member terms in my data which have /t/, /n/ or /l/ as initial consonant, so the generalisation of this as 'apical' assimilation, while quite logical, is untestable. Note though that the single 'tree/thing' class member term that has an initial laminal stop (the term for 'chewing tobacco', formed by prefixing tyerrawu 'saliva' with the 'tree/thing' class generic), additionally triggers the assimilation of rr to both the manner and place of that laminal stop.

2-77 yerr-tyerrawu → yetytyerrawu - chewing tobacco

2.4.3 Deletion
2.4.3.1 i deletion

The vowel i is subject to deletion in two environments. The first is where morphological processes result in the ordering of an unstressed i between apical nasals. In these circumstances i is deleted leaving a geminate nasal. Consider the examples set out in 2-78.

2-78 a) tyágani-nlimbi → tyagan-nimbi
what -CAUS
from what?
b) tyágani-nawa → tyagan-nawa
what -INDEF
whatever
c) wúni-napa → wun -napa
there-JUST
right there
d) ngámbani-nime-pe → ngamban-nime-pe
1ns Go -plinc-Fut
SU Irr SU
Let's go!

Secondly, the compounding of nominal roots, and the attachment of enclitics to nominal roots, can potentially result in the ordering of contiguous vowels. Such occurrences are rare within noun phrases and impossible within the verbal complex because Ngan'gityemerri morphology is generally constructed of CV(C) syllables. Wherever two nominal roots forming a single phonological word, be it through compounding (as in 2-79
a) or encliticisation (as in 2-79 b), end and begin with i and a respectively, then i is deleted. Consider the examples below.

2-79  a) kuri - apukek → kur-apukek
       water-under
       underwater

   b) kinyi-ambirri → kiny-ambirri
      this - first
      before now

Given the limited distribution of morpheme-initial vowels in Ngan'gityemerri, note that i+a is the only possible ordering of contiguous vowels within a single phonological word.

2.4.3.2 rV Deletion

An examination of the Ngan'giwumirri and Ngan'gikurunggurr auxiliary verb paradigms (see appendices A and B), shows evidence of a general aversion to the occurrence in contiguous syllables of the apical stop /d/ and continuant /r/. Where these are ordered in consecutive syllables, the syllable containing the continuant will be deleted. e.g. -dVrV→ -dV-. By way of example, the underlying and surface forms of the 1st, 2nd and 3rd singular and 1st dl inc, present tense forms of the 'sit' auxiliary are given below.

2-80  ngi - Ø - rim → ngirim          I'm sitting.
       yi - Ø - rim → yirim          You're sitting.
       di - Ø - rim → dim           He's sitting.
       ngi - ndi-rim → ngindim      We (dlinc) are sitting.

Keeping in mind that there is little motivation for treating synchronic paradigmatic relationships as the results of productive deletion rules, note that many of the suppletive forms within the paradigms are to be found where, as in 2-80, the regular pattern of auxiliary constituents would have contained -dVrV- sequences.

2.4.4 Vowel Harmony

Another process of assimilation operating in Ngan'gityemerri is metaphony: non-contact vowel assimilation. In Ngan'gityemerri this process operates regressively (i.e. right to left) in two main environments; 1) selectively, though regularly, from nominal roots onto classmarkers, and 2) extensively, though randomly, throughout the verbal morphology.
2.4.4.1 Nominal Roots to Classmarkers

As discussed in section 5.5, bound class generics are predominantly proclitics, but a subset of them have been re-interpreted as prefixes when they are attached to class member terms (but not modifiers of those class members). Prefixes, unlike proclitics, are generally subject to phonological processes, and two of this subset of bound class prefixes, the 'bodypart' classmarker \( dV^- \) and the 'animal' classmarker \( a^- \), undergo vowel harmony.

The 'bodypart' class prefix selects its vowel quality by the following rule (# as morpheme boundary);

\[
V \rightarrow e / _- \ #CV_{-\text{back}} \\
\rightarrow a / _- \ #CV_{+\text{back}}
\]

as is demonstrated by the examples in 2-81:

<table>
<thead>
<tr>
<th>2-81</th>
<th>de-pi</th>
<th>head</th>
<th>da-tyamu</th>
<th>cheek</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>de-syi</td>
<td>nose</td>
<td>da-muy</td>
<td>eye</td>
</tr>
<tr>
<td></td>
<td>de-tyeny</td>
<td>tongue</td>
<td>da-wayirr</td>
<td>forehead</td>
</tr>
<tr>
<td></td>
<td>de-tyeri</td>
<td>ear</td>
<td>da-ba</td>
<td>arm</td>
</tr>
<tr>
<td></td>
<td>de-me</td>
<td>hand</td>
<td>da-madi</td>
<td>chest</td>
</tr>
<tr>
<td></td>
<td>de-firr</td>
<td>foot</td>
<td>da-purr</td>
<td>bum</td>
</tr>
</tbody>
</table>

The V of the 'animal' class prefix also varies between /a/ and /e/ although as 2-82 below reveals, the conditioning environment is in this case slightly different.

<table>
<thead>
<tr>
<th>2-82</th>
<th>e-men'giny</th>
<th>goanna sp.</th>
<th>a-minyalak(K)</th>
<th>bony bream</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>e-ferri</td>
<td>bluetongue</td>
<td>a-tyalmerr(K)</td>
<td>barramundi</td>
</tr>
<tr>
<td></td>
<td>e-fekimii</td>
<td>bandicoot</td>
<td>a-ti</td>
<td>cod</td>
</tr>
<tr>
<td></td>
<td>e-lele</td>
<td>curlew</td>
<td>a-furra</td>
<td>mussel</td>
</tr>
<tr>
<td></td>
<td>e-fekiterr</td>
<td>long tom</td>
<td>a-winy</td>
<td>bream</td>
</tr>
<tr>
<td></td>
<td>e-pelen</td>
<td>rifle fish</td>
<td>a-murriyi</td>
<td>crab</td>
</tr>
<tr>
<td></td>
<td>e-melpe(K)</td>
<td>stingray</td>
<td>a-manbi</td>
<td>nail fish</td>
</tr>
</tbody>
</table>

Here the rule by which the vowel quality of the class prefix is determined, requires the specification of an additional feature in the differentiation of its conditioning environment. In addition to the feature '±back' we now also require '±high'.

---

22Present data reveals two examples, detyunmi 'back of the head', and denunbi 'sacrum', which remain unaffected by this process and are consistently realised as [decoymi] and [denopbi].
In this instance we would probably have little hesitation in positing /a/, on distributional grounds, as the underlying form and rewrite this simplification into our rule.

\[
V \rightarrow e / \_\_ CV_{[-back, -high]} \\
\rightarrow a / \_\_ CV_{[+back], [-back, +high]} 
\]

Note however that rewriting the rule for the bodypart prefix as either;

\[
V \rightarrow e / \_\_ CV_{[-back]} \quad \text{or} \quad V \rightarrow a / \_\_ CV_{[+back]} \\
\rightarrow a / \text{elsewhere} \quad \rightarrow e / \text{elsewhere}
\]

remains unmotivated as both of these alternatives attribute the status of an underlying form to the unmarked realisation, when in reality we have no real criteria, distributional or otherwise, upon which to base such a judgement.

The 'bodypart' and 'animal' class prefixes are the only two that are subject to metaphony. All other classmarkers fail to show any variation in their realisation, regardless of the quality of V₁ of any nominal root to which they may be attached, and regardless of whether, as discussed in 5.5, they function as prefixes or proclitics.

Note also that where the 'animal' bound class generic is copied onto modifiers of class members, it functions as a proclitic, not a prefix (cf. 5.5). As a proclitic it remains phonologically independent of its host, and is therefore unaffected by the vowel harmony process. This is demonstrated in 2-84 below.

2-83  
\begin{verbatim}
wa - yedi (K)(*weyedi)  man
M  man  
cl
mi - muy (*mamuy)  yam
Pf  eye  
cl
wu - pidirri (*wepidirri)  dingo
C  dingo  
cl
\end{verbatim}

Note also that where the 'animal' bound class generic is copied onto modifiers of class members, it functions as a proclitic, not a prefix (cf. 5.5). As a proclitic it remains phonologically independent of its host, and is therefore unaffected by the vowel harmony process. This is demonstrated in 2-84 below.

2-84  
\begin{verbatim}
e - melpe  a - yeyi  another stingray
A-flat  A-other  
cl = stingray  cl
\end{verbatim}

(i.e. a-melpe → e-melpe, but a-yeyi → *e-yeyi)
We can therefore conclude, assuming a dynamic model for morphology, that vowel harmony is ordered after prefixation but before procliticisation.

Having established that a subset of bound classmarkers have been de-cliticised and function as prefixes, and having noted the implications of this function for the process of vowel harmony, I will return to the implications of this same opposition for the process of diphthongisation. This discussion has been deferred from 2.1.2.

The examples in 2-85 are 'animal' class member terms. On the nominal roots, each beginning with 'ye-', the 'animal' classmarker a- functions as a prefix (as established above). The examples in 2-86 are modifiers of 'animal' class members (also beginning with 'ye-') and therefore copy the classmarker as a proclitic not a prefix.

From the phonetic realisation forms of the phonemic forms in 2-85 and 2-86, it is evident that the classmarker a- is subject to diphthongisation where it functions as a prefix, but is blocked from this process where it functions as a proclitic. This accords with the different levels of phonological dependency operating between prefix/proclitic and host, as discussed in 5.5. We can conclude then, that the process of diphthongisation, like vowel harmony, is ordered after prefixation but before procliticisation.

We can further see, comparing 2-85 and 2-86 with 2-84 above, that diphthongisation precedes and blocks the application of the vowel harmony rule, e.g.

2-87 a-yerrsyadiphthongisation→ [atjerfʌ]

Were this not so, we would expect to find:

2-88 a-yerrsyavowel harmony→ eyerrsyadiphthongisation→ [etjerfʌ]
2.4.4.2 Vowel Harmony in the Complex Verb

We can now turn our attention to the operation of vowel harmony throughout the verbal morphology. Verbal structure is examined in 3.1, though to facilitate this discussion, let me briefly summarise it here.

The structure of the Ngan’gityemerri verb can be represented as:

SU - SU - Aux - dl /D/ I - Mp - Val - Body - Verb - Misc. enclitics
Pers. No. Root SU/O/O part Root

The first four morpheme positions (the subject person and number prefixes, the auxiliary root and the object suffixes) make up a constituent referred to as the 'auxiliary', and the following four morpheme positions form a constituent referred to as the 'complex verb stem'. Note that not all slots will necessarily be filled for any given verb.

Unlike the harmonic influences which operated consistently on the vowels of the two class prefixes discussed in 2.4.4.1, the same process within the verbal complex occurs both randomly and variably. What both these types of vowel harmony share is that they operate regressively from what can be perceived as the nucleus of the word. For the classmarkers this harmonic source is V₁ of the nominal root, and in the verbal complex, it is generally the verb root. Vowel harmony within the verb then can be broadly characterised in this way: vowels to the left of the verb root assimilate to the front/back quality of the stressed vowel of the verb root (occasionally we also find assimilation with respect to tongue height - see 2-94 for example).

Having established the verb root as the source of metaphonic influence, we can also note that the range of this process extends as far left as the auxiliary root. That is, vowel harmony can operate from the verb root leftwards across incorporated bodypart terms, the valency increasing and manipulative prefixes, the object suffixes and the auxiliary root. Vowel harmony never affects the vowel quality of the subject person and number prefixes.

We have already noted that not all morpheme positions of the verb need be filled. For example, not all verbs incorporate bodypart terms, and only transitive verbs with higher animates as non-subject arguments will have overt object suffixes. In its minimal form a verb consists simply of a subject prefix, an auxiliary root and a verb root. Under these conditions the auxiliary and verb roots are juxtaposed and vowel harmony can therefore work directly from the verb root onto the auxiliary root. Example 2-89 demonstrates this.
Example b) above is a good example of the variation found in the range of application of this process. It has been variously recorded as;

2-90 ngudupun - tidi
ngudipin - tidi
ngudipin - tidi

Example 2-91 below demonstrates regressive vowel harmony from the verb root onto an incorporated bodypart.

2-91 ngupun-me-fakurr → ngupun-ma-fakurr
1sgSlash-hand-break
SU Perf
I smashed it

And example 2-92 demonstrates regressive vowel harmony from the verb root onto both the indirect object suffix, and the auxiliary root.

2-92 ngude-mbi-wul-ngini → nguda -mbu-wul -ngini
1sgShoveDtrD-2sg -return-Fut
SU Irr IO
I'll return to you.

Finally, and in contrast to the generalisation given above, note the sporadic occurrence of vowel harmony originating not from the verb root, but from a position to the left of it. In 2-93 and 2-94 below, the vowel of the direct object suffix, and the bodypart term, respectively serve as the harmonic source.

2-93 ngubu-nyi-da-merrendi → ngubi -nyi-da -merrendi
1sgBash-2sg-hit-WARN
SU Irr DO
I might hit you !

2-94 ngumbudu-madi-fili-nana → ngumbuda -madi-fili -nana
1plincShove-chest-roll-WARN
SU IRR
.....lest we all tip over !
2.5 Word Stress

In Ngan'gityemerri, we need to operate with three stress rules; a syllable-timed stress rule for monomorphemic nominals; a second morpheme-timed stress rule for multi-morphemic nominals; and a third for the verbal complex in which stress serves to signal the auxiliary-complex verb stem constituency. These three stress rules are examined below in 2.5.1 - 2.5.3.

The analysis presented here deals in the concepts of both primary and secondary stress. In perceptual terms word stress is correlated with two factors; pitch contour (stressed syllables are pitched higher than unstressed syllables, in the absence of secondary stresses the pitch contour falls evenly over subsequent syllables); and amplitude (stressed syllables are generally 'louder' than unstressed syllables).

2.5.1 Stress on Mono-morphemic Nominals

Stress placement on monomorphemic nominals and free form grammatical particles and postpositions is relatively straightforward. They bear primary stress on their initial syllable, and secondary stress on every second subsequent syllable unless that syllable is word-final. The final syllables of a mono-morphemic nominal can never bear stress.

2-95 fépi rock, hill
mípurr man
dágum dew
gánggi high, upstream
détyengi (K) today
mínati (K) big
ápudèrri pubescent girl
áñemûni sweetheart

2.5.2 Stress on Multi-morphemic Nominals

2.5.2.1 Reduplication

In Ngan'gityemerri reduplication of verbal roots is a widespread and productive process, but reduplication of nominal roots is essentially restricted to a finite number of words, mostly animal names, derived through onomatopoeic representation of their cries.

Nominals are always reduplicated in full rather than partially, and such reduplication involves the copying of full stress marking onto both elements.
Only monosyllabic and disyllabic stems have been found to reduplicate in Ngan'gityemerri. There is no obvious reason why stems with a greater number of syllables would be precluded from this process, but as no examples have been found, we have no need to consider how secondary stress may have been treated in reduplications.

Although the examples in 2-96 above now formally have the stress characteristics of two phonological words, they cannot sustain a pause between them, and they behave as single words in respect of such grammatical criteria as their occurrence with nominal enclitics (2-97 a) and noun class proclitics (2-97 b).

2.5.2.2 Compounds

Compounds are like reduplications in that grammatically they behave as single words. However, unlike nominal reduplications which bear primary stress on each of the reduplicated elements, compounds have the stress pattern of single phonological words, in the sense that they bear a primary stress and subsequent secondary stresses. Stressmarking on compounds, though, differs from that on simple nominals by being morpheme-determined rather than syllable-determined.

The dimorphemic compounds in the following examples carry primary stress on the initial syllable of the initial morpheme, and then secondary stress on the initial syllable of the second morpheme, without regard to the syllable count between stresses.

| 2-96  | mákmák        | white sea eagle |
|       | willkwiliś    | galah           |
|       | wältkwáltku   | frog (gen.)     |
|       | tyüngettyünget | frogmouth owl   |
|       | bárrabárра    | placenta        |
|       | mágumágu      | left handed     |

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Although the examples in 2-96 above now formally have the stress characteristics of two phonological words, they cannot sustain a pause between them, and they behave as single words in respect of such grammatical criteria as their occurrence with nominal enclitics (2-97 a) and noun class proclitics (2-97 b).

2-97 a) wältkwáltku-nínggi
frog -AGENT
(*watku-ninggi watku-ninggi)

b) wa-márrmárrng
Mcl- extrovert
(*wa-marrng wa-marrng)

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| 2-98  | pí - piri     | brain | wántyírr - finy | armpit sweat |
|       | head - pus     |       | armpit - sweat  |
|       | fírr --ngàri   | toenail | tyéri - wündi | ear wax |
|       | foot - shell    |       | ear - wax       |
|       | yénggi - dàwan | smoke | fire - smoke    |
Note that in the first two of these examples, monosyllabic initial morphemes have resulted in contiguous stressmarked syllables. This stands in direct contrast to monomorphemic nominals where secondary stress always falls on the second subsequent syllable. Compounds containing reduplicated elements follow the patterns established separately for compounds and reduplications. Where the word-initial morpheme is reduplicated, each element bears a primary stress and the other element of the compound bears secondary stress, as in 2-99. Where the initial element of the compound is unrepeated, it bears the primary stress and each of the reduplicated elements bear secondary stress, as in 2-100.

2-99 milmil-mà cosmetic stick (for scraping skin etc.)

2-100 muy-fintyifintyi a crook (stick with a barbed fork for pulling branches within reach)

Other than those containing reduplications, tri-morphemic compounds are rare in Ngan'gityemerri, and the few examples that I have collected show variation in their stress marking. Example 2-101 a) below carries primary stressmarking on the initial syllable of the initial morpheme, then secondary stresses on the initial syllables of the second and third morphemes. This appears to be the normal pattern for lexical compounds, each morpheme bears a stress on the initial syllable. However 2-101 b), which differs only in the initial morpheme, has been recorded both with this expected stress pattern, and also with initial and second subsequent syllable stress, as though it were a simple nominal. With the corpus of trimorphemic compounds so small, it is difficult to know what to make of this variation.

2-101 a) bí - mài - mì back of thigh  
| thigh - chest - eye |

b) pí - mài - mì sternum  
pí - madi - mi  
| head - chest - eye |
2.5.2.3 Stress Marking on Classmarked Words

Section 5.5 details the conditions under which the bound noun class generics function as either proclitics or prefixes. The implications of this distinction for the application of vowel harmony and diphthongisation rules were examined in 2.4.4.1. This section examines the implications of this same phenomenon for the marking of word stress.

Where class generics function as proclitics, they are phonologically independent of their hosts (cf. 5.5). Their hosts, which may be simple nominals (noun/adjective roots, pronouns, demonstratives), reduplicated nominal roots, compounds, complex NP's, or complex verbs, constitute independent meaningful elements on their own. In accordance with this phonological independence, generic proclitics are not interpreted as part of the phonological word for the purpose of stress placement. The words to which they are attached are stressed in the same way that they would be in the absence of the proclitic. This is demonstrated in 2-102 to 2-106 below, where each type of host (simple nominal, reduplicated nominal, compound, complex NP and complex verb) is given with and without a class marking proclitic.

Simple nominal
2-102 a) kérre
   big
b) yerr-kérre
   Tr- big
   cl

Reduplicated nominal
2-103 a) màrrmàrrng
   happy-go-lucky
b) wur-màrrmàrrng
   F-happy-go-lucky
   cl

Compound
2-104 a) wásangari-pì
   clean -head
b) wa-wásangari-pì
   a bald man

23At least one exception to this statement is the word for ‘policeman’ - wamumu, coined by prefixing mumu - ‘taboo’, with the male class-marker wa-, which carries stress on the class-marker. This is not an example of a stressed proclitic, as wamumu appears to have been lexically re-analyzed as a baseform. As supporting evidence for this re-analysis we find that a ‘policewoman’ is not a wur-mumu, but a wur-wamumu.
Complex NP
2-105 a) détyerr wúnggume
    mouth one
b) a-détyerr-wúnggume
    A-mouth-one
c) A swordfish

Complex verb
2-106 a) yénim-wàlal-pi
    3sgGo-shake-head SUPres redup
    It (habitually) shakes its head.

2-106 b) a-yénim-wàlal-pi
    cl-3sgGo-shake-head SUPres redup
    a clickbeetle

On the other hand, bound noun class generics function as prefixes to those hosts that have no freeform status. The hosts to generic prefixes can be simple nominals, reduplicated nominals and compounds. Obviously they cannot be complex NP's or verbs, as these are always independent units. As prefixation precedes stress marking, these generic prefixes are therefore interpreted as part of the phonological word for the purpose of stress placement. The generic prefix, as the initial syllable of the phonological word, now carries the primary stress. Secondary stress is determined in the manner described in sections 2.5.1 to 2.5.2. For simple nominals, secondary stress falls on the second subsequent syllable, unless it is word-final, as in 2-107. On reduplicated nominals, secondary stress is copied onto both elements, as in 2-108. And in the case of compounds, secondary stress falls on the initial syllable of the second subsequent morpheme as in 2-109.

Simple nominal
2-107 a) á-kulèmbi
    water rat

2-107 b) wú-pidirri
    dingo

Reduplicated nominals
2-108 a) á-pèrrpèrr
    burdekin duck

2-108 b) é-mèn'gimèn'gi
    grey goshawk

Compounds
2-109 a) syíri-garrityin-muy
    boomerang

2-109 b) á-tyeri-wúsye
    frill-necked lizard
Note that where such nouns (i.e. those that are prefixed) are modified by an adjective, demonstrative or pronoun, the class generic will be copied onto that modifier as a proclitic. i.e the same class generic can be both prefix to class member terms, and proclitic to their modifiers.

2-110 á -kulèmbi a-kérre
    A-water rat  A-big
    cl           cl

mí-muy mi-lálirr
    Pf -yam     Pf- edible
    cl          cl

wú-pidirri wu-mákarri
    C -dingo    C- bad
    cl          cl

yérr-gi yerr-kínyi
    Tr -pandanus Tr- this
    cl          cl

We can conclude from this that not only the attachment of proclitics, but also the clitic copying rule, are ordered subsequent to stress assignment. Within a dynamic morphological model we could thereby order these operations in the following way.

prefixing > stress placement > clitic attachment > clitic copying

2.5.3 Word Stress on Verbs

The structure of the Ngan'gityemerri verb is described in detail in chapter 3 and has been briefly sketched out in 2.4.4.2. Readers are referred to either of these sections for definitions of 'auxiliary' and 'complex verb stem', and for descriptions of the constituency of these elements of the verb.

The discussion below looks firstly at the stress placement rules on 'simple verbs', then 'complex verbs', and concludes with some comments about the function of stress marking patterns within the synchronic verb structure.

2.5.3.1 Simple Verbs

Simple verbs show an interesting split between syllable-timed stress marking and morpheme-timed stress marking. Verbs of up to four syllables
pattern with simple nominals in bearing primary stress on their initial syllable, which will always be the bound subject pronoun\(^{24}\), and secondary stress on the third syllable if it is penultimate. Secondary stress cannot fall on a final syllable.

\[2-111\] a) \textbf{yé -menggeny} \hspace{1cm} \text{You arrived.} \\
2sg - Arrive \hspace{1cm} SU Perf

b) \textbf{yérr-menggëny-gu} \hspace{1cm} \text{You (dl) arrived.} \\
2pl - Arrive \hspace{0.5cm} -dl \hspace{1cm} SU Perf \hspace{0.5cm} SU

c) \textbf{ngí-ninggin} \hspace{1cm} \text{I'm looking.} \\
1sg - See \hspace{1cm} SU Pres

d) \textbf{ngíny-ninggënin-gu} \hspace{1cm} \text{We're looking at you.} \\
1pl - See \hspace{0.5cm} -dl \hspace{1cm} SU Pres \hspace{0.5cm} SU

In the few examples of four-syllable and five-syllable simple verbs, we find examples like \[2-112\] below, which follow this pattern;

\[2-112\] \textbf{géntyé-mëngge-gu} \hspace{1cm} \text{You (dl) shouldn't arrive.} \\
2pl - Arrive \hspace{0.5cm} -dl \hspace{1cm} US Irr \hspace{0.5cm} SU

but we also find examples like \[2-113\] below.

\[2-113\] a) \textbf{yé-menggeny-ngiti} \hspace{1cm} \text{You came to me.} \\
2sg - Arrive \hspace{0.5cm} -1sg \hspace{1cm} SU Perf \hspace{0.5cm} IO

b) \textbf{ngí-nyinggëny-nyì} \hspace{1cm} \text{I'm looking at you.} \\
1sg - See \hspace{0.5cm} -2sg \hspace{1cm} SU Pres \hspace{0.5cm} DO

\(^{24}\)The 'Arrive' and 'Say' auxiliaries (see auxiliary paradigms in the appendices A and B) have suppletive zero 3 sg bound pronouns in their present inflections. This is demonstrated for 'Arrive' below.

\[\begin{align*}
\text{eg.} & \quad \text{ngé-menggeny} - & \text{I arrived} \\
\text{yé-menggeny} & & \text{You arrived} \\
\text{mënggeny} & & \text{He arrived}
\end{align*}\]

In the case of these 3sg subject examples, the primary stress obviously falls on the initial syllable of the auxiliary root.
In 2-112 the secondary stress on the initial vowel of the second morpheme happens to be coincident with the third syllable of the word, so our syllable-timed stress rule is unproblematic here. However in 2-113 secondary stress falls not on the third syllable, but on the fourth. What may be happening here is that the psychological saliency of the morphology of the verb is overriding the normal stress rule, a process we have earlier seen to operate in stress placement on complex nominals. It seems in Ngan'gityemerri that there is a preference for marking stress on morpheme-initial syllables, where this does not disrupt the general principles of stress marking in a major way. In 2-113 a) and b) above, the bound direct and indirect object pronominal suffixes appear to be sufficiently 'salient' to motivate this preference.

2.5.3.2 Complex Verbs

Complex verbs carry primary stress on the initial syllable of the auxiliary, and secondary stress on the initial syllable of the Complex Verb Stem, regardless of their internal constituency. While the initial syllable of the auxiliary will always be the bound subject pronoun (though see footnote on previous page), the CVS may begin with a verb root, an incorporated bodypart, or a manipulative or valence increasing prefix. Using the symbol '=' to mark the boundary between the auxiliary and the CVS, the following examples show the application of this rule over a variety of CVS types. Tense and aspect markers that encliticise the CVS never bear stressmarking. Note also that in the absence of enclitics, stress can fall on the final syllable of a complex verb.

1-114  a) yéninya = pàp  
3sg Go - climb  
SU Perf  
He climbed up.

b) wirring - gu = dådà  
3nsSit - dl - sing  
SUPres SU redup  
They (dl) are singing.

c) yénim = mì - wap-nyine  
3sg Go - Val - sit - FOC  
SU Pres  
She's camped with (him) / She's married now.

d) ngàrim = fi - tyat  
1sgPoke - Mp-place  
SU Perf  
I built it.

e) yú = tyèrr - dum  
2sgSlash - mouth-bury  
SU Irr  
Shut the door!
2.5.3.2.1 Stress Marking on Reduplicated Verb Roots

The morphology and semantics of verb root reduplication is discussed in detail in 4.2.3.2. There are basically two ways that verbal roots can reduplicate, fully or partially. Partial reduplication always involves leftwards reduplication of only the initial open syllable of disyllabic roots.

2-115

| Kuluk          | cough               | → | Kululuk  |
| palak          | drop                | → | Papalak  |
| purity         | slip                | → | Pupurity |
| Fityi          | roll                | → | Fityi    |

Full reduplication, on the other hand, is always to the right, and involves the whole mono- or di-syllabic unit. The reduplicated syllable may be subject to vowel quality change (see 3.3.4.2).

2-116

| Da            | hit/shoot           | → | Dada      |
| Wa            | pick up             | → | Wawu      |
| Firkity       | spin                | → | Firkityfirkity |

Where either type of reduplicated verb root fulfils the conditions under which it will be stress marked (i.e. is the initial constituent of the CVS), secondary stress is copied onto both elements. This is demonstrated for partially reduplicated verb roots in 2-117 and 2-118, and for fully reduplicated verb roots in 2-119 to 2-121.

2-117

Nginki = kùkùluk-tye

1sg Sit - cough -Past

SU Plmp

I was coughing.

2-118

Yémi -ngiti=fifyi-pagu-pee

2sgHands-1sg - roll -HITH- Fut

SU Irr 10

Roll me some (smokes) !

2-119

Résgin wáddi = Wawu -tye

ration 3pl Go - pick up -Past

SU Plmp redup

They used to collect rations.
The car's running now.

I swung (the goanna) round 'n round, and wacked it on the ground.

They were trying to sew up dillybags.

They were throwing (a net) for livebait

I was telling you the story then.

2.5.3.3 Stress Marking on Serialised Auxiliary Verbs

As discussed in 3.4.6, the low-transitive posture/motion auxiliaries, 'sit', 'lie', 'stand' and 'go', can be serialised to complex verbs. In this capacity they, at least partially, lose their lexical semantics and become grammaticised as aspectual operators. These serialised auxiliaries cannot be offset by a pause, but must follow the complex verb in a single breath group. Their initial syllable carries a secondary stress, so verbs of this form are stressmarked in three places, 'primarily' on the auxiliary and 'secondarily' on the initial syllables of the CVS and the serialised auxiliary verb, respectively.

They were throwing (a net) for livebait

I was telling you the story then.

2.5.3.4 Comment

Summarising stress patterns in Ngan'gityemerri:

-We have seen that simple (monomorphemic) nouns, and 'simple verbs' (those consisting minimally of 'subject-auxiliary root' sequences) have a syllable-timed stress pattern with primary stress on the first syllable and secondary stress on the third syllable if it is not word-final.
Complex nominals, such as reduplications and compounds, have a morpheme-timed stress marking pattern. We also noted that as 'simple verbs' became increasingly complex (i.e. as direct and indirect object bound pronouns were suffixed to the 'subject-auxiliary root' sequence), then secondary stress began falling on the initial syllable of the pronoun, rather than the third syllable (see 2-99). I noted that for morphologically complex words there seems to be a preference for allocating stress marking in a way that reflects morphemic constituency.

- For complex verbs though, I find that stress is neither syllable-timed, nor morpheme-timed, but falls on the initial syllables of the auxiliary and the CVS, regardless of their syllabic or morphemic constituency. Put another way, stress patterns in the Ngan'gityemerri verb have the synchronic function of signalling the boundary between the auxiliary and the CVS. In a fixed-ordered, synthetic/agglutinative verbal structure, why should there be this higher-level grouping of a string of morphemes into two 'halves', and why should this have such saliency for the application of stress rules? The Ngan'gimerri data collected by Laves (1931) provides a historical viewpoint that suggests an explanation. A detailed comparison of the verbal structures exemplified in Laves' Ngan'gimerri data and my own data on contemporary Ngan'giwumirri, can be found in Reid (to appear). Just a brief summary is given here.

The 1931 Ngan'gimerri data suggests that the precursor to the contemporary Ngan'gityemerri verb structure, was a phrasal verb, consisting of a 'finite verb', and a freeform 'participle' (that shared at least some features of nominals). These two major elements of the phrasal verb appear to have formed separate phonological words. They could be ordered variably with respect to each other, and verbal enclitics could be copied onto both elements of the phrasal verb. Compare Laves' example below where the first word corresponds to the contemporary auxiliary, and the second word to the contemporary CVS.

Laves: Warrangitipe piparlandipe
Cont : Wárra - ngiti = fi - pal - endi - pe
Gloss: 3plPokeDtr-1sg - Tr - return- AGAIN-Fut
SU Irr IO
Trans: They'll come back for me later.

Laves' division of the elements of the phrasal verb into two phonological words, accords perfectly with our division of the same elements in the contemporary fixed-constituent structure into auxiliary and CVS. In Laves' data bound object pronouns are suffixes to the 'finite verb',
whereas in contemporary Ngan'gityemerri they are suffixes to the auxiliary. Likewise in Laves' data, the applicative prefixes fi- and mi- are incorporated bodyparts attached to the 'participle', whereas in contemporary Ngan'gityemerri they are prefixes to the verb root. In Reid (to appear) I suggest that within the last few generations the Ngan'gityemerri verb has undergone radical change. The 'finite verb' and 'participle' found in Laves' data, which functioned as separate phonological words, developed a fixed ordering and were 'glomped' together into a single phonological word. Verbal enclitics can no longer be copied onto both elements, as in 2-125 above, but are now attached to the complex verb unit.

If we accept that the 'finite verb' and 'participle' of the phrasal verb were separate phonological words, we can further presume that each of these two words would have borne primary stress on its initial syllable. In the contemporary Ngan'gityemerri verb, where these two 'halves' have been collapsed into a single phonological word, this pattern is essentially retained with primary and secondary stresses falling on the initial syllables of the auxiliary and CVS respectively. In conclusion then, the 'salience' of the boundary between the auxiliary and the CVS for the application of stress rules in contemporary Ngan'gityemerri can be accounted for in terms of the structural developments that the verb has (only recently) undergone.
Chapter 3

Morphology of the Ngan'gityemerri Verb

3.1 Overview of Verb Structure

3.1.1 Simple and Complex Verbs

There are two types of verb in Ngan'gityemerri: simple and complex. These are defined with respect to the constituent units 'auxiliary' and 'complex verb stem'. The presence of an auxiliary is a factor common to both verb types, though simple verbs consist minimally of just an auxiliary and are characterised by the absence of a complex verb stem.

The ten auxiliaries that form simple verbs are likewise referred to as 'simple auxiliaries'. The 'simple auxiliary' 'sit', forming a simple verb, is demonstrated in 3-1.

3-1 ngirim
  1sg Sit
  SU Pres
  I'm sitting.

The other 21 auxiliaries can only form verbs in combination with a verb stem. These auxiliaries are labelled 'complex auxiliaries' and the verbs they form are likewise known as complex verbs. The 'complex auxiliary' 'Hands', in combination with the verb stem -wurity 'make/fix', forming a verb meaning 'to make/fix something with one's hands', is demonstrated in 3-2.

3-2 ngerim -wurity
  1sg Hands-make
  SU Pres
  I'm making it.

The 21 'complex auxiliaries' cannot form simple verbs. Thus 3-3, an attempt to form a simple verb consisting minimally of the 'Hands' auxiliary, is nonsensical.

3-3 *ngerim
  1sg Hands
  SU Pres
However the 10 'simple auxiliaries' can, in addition to their role in forming simple verbs, also form complex verbs\(^1\). Compare the use of the 'simple auxiliary' 'Sit' in 3-4 where it forms a complex verb, with 3-1 above where it forms a simple verb.

3-4 \textit{ngirim-tyerrakul}  
\textit{1sgSit - talk}  
\textit{SU Pres}  
I'm talking.

Other than the 10 simple verbs then, all Ngan'gityemerri verbs are of the complex type, consisting of the two major units, the auxiliary and the complex verb stem. The complex verb constitutes a single phonological word (having only a single primary word stress, cf. 2.5.3) and is typically ordered with the verb stem following the auxiliary, as in 3-2 and 3-4. There are however two subclasses of verbs that are ordered inversely with the verb root preceding the auxiliary. These subclasses are:

1. The verb 'to want/like' formed with the 'Hands' auxiliary, e.g.

3-5 \textit{derrigidi-wurrumum-nga}  
\textit{want - 3plHands -1sg}  
\textit{SU Pres DO}  
They want/like me.

2. All complex verbs formed with the 'Say' auxiliary, e.g.

3-6 \textit{perrety-meny}  
\textit{die - 3sgSay}  
\textit{SU Perf}  
He died.  

3-7 \textit{parrng-yumum}  
\textit{snore - 2sgSay}  
\textit{SU Pres}  
You're snoring.

Regardless of their ordering with respect to each other, the meaning of any complex verb results from the combination of these two verbal units. The 31 Ngan'gityemerri auxiliary verbs are listed in Table 3-1. The semantics of these auxiliary verbs, and the patterns of their combination with verb stems, are examined in more detail in chapter 4. The following sections, 3.2 and 3.3, respectively deal with the morphological make-up of the auxiliary

---

\(^1\)In using the labels 'simple' and 'complex' to describe the two auxiliary types, I follow Green (1989). I appreciate that in at least one respect these labels might be considered counter-intuitive. That is, in their capacity to not only combine with verb stems (what I treat as the basic verb form), but additionally to stand independently as full verbs, the 'simple auxiliaries' could be viewed as functionally more complex than those 'complex auxiliaries' that only combine with verb stems. Despite this I have found Green's labels otherwise useful and have retained them here.
and the complex verb stem. 3.4 brings together the various ways in which tense, aspect and mood distinctions are made in Ngan'gityemerri, and 3.5 explores the syntactic constraints upon, and semantics of, the incorporation of bodypart terms into the complex verb.

**Ngan'gityemerri Auxiliary Verbs**

<table>
<thead>
<tr>
<th>Simple</th>
<th>Complex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sit</td>
<td>Hands</td>
</tr>
<tr>
<td>Lie</td>
<td>Feet</td>
</tr>
<tr>
<td>Stand</td>
<td>Mouth</td>
</tr>
<tr>
<td>Go</td>
<td>Poke</td>
</tr>
<tr>
<td>Go*</td>
<td>Slash</td>
</tr>
<tr>
<td></td>
<td>Bash</td>
</tr>
<tr>
<td></td>
<td>Hands oneself</td>
</tr>
<tr>
<td></td>
<td>Mouth oneself</td>
</tr>
<tr>
<td></td>
<td>Poke oneself</td>
</tr>
<tr>
<td></td>
<td>Shove oneself (dyn)</td>
</tr>
<tr>
<td></td>
<td>Shove oneself (stat)</td>
</tr>
<tr>
<td></td>
<td>Say/Do oneself</td>
</tr>
<tr>
<td></td>
<td>See oneself</td>
</tr>
<tr>
<td></td>
<td>Heat oneself</td>
</tr>
<tr>
<td></td>
<td>dash oneself</td>
</tr>
<tr>
<td></td>
<td>bash oneself</td>
</tr>
<tr>
<td></td>
<td>feet oneself</td>
</tr>
</tbody>
</table>

Table 3-1

3.2 Auxiliary Structure and Function

The auxiliary not only contributes to the overall lexical meaning of the verb, as mentioned in 3.1 and examined in chapter 4, but further, it indicates the person and number categories of core verbal arguments, and inflects for tense/aspect/mood categories.

The internal morphological constituency of the auxiliary can be characterised as four sequential slots. In the first of these, and thus generally word-initially, appear bound subject pronominal person markers. In the second slot we find subject number markers. The third slot is that of the auxiliary root, and the final auxiliary slot is filled by bound non-subject pronominal markers and further categories of subject number markers. As demonstrated in 3-8 below, and implicit in the notion of a linear string of slots, this four-part constituency is generally of a straightforward agglutinative nature.
They saw me.

Most of the affixing and compounding processes that build the complex verb in Ngan'gityemerri are in fact of this structural type and their segmentation is unproblematic. However the morphology of certain auxiliaries is more synthetic than agglutinative, and this kind of neat segmentation is not possible. As a consequence of this, other than throughout this discussion of auxiliary morphology, in all examples and texts throughout this work the auxiliary unit is glossed as a single element, without attempting to use hyphens to exemplify its internal constituency. Two of the difficulties in auxiliary segmentation are briefly listed here.

1. Consider the subject person, subject number and auxiliary root forms in 3-9.

<table>
<thead>
<tr>
<th>3-9</th>
<th>1sg</th>
<th>1pl ex</th>
<th>1pl inc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bash</td>
<td>nge-Ø-bem</td>
<td>nge-rr-bem</td>
<td>nge-mbe-bem</td>
</tr>
<tr>
<td>Pull</td>
<td>ngi-Ø-syem</td>
<td>ngi-rr-syem</td>
<td>ngi-mbi-syem</td>
</tr>
</tbody>
</table>

The position of the subject number markers (-Ø- sg, -rr- pl ex, and -mbV- pl inc) reveals the auxiliary roots to have the syllabic form CVC (-bem and -syem), and the subject person markers to have the syllabic form CV (nge- and ngi-). Across the auxiliary person/number paradigms (listed in appendices A & B) the majority of subject-auxiliary sequences fit this syllabic pattern. However consider the first person singular subject, present tense sequences of the 'sit', 'hands' and 'poke' auxiliaries in 3-10 (where the singular subject number marker is Ø).

<table>
<thead>
<tr>
<th>3-10</th>
<th>1sg-Sit</th>
<th>ngiirim</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg-Hands</td>
<td>ngeririm</td>
<td></td>
</tr>
<tr>
<td>1sg-Poke</td>
<td>ngaririm</td>
<td></td>
</tr>
</tbody>
</table>

As these subject-auxiliary sequences are distinguished by \( V_1 \), the analysis clearly suggested by these examples is to segment the bound subject person as C and the auxiliary root as VCVC.
As $V_1$ is not uniform across all subject-auxiliary sequences, and cannot be predicted in terms of vowel harmony rules operating reggressively from $V_2$, this analysis is initially attractive, but ultimately it creates more complexity than it solves. For instance, returning to the non-singular examples in 3-9, were we to accept C-VCVC as a pattern for subject-auxiliary sequences, to account for the occurrence of -rr- and -mbV- after the initial $V_1$, we would have to propose a discontinous auxiliary root (underlined in 3-12) within which -rr- and -mbV- were infixed.

3-12  
ng - e - rr - bem  
ng - i - rr - syem  
ng - e - mbe - bem  
ng - i - mbi - syem

The complexity engendered here by a C-VCVC analysis clearly surpasses its value in dealing better with the three examples given in 3-10.

2 Dual subject marking, which is normally encoded by -gV in the fourth and final auxiliary slot (as described in 3.2.1.2.2), is suppletively marked in the Past Imperfective inflections of certain auxiliaries by vowel change in the auxiliary root (see for instance suppletive nginne 'we were sitting' instead of the predicted form nginnigu in the Past Imperfective dual forms of the 'sit' auxiliary in Appendices A and B).

3.2.1 Subject Cross-referencing

In Ngan'gityemerri subjects are obligatorily cross-referenced by bound pronouns on the verb. Subject person is marked in the initial position of the auxiliary, (and thus generally is the initial morpheme of the verb), and subject number is marked in the second position of the auxiliary.

3.2.1.1 Subject Person Marking

In addition to the neutral subject marking described in 3.2.1.1.1, in Ngan'gityemerri there are two additional, though restricted, categories of bound subject pronoun. 'Remote' subjects are dealt with in 3.2.1.1.2 and 'Undesirable' subjects are treated in 3.2.1.1.3.

3.2.1.1.1 Neutral Subjects

In general subject person marking is very regular. 1st person is universally ngV-, and 2nd person is universally yV-.

3-13  
a) ngayi  
ngi-rim  
1sg  
1sg-Sit  
PRO  
SLI  
Pres  
I'm sitting.
b) nyinyi yi-rim  -  You're sitting.
   2sg  2sg-Sit
   PRO  SU  Pres

The vowel of the subject person marker is, for many subject-auxiliary sequences, identical with, and presumably harmonically influenced by, the vowel of the following auxiliary root. For certain subject-auxiliary sequences however, like those listed in 3-10, the vowel of the subject person prefix must be lexically specified.

It is only with 3rd person singular subjects that irregular and suppletive subject person forms occur, and there only in subject-auxiliary sequences that are inflected for the realis tense/aspect categories Present, Perfective and Past Imperfective. All 3rd singular Irrealis subjects, and 3rd non-singular subjects are universally wV-.

<table>
<thead>
<tr>
<th>3-14</th>
<th>wi -ri -pe</th>
</tr>
</thead>
<tbody>
<tr>
<td>3sg-Sit-Fut</td>
<td>SU Irr</td>
</tr>
<tr>
<td>S/He will be sitting.</td>
<td></td>
</tr>
</tbody>
</table>

For the 3rd singular subjects of realis Auxiliaries, we find three types of variation from the neutral wV- marking exemplified in 3-14.

1- Suppletive yV- initial forms

<table>
<thead>
<tr>
<th>3-15</th>
<th>Actual form</th>
<th>Expected 3sg form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go 1sg</td>
<td>ngaganim</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>yaganim</td>
<td>waganim</td>
</tr>
<tr>
<td>3sg</td>
<td>yenim</td>
<td></td>
</tr>
<tr>
<td>Take 1sg</td>
<td>ngagantyin</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>yagantyin</td>
<td>wagantyin</td>
</tr>
<tr>
<td>3sg</td>
<td>yentyin</td>
<td></td>
</tr>
<tr>
<td>Go* 1sg</td>
<td>ngerrimbin</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>yerrimbin</td>
<td>werrimbin</td>
</tr>
<tr>
<td>3sg</td>
<td>yirrimbin</td>
<td></td>
</tr>
</tbody>
</table>

2- Irregular zero forms

<table>
<thead>
<tr>
<th>3-16</th>
<th>Actual forms</th>
<th>Expected 3sg form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Say 1sg</td>
<td>ngu-mum</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>yu -mum</td>
<td>wumum</td>
</tr>
<tr>
<td>3sg</td>
<td>mem</td>
<td></td>
</tr>
<tr>
<td>Arrive 1sg</td>
<td>nge-men'gem</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>ye -men'gem</td>
<td>wemen'gem</td>
</tr>
<tr>
<td>3sg</td>
<td>men'gem</td>
<td></td>
</tr>
</tbody>
</table>
The most frequently found variation where 3sg subject is marked as dV-.

<table>
<thead>
<tr>
<th>3-17</th>
<th>Actual form</th>
<th>Expected 3sg form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>ngi-rim</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>yi -rim</td>
<td></td>
</tr>
<tr>
<td>3sg</td>
<td>dim²</td>
<td>wirim</td>
</tr>
<tr>
<td>1sg</td>
<td>ngi-nyinggin</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>yi -nyinggin</td>
<td></td>
</tr>
<tr>
<td>3sg</td>
<td>di -nyinggin</td>
<td>winyinggin</td>
</tr>
<tr>
<td>1sg</td>
<td>nge-rim</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>ye -rim</td>
<td></td>
</tr>
<tr>
<td>3sg</td>
<td>dem</td>
<td>werim</td>
</tr>
<tr>
<td>1sg</td>
<td>ngi-syem</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>yi -syem</td>
<td></td>
</tr>
<tr>
<td>3sg</td>
<td>di -syem</td>
<td>wisyem</td>
</tr>
<tr>
<td>1sg</td>
<td>nga-ram</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>ya -ram</td>
<td></td>
</tr>
<tr>
<td>3sg</td>
<td>da -ram</td>
<td>waram</td>
</tr>
<tr>
<td>1sg</td>
<td>nge-mem</td>
<td></td>
</tr>
<tr>
<td>2sg</td>
<td>ye -mem</td>
<td></td>
</tr>
<tr>
<td>3sg</td>
<td>de -mem</td>
<td>wemem</td>
</tr>
</tbody>
</table>

3.2.1.1.2 'Remote' Subjects

In the immediately preceding section we noted that the 3rd person subject marker is basically wV-, though 3rd singular subjects show a variety of suppletive and irregular forms. Treating all four of the attested realisations (wV-, yV-, Ø-, dV-) as a single system called 'wV- marking', this system contrasts with another 3rd person bound subject marker of the form gV-, referred to as 'gV- marking'.

The functional nature of the contrast between 'wV- marking' and 'gV- marking' has been problematic for me, and appears to have been so for previous investigators of the language, for each has drawn different conclusions.

---

2This form and dem in 'Hands' are underlyingly dirim and derim, respectively. They undergo contraction in accordance with regular morpho-phonological rules (see 2.4.2 and 2.4.3).
Gerhardt Laves (193? fieldnotes) notes this variation in Ngan'gimerri, and suggests that the basis for the contrast is one of deixis, ie proximate versus distant, and gives the following example.

3-18 Qu djide³ wibem - Where is it?
where 3sg Lie
SU Pres

Ans ginji gibem - It's here.
here 3sg Lie
SU Pres

Laves does not indicate which of wV- and gV- is proximate and which distant, though from his example I would presume that he intends gV- 'proximate' and wV- 'distant'.

Hoddinott and Kofod (1989:113) describe this variation as one of aspect, giving examples such as the Ngan'gikurunggurr one quoted below.

3-19 a) wa -weti gudem -fel dirrpederr-nide
C(iv)little 3sIMP VC 10-dive river -LOC
The little boy is diving into the river.

b) wa -weti wudem -fel dirrpederr-nide
C(iv)little 3sP VC 10 -dive river -LOC
The little boy dived/dives into the river.

They attribute gV- marking to 'Present Incompletive' aspect, and wV- marking to 'Present (including Immediate Past) Completive' aspect. The main failure of H&K's analysis is that it leaves us with two conflicting aspect marking systems. Aspectual information is normally marked in Ngan'gityemerri through the combination of auxiliary root inflection (cf. 3.4.1) and through the strategy of serialising posture/motion auxiliaries to the complex verb (cf. 3.4.5). It is auxiliary serialisation that specifically marks imperfective, progressive aspect, as in the example below.

3-20 warrgudu ngerim -wurity -ngirim
dillybag 1sgHands -make -1sgSit
SU Pres SU Pres
I am (as I speak, in the process of) making a dillybag

3Retaining Laves' orthography. Ngan'gimerri djide-'where' is kide in both Ngan'giwumirri and Ngan'gikurunggurr, a minor bit of evidence suggesting that voiced laminals may have shifted to dorsals in the current phonological systems of the latter two dialects which lack voiced laminals.
H&K (1989:134) note the imperfectivity marked by auxiliary serialisation, but offer no account of how this might tie in with the aspectual significance they attribute to gV- versus wV- marking. In fact their own data on serialised auxiliaries conflicts with the perfectivity they attribute to wV-marking. They give examples like those quoted in 3-21 below, where both gV- and wV- subject forms appear on verbs that are marked for imperfective, progressive aspect through the serialised auxiliary strategy.

3-21  a) aliyi  gawam  pudup  girim  
      C(iv)fat 3sIMP-VC26-PRES  melt  OA:3sIMP-sit-PRES  
The fat is melting.

b) Bi  dem  baty  wirribem  
    axe  3sP-VC13-PRES  have  OA:3sP-stand-PRES  
He has an axe in his hand.

In terms of H&K's analysis, 3-21 b) above is marked for both perfectivity and imperfectivity; perfectivity denoted by the dV- subject marker, and imperfectivity by the serialised stance auxiliary wirribem.

I find the variation between gV- and wV- subject marking to be a contrast between remote and proximate, not simply in deictic terms, as Laves has suggested, but also in conceptual terms. In my data the vast majority of present tense verbs showing gV- subject marking employ stative auxiliaries, either the postural 'sit', 'lie', and 'stand' auxiliaries, as in examples 3-22 to 3-25, or the motional 'go' and 'go*' auxiliaries, as in examples 3-26 to 3-28. With stative auxiliaries gV- marking denotes states that are remote from the speaker, either spatially distant or conceptually distant - activities or states that are in some way outside the speaker's immediate world, perhaps out of sight as in 3-23 and 3-24 below, or perhaps beyond the speaker's firsthand knowledge. In the example glosses wV-subjects are given as SU (Subject), and remote gV-subjects as SR (Subject Remote).

3-22  ..peyi-pefi  girrim,  nginyirri-wurr  
in  -THITH  3plSit  1sg  See  - 3pl  
place  SR  Pres  SU  Perf  DO  
(We went) over there where I could see them sitting.

4 The label they use is 'Orientation Auxiliaries'.

3-23 Yu wetimbi kinyi gibem
yes FINE here 3sgLie
SR Pres
Yeah OK!, (the didjeridu) is here (inside the house/out of sight).

3-24 Tyemeny girim -tyerrakul yi -tyerr -gat -pe
3sgSit -talk 2sgSit-mouth-answer-Fut
SR Pres SU Irr
It's Tyemeny talking (on the phone), will you speak?

3-25 Yu Darwin kine, wembem yaga, buy -gumum-derri-gaganim
yes this house DEM white-3sgDo -back -3sgGo
place SR Pres SR Pres
Yes, this is Darwin alright, the houses are standing out white in the distance.

With the two motional auxiliaries 'Go' and 'Go*' 3sg gV- marking also implies motion or activity 'at a distance', often 'approaching from a distance'.

3-26 light fil -gumum-muy-gamanterri
shine-3sgDo -eye -3sgGo*
SR Pres SR Pres
(From the plane we could see the Adelaide) lights coming on/getting closer.

3-27 kanbi -mbirri gaganim-garrmadi nginnyirri
didjeridu-first 3sgGo -approach 1plexSee
SR Pres SU Perf
We saw that the didjeridu was coming up first (on the airport luggage conveyor belt).

3-28 Wur-nurse kinyi dini -tye fepi minbadi, mudiga-werre gaganterri
F - here 3sgSit-Past hill big car -ASSOC 3sgGo*
ci SU Plmp SR Pres
That nurse, who used to live here at Peppimenarti, was approaching in a car.

Other than the stative posture/motion auxiliaries, remote gV- subject marking has only been recorded with the two 'transitive' auxiliaries (cf. 4.2.1) 'Feet' and 'Mouth'. 3-29 and 3-30 are the only such examples in my data.

3-29 ngayim mityity minbe fenggiderri gana -garrmadi mudiga-werre
3sgF white Neg long time 3sgFeet-approach car -ASSOC
PRO woman SR Perf
Before long that white woman came along in a car.
3-30 a miyi nyin germiny-didi -ganniny,
finally plant ANA 3plHands-push-3plGo
food SR Perf SR Perf
They (hostesses) came pushing the food(trolley),
wanni -wurr-fi -me -lali -tye -waddi ngan-ngagurr warrakma
3plPoke -3pl -Mp-hand-around-Past-3plGo LOC- 1plex three
SU Plmp DO SU Plmp PRO
handing it around to them all, then finally to us three.

3.2.1.1.3 'Undesirable' Subjects

In Ngan'gityemerri irrealis verbs with 2nd or 3rd person subjects can, through the selection of specific subject pronominal forms, be marked as representing propositions that the speaker would not wish to reach fruition.

There are several important observations to be made here. Firstly, the 'undesirable' evaluation conveyed by these variant subject prefixes, is the evaluation of the speaker, not the subject. Secondly, the 'undesirable' evaluation of the speaker is an evaluation of the entire verbal proposition, not simply of the subject identity. Thirdly, the undesirability of the development of a proposition that is marked in this way, can only be encoded on verbs with 2nd and 3rd person subjects.

The forms of the 2nd and 3rd person 'Undesirable' subjects are gVntyV-/gVtyV-(K) and gV- respectively (where -V- has the same quality as the -V- of the corresponding neutral bound subject marker, as given in 3.2.1.1.1 above). In the examples throughout this section they are glossed as US 'Undesirable Subject', in contrast to SU 'neutral Subject' and RS 'Remote Subject'. Before looking at some examples, Table 3-2 below sets out the full Ngan'gitiwumirri Irrealis subject-auxiliary sequences of the 'Sit', 'Go' and 'Hands' auxiliaries, showing the 2nd person subject variation between neutral yV- and 'Undesirable' gVntyV-, and the 3rd person subject variation between neutral wV- and 'Undesirable' gV-.

'Undesirable' subject person pronouns can be used to mark the undesirability of any event that is expressed in irrealis verbal forms. This may be straightforward conjecture, as in 3-31.

3-31 nimbi ginnyirrigu, dede -ne ga -wurrki-tyeri-tyirr
CAUS 3pl See dl country-PURP 3sgPoke -3dl -ear -squeeze
US Irr SU US Irr DO =feel longing
If they two were to watch it (a video containing footage of a recently deceased person), it would make them sorry for their country.
Ngan'giwumirri Neutral and 'Undesirable' Bound Subject Pronouns

<table>
<thead>
<tr>
<th>Sit</th>
<th>Neutral</th>
<th>Undesirable</th>
<th>Go</th>
<th>Neutral</th>
<th>Undesirable</th>
<th>Hands</th>
<th>Neutral</th>
<th>Undesirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ngi</td>
<td>ngani</td>
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<td>ngi</td>
<td>ngani</td>
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<td>ngem</td>
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<td>ngarrene</td>
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<td>yarrene</td>
<td>gantyarren</td>
<td></td>
<td></td>
<td>yerrmigi</td>
<td>gentyerrmig</td>
</tr>
<tr>
<td>3</td>
<td>wirrigu</td>
<td>girrigu</td>
<td>warren</td>
<td>garren</td>
<td></td>
<td>werrmig</td>
<td>gerrmig</td>
<td></td>
</tr>
<tr>
<td></td>
<td>linc</td>
<td>ngimbi</td>
<td></td>
<td>ngambani</td>
<td></td>
<td></td>
<td>ngembimi</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lex</td>
<td>ngirrr</td>
<td></td>
<td>ngarrani</td>
<td></td>
<td></td>
<td>ngerrmi</td>
<td></td>
</tr>
<tr>
<td>Pl 2</td>
<td>yirri</td>
<td>gintyirri</td>
<td>yarrani</td>
<td>gantyarrani</td>
<td></td>
<td></td>
<td>yerrmi</td>
<td>gentyerrmi</td>
</tr>
<tr>
<td>3</td>
<td>wirri</td>
<td>girri</td>
<td>warri</td>
<td>garrani</td>
<td></td>
<td>werrmi</td>
<td>germi</td>
<td></td>
</tr>
</tbody>
</table>

Table 3-2

'Undesirable' subject person pronouns also typically appear in those 'prohibition', 'warning' and 'lest' constructions employing the enclitic -merrendi/-nana(K) (cf. 6.2.3).

3-32 ...gemi -nyi-garri-du -merrendi
3sgHands -2sg -leg -touch-LEST
US Irr DO
...lest you get pregnant.
(lit: lest it touch you on the leg)

3-33 ...efenggu gebi -nyi-gatit-nana
NgK snake 3sgBash-2sg-bite -LEST
US Irr DO
...lest a snake might bite you.

3-34 wunu dede minbe-merrendi gantyani dede mumu mipurr nem
there camp Neg -PROHIB 2sg Go camp taboo men 3sgM
US Irr PRO
You can't go there, it's a taboo men's place.

3-35 aya kinyi pub, awa-purrpurrk minbe-merrendi gantyarrini-wurr
hey this Hg - littl'uns Neg -PROHIB 3plGo -enter
cl US Irr
Hey! this is a pub. Young kids aren't allowed in here!
3-36 below contains both a 'prohibitive' -merrendi clause and a clause of undesirable conjecture. In both clauses the subject is pronominally cross-referenced with the 'Undesirable' subject person forms.

3-36 kanbi yaga minbe-merrendi gantyawam airplane-nide,

\[\text{didjeridu DEM Neg -PROHIB 2sgTake -LOC} \]
\[\text{US Irr} \]
You can't take that didjeridu on the plane,

\[\text{nimbi gani -lala ngarapa-wurru,} \]
\[\text{CAUS 3sgGo-split fragile-UNSATIS} \]
\[\text{US Irr} \]

it might split, it's too fragile.

3.2.1.2 Subject Number Marking

Where subject \textit{person} is marked fairly straightforwardly in the initial position of the auxiliary, the task of marking subject \textit{number} falls on a variety of verbal positions, both within, and outside of, the auxiliary unit. This diverse multi-marking system reflects the hierarchical system of number category formation. Increasingly marked number categories are derived by taking simpler number categories as a base and adding additional morphological marking in new verbal slots. We need to deal here with two separate hierarchical structures, for subject number marking shows the same split between 1st inclusive and non-1st inclusive that requires the separate description of these two categories in the discussion of free form pronouns (cf. 9.1.1). From the examples and discussion in the following sections it will become apparent that 1st inclusive subject number operates in terms of the markedness hierarchy;

/singular < dual < plural/

whereas non-1st inclusive operates in terms of the markedness hierarchy:

/singular < plural < dual < trial/

In section 3.2.1.2.1 below I deal first with 1st inclusive subject number marking, then in section 3.2.1.2.2 with the non-1st inclusive.

3.2.1.2.1 1st Inclusive Subject Number Marking: -nime

Taking the first person singular subject-auxiliary sequences as the base form (assuming the singular number marker to be \(\emptyset\)), the first person dual inclusive is formed by adding -\textbf{mbV}- in the auxiliary position immediately following the subject person marker and preceding the auxiliary root. The plural, which is a more marked number category than the dual for first inclusives, is marked by the additional suffixing of the restricted plural marker -\textbf{nime} to the verb. The singular, dual and plural subject forms of the 'Lie' auxiliary are set out in 3-37 below.
From 3-37 b) and c) it can be seen that the suffix -nime derives 1st inclusive plurals from 1st inclusive duals on the freeform as well as the bound pronouns.

Suffixed to simple verbs, -nime appears in the position immediately following the auxiliary unit, and preceding any other enclitics that can attach to the verbal complex, such as the past tense marker in 3-38.

Suffixed to complex verbs, -nime appears in the position immediately following the verb root, as shown in 3-39 where the 'Pull' auxiliary forms a complex verb in combination with the verb root -wurr 'extract'.

Examples 3-37 to 3-39 show that the -V- of -mbV- is determined progressively from the bound subject person prefix, not regressively from the auxiliary root. The same observation was made regarding the vowel quality of the 2nd person 'Undesirable' subject pronouns in 3.2.1.1.3. Note that this progressive harmony contrasts with the general vowel harmony process that operates at the surface level on verbs (cf. 2.4.4.2), which is always clearly regressive.
While the underlying form of the 1st inclusive non-singular marker -mbV- occurs in about 90% of surface forms, various phonological rules operating on the sound sequences formed across the boundary between the subject number marker and the auxiliary root, result in surface variation that needs to be accounted for.

Firstly, consider the unsegmented present tense 1st singular and 1st dual inclusive forms of the 'Sit', 'Hands' and 'Poke' auxiliaries in 3-40 to 3-42, where -mbV- prefixes an auxiliary root that is r- initial.

3-40 a) ngirim
   1sgSit
   SU Pres
   I'm sitting.

b) ngindim
   1dlincSit
   SU Pres
   We (dlinc) are sitting.

3-41 a) ngerim -pul
   1sgHands-wash
   SU Pres
   I'm washing it.

b) ngendim -pul
   1dlincHands-wash
   SU Pres
   We (dlinc) are washing it.

3-42 a) ngarim -pawal
   1sgPoke-spear
   SU Pres
   I'm spearing it.

b) ngandim -pawal
   1dlincPoke-spear
   SU Pres
   We (dlinc) are spearing it.

These dual surface forms are explicable in terms of the apicalisation and deletion rules described in 2.4.2 and 2.4.3. Taking 3-40 as an example, we can see that this r-initial auxiliary root triggers apicalisation of the -mbV- subject number prefix;

3-43 (ngi-mbi-rim) → (ngi-ndi-rim)

then a morphophonological process that reduces contiguous apical syllables, triggers the deletion of -ri-.

3-44 (ngi-ndi-rim) → ngi-ndi-m

Secondly, the single auxiliary root that is g-initial also triggers velarisation, deletion and some vowel change. Consider the 1st singular and 1st dual inclusive forms of the 'Go' auxiliary below.
Note that in all examples of dual inclusive surface forms that result from the application of assimilation and deletion rules (3-40 to 3-42 and 3-45), the \(-V\) of underlying \(-mbV\) is no longer predictable in terms of the vowel quality of the \(-V\) of the bound subject person prefix.

Thirdly, auxiliary roots that are n-initial, or have the minimal form \(-N\), show considerable variation in the surface forms that result from their \(-mbV\)-prefixation. While 3-46 and 3-47 below trigger apicalisation, and in 3-48 we find both apicalisation and deletion, in 3-49 and 3-50 neither of these processes occur.

3-46

a) \(\text{ngiene} -N\)

\(\text{NgK}\)

1sg -Say
SU Perf

\(\text{We (dlinc) said.}\)

b) \(\text{ngiene-nde} -N\)

\(\text{1st -dlinc -Say}\)
SU SU Perf

3-47

a) \(\text{nge} -N -baty\)

\(\text{NgK}\)

1sg -Mouth-chew
SU Perf

\(\text{We (dlinc) chewed it.}\)

b) \(\text{nge-nde} -N -baty\)

\(\text{1st-dlinc-Mouth-chew}\)
SU SU Perf

3-48

a) \(\text{ngiene-nem} -bulbul\)

\(\text{NgK}\)

1sg -Heat-boil
SU Perf

\(\text{I cooked it.}\)

b) \(\text{ngiene-nde} -m -bulbul\)

\(\text{1st-dlinc-Heat-boil}\)
SU SU Perf

3-49

a) \(\text{ngiene-nam-baty}\)

\(\text{1sg-Feet-kick}\)
SU Perf

\(\text{I kick it.}\)

b) \(\text{ngiene-mba -nam-baty}\)

\(\text{1st -dlinc-Feet -kick}\)
SU SU Perf

\(\text{We(dling) kick it.}\)
3.2.1.2.2 Non-1st Inclusive Subject Number Marking: -rr-, -gu and -nime

Turning our attention to the marking of subject number for 1st exclusive, 2nd and 3rd person subjects, recall that we have an additional number category, trial, and that the number markedness hierarchy is;

Singular < Plural < Dual < Trial

While dual was the unmarked non-singular number category for the 1st-inclusives, for the non-1st-inclusives it is the plural category that is least marked.

Again taking the singular forms as a base, and assuming the singular subject number marker to be zero, we find that each number category is formed by augmenting the category below it on the hierarchy, with additional marking in a new verbal slot. Plural subjects are marked by -rr- in the auxiliary position immediately following the subject person marker.

Dual subject number is marked by (in addition to the plural -rr-) -gV in the fourth position within the auxiliary, i.e. immediately following the auxiliary root. Note that this same slot within the auxiliary can also be filled by non-subject bound pronouns which outrank -gV for access. Dual subject -gV is therefore generally restricted to occurrence in intransitive verbs, or transitive verbs with 3rd singular Ø object pronouns. There is however a set of portmanteau bound pronouns that encode subject duality in addition to object person and number. These are discussed in more detail in 3.2.3.2.

Trial subjects further augment the dual form with -nime in the position immediately following the auxiliary unit in the case of simple verbs, or immediately following the verb root in the case of complex verbs. Note then that while the addition of the suffix -nime derives plural from dual 1st-inclusive forms, in the case of non-1st-inclusive subjects, the same suffix form derives specifically trial forms. The formation of these three non-singular number categories is demonstrated in 3-51.
As can be seen from these examples, morphological markedness parallels semantic markedness. That is, increasingly restricted and specific number categories are increasingly morphologically complex. The trial number category, being so highly marked in both senses, tends not to be exploited where such high markedness is pragmatically unwarranted. So Ngan'giwumirri and Ngan'gikurunggurr speakers, in a discourse involving three subject persons, would tend to employ plural subject marking, unless the subjects' 'threesomeness' is perceived to be significant.

Turning our attention to the morphology of these subject number morphemes, the remainder of this section looks at the phonological processes operating on the clusters formed when -rr- prefixes the auxiliary root, commenting on the vowel quality of -gV and presenting some examples of suppletive dual subject number formation.

Plural exclusive -rr-

As auxiliary roots are always consonant-initial, the occurrence of the non-1st inclusive non-singular subject number marker -rr-, in the auxiliary position immediately preceding the auxiliary root, always produces a -rrC-cluster. Five undesirable cluster types resulting from this affixation trigger some of the phonological rules that we have already seen to operate in 2.4.2.1.

1 Where the auxiliary root initial consonant is an apical oral or nasal stop, eg. -rrC/N[+apical], then -rr- assimilates in manner, producing a geminate stop cluster. This is demonstrated by the 1st person singular and plural forms of three Present tense auxiliaries in 3-52 below.

3-52

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>underlying plural</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Feet</td>
<td>nganam</td>
<td>(nga-rr-nam)</td>
<td>nganam</td>
</tr>
<tr>
<td>b) Shove</td>
<td>ngudum</td>
<td>(ngu-rr-dum)</td>
<td>nguddum</td>
</tr>
<tr>
<td>c) ShoveDtrDngudem</td>
<td>(ngu-rr-dum)</td>
<td>nguddum</td>
<td></td>
</tr>
</tbody>
</table>
In Ngan'giwumirri -rr- additionally assimilates in both manner and articulatory type when it precedes the laminal nasal ny, producing geminate laminal nasal clusters as in the plural forms of 'See' and 'SeeDtr' in 3-53 below.

3-53

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>underlying plural</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) See</td>
<td>nginyinggin</td>
<td>(ngi-rr-nyinggin)</td>
<td>nginnyinggin&lt;sup&gt;5&lt;/sup&gt;</td>
</tr>
<tr>
<td>b) SeeDtr</td>
<td>nginnyerrem</td>
<td>(ngi-rr-nyerrem)</td>
<td>nginnyerrem</td>
</tr>
</tbody>
</table>

Laminal assimilation of -rr- is not triggered in this same environment in Ngan'gikurunggurr, where the cluster rrny is maintained. Compare the plural surface forms of 3-53 and 3-54.

3-54

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>NgK a) See</td>
<td>nginyinggin</td>
<td>ngirrrnyinggin</td>
</tr>
<tr>
<td>b) SeeDtr</td>
<td>nginnyerrem</td>
<td>ngirrrnyerrem</td>
</tr>
</tbody>
</table>

2 Where the auxiliary root is r-initial, the continuant r is deleted and the underlying cluster rr + r is realised simply as rr. This is demonstrated in the plural forms of Sit, Poke and PokeDtr in 3-55 below.

3-55

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>underlying plural</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Sit</td>
<td>ngirim</td>
<td>(ngi-rr-rim)</td>
<td>ngirim</td>
</tr>
<tr>
<td>b) Poke</td>
<td>ngarim</td>
<td>(nga-rr-rim)</td>
<td>ngarrim</td>
</tr>
<tr>
<td>c) PokeDtr</td>
<td>ngaram</td>
<td>(nga-rr-ram)</td>
<td>ngarram</td>
</tr>
</tbody>
</table>

3 Where the auxiliary root is rr-initial, the underlying cluster rr + rr is treated quite differently in Ngan'giwumirri and Ngan'gikurunggurr. In Ngan'giwumirri it is realised as a clearly geminate voiced apical stop, in Ngan'gikurunggurr the second element of the cluster is realised as the voiced apical retroflex fricative, ie. rr + s. This difference in the plural surface forms in the two languages is shown in 3-56.

3-56

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>underlying plural</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) NgW Stand</td>
<td>ngirribem</td>
<td>(ngi-rr-rrribem)</td>
<td>ngirrrribem</td>
</tr>
<tr>
<td>b) NgK Stand</td>
<td>ngirribem</td>
<td>(ngi-rr-rrribem)</td>
<td>ngirrrribem</td>
</tr>
</tbody>
</table>

<sup>5</sup>In the practical orthography the geminate laminal nasal cluster is written as nny rather than nyny, because the contrast between n and ny is neutralised pre-consonantally.
For some subject-auxiliary sequences, note the appearance of a vowel between \( rr + C \). The occurrence of this vowel cannot be predicted from all the same underlying forms across the auxiliary class paradigms. For instance, \( rr + n \) in 'Feet' (in 3-52 a) above) is realised as a geminate apical nasal, but in 'Go' (Irr) in 3-57 below, the same underlying cluster involves the insertion of a vowel between -rr- and the initial consonant of the auxiliary root.

### 3-57

<table>
<thead>
<tr>
<th>singular</th>
<th>underlying plural</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go</td>
<td>nga-rr-ni</td>
<td>ngarrani</td>
</tr>
</tbody>
</table>

See also the NgK 'Slash'(Pres) subject-auxiliary sequence in 3-36.

### 3-58

<table>
<thead>
<tr>
<th>singular</th>
<th>underlying plural</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>NgK a) Slash</td>
<td>ngu-rr-puN</td>
<td>ngurrupuN</td>
</tr>
</tbody>
</table>

This kind of vowel insertion would appear to be the normal way of deriving the plural forms of those few auxiliary roots that consist minimally of a nasal consonant. The examples below show the surface plural forms of Mouth and ShoveDtrS (Pres).

### 3-59

<table>
<thead>
<tr>
<th>singular</th>
<th>underlying plural</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Mouth</td>
<td>nge-rr-m</td>
<td>ngerrem</td>
</tr>
<tr>
<td>b) ShoveDtrDngim</td>
<td>ngi-rr-m</td>
<td>ngirrim</td>
</tr>
</tbody>
</table>

One possibility suggested by the appearance of these vowels here, is that an historical form of the plural exclusive subject number morpheme was -rrV-. It could be argued that although this form is still evidenced in minor parts of the auxiliary paradigms (as in 3-57 to 3-59), generally the vowel has been lost, this reduction resulting in consonant clusters at the boundary between subject number marking and the auxiliary root.

### 5

Three auxiliary root-initial phonemes of weak consonantal status (ie. without radical vocal tract obstruction), \( g, sy \) and \( w \), are sporadically found to be deleted following -rr-. In 3-60 below, both plural forms are underlingly \( rr + w \). In 'Take' (Irr) the cluster is maintained, but in 'SayDtr' (Pres) the \( w \) is lenited.

### 3-60

<table>
<thead>
<tr>
<th>singular</th>
<th>underlying plural</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Take</td>
<td>nga-rr-wam</td>
<td>ngarrwam</td>
</tr>
<tr>
<td>b) SayDtr</td>
<td>ngi-rr-wem</td>
<td>ngirrim</td>
</tr>
</tbody>
</table>
Lenition of g following -rr- is more common in Ngan'gikurunggurr than in Ngan'giwumirri. See their corresponding forms for 'Take' (Pres) in 3-61.

3-61

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>underlying plural</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) NgW Take</td>
<td>ngagantyin</td>
<td>nga-rr-gantyin</td>
<td>ngarrgantyin</td>
</tr>
<tr>
<td>b) NgK Take</td>
<td>ngagatyin</td>
<td>nga-rr-gatyin</td>
<td>ngarratyin</td>
</tr>
</tbody>
</table>

In Ngan'giwumirri the two auxiliary roots that are sy-initial ('Puli' and 'Suck'), frequently lenite the sy as a free variant of the full cluster.

3-62

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>underlying plural</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Pull</td>
<td>ngisyem</td>
<td>ngi#rr#syem</td>
<td>ngirrsyem/ngirrem</td>
</tr>
<tr>
<td>b) Suck</td>
<td>ngusyum</td>
<td>ngu#rr#syum</td>
<td>ngurrsyum/ngurrum</td>
</tr>
</tbody>
</table>

Dual Subject Marker -gV

The vowel of the dual subject number marker is realised as either i or u. It is always u when it occurs word finally (ie. in simple verbs where an auxiliary can stand alone without a verb root) and where the following syllable vowel is u. It is realised as i where the following syllable vowel is i, e or a. I would posit u as its underlying form on the basis of its word-final realisation, and allow for its realisation as i in terms of the following vowel harmony rule.

\[
\begin{align*}
/u/ & \rightarrow i /_CV[-\text{back}],[+\text{back}, -\text{high}] \\
& \rightarrow u /_CV[+\text{back}, +\text{high}] \\
& \phantom{u/} u /_# [\text{wordfinal}] 
\end{align*}
\]

The following examples demonstrate the realisations of -gV in these environments. Normal glossing practice is to write the auxiliary as a single unit, without using hyphens to show auxiliary-internal segmentation. In the following examples I have used a hyphen to mark off the dual subject number marker from the rest of the auxiliary unit, simply for clarity.

3-63

<table>
<thead>
<tr>
<th></th>
<th>yerr-wirimbi -frr wirrim -gu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tr</td>
<td>-whitegum-foot 3plSit - dl</td>
</tr>
<tr>
<td>cl</td>
<td>SU Pres SU</td>
</tr>
<tr>
<td>SU</td>
<td>They (dl) are sitting at the foot of the whitegum.</td>
</tr>
</tbody>
</table>
3-64 kuru ngerrminy -gu-bubu
water 1plexHands-dl -fetch water
SU perf SU
We (dlex) brought water.

3-65 kanbi -nuwurr ngerrmi -gi -baty -pe?
didjeridu-briefly 1plexHands-dl -hold -Fut
SU Irr SU
Can we (dlex) have your didjeridu for a little while?

3-66 wirrim -gi -fifi atyat
3plSit -dl -smoke outside
SU PresSU Eng loan
They (dl) are having a smoke outside.

3-67 warram -gi -pek
3plPokeDtr-dl -drip
SU Pres SU
They (dl) are painting up.

Suppletive dual subject number marking.

While the general observation that dual subject number is marked by
-gV in the final position within the auxiliary accounts for the vast majority
of dual subject auxiliary inflections, for four auxiliaries ('Sit, 'Go, 'Poke' and
'Slash') dual subject number is marked suppletively in the Past Imperfective
inflection by a change in vowel quality of the auxiliary root form. The 1st
person singular, 1st dual exclusive, and 1st plural exclusive Past
Imperfective forms of these four auxiliaries are given in 3-68 below.

3-68

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>dual</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sit</td>
<td>ngini</td>
<td>nginne</td>
<td>nginni</td>
</tr>
<tr>
<td>Go</td>
<td>ngagadi</td>
<td>ngadde</td>
<td>ngaddi</td>
</tr>
<tr>
<td>Poke</td>
<td>ngani</td>
<td>nganne</td>
<td>nganni</td>
</tr>
<tr>
<td>Slash</td>
<td>nguni</td>
<td>ngunne</td>
<td>ngunni</td>
</tr>
</tbody>
</table>

For 'Go' we additionally find this suppletive dual subject marking in the
Irrealis inflection.

3-69 Go ngani ngarrene ngarrani

'Go*' is completely anomalous in marking plural with -tyirri for the
Present and Perfective, and -yirri for the Irrealis, and it marks dual with
-girri. These forms are unattested elsewhere within the auxiliary paradigms.
A glance at the 1st person exclusive forms for all four inflectional categories,
set out in the example below, shows the Past Imperfective category to be
further anomalous in switching these suffixes, and having -yirri marking the dual, and -girri the plural.

<table>
<thead>
<tr>
<th>3-70</th>
<th>Present</th>
<th>Perfective</th>
<th>Past Imperf</th>
<th>Irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>ngerrimbin</td>
<td>ngerrim</td>
<td>ngerrini</td>
<td>ngirri</td>
</tr>
<tr>
<td>1dlex</td>
<td>ngarringgirri</td>
<td>ngarringgirri</td>
<td>nganneyirri</td>
<td>ngannigirri</td>
</tr>
<tr>
<td>1plex</td>
<td>ngarrintyirri</td>
<td>ngarrintyirri</td>
<td>ngannigerri</td>
<td>nganniyirri</td>
</tr>
</tbody>
</table>

3.2.2 Auxiliary Root

The verbal systems of Ngan'giwumirri and Ngan'gikurunggurr both employ 31 auxiliary roots. In terms of their number, and apparently also their semantics, the two auxiliary systems appear to map perfectly onto each other. However there is a major, pervasive difference between them in terms of the number of tense/aspect/mood categories for which they subcategorise.

This section just deals briefly with the syllabic structure of auxiliary roots as a preliminary to the evidence for historical auxiliary tense suffixes that is presented in 3.4.2. The semantics of auxiliary roots, their transitivity, their distribution, and their co-occurrence with verb stems, are taken up in chapter four. The nature of auxiliary root inflection for categories of tense, aspect and mood is dealt with in 3.4.1.

Based on their Present and Perfective inflectional forms the 31 auxiliary roots can be divided into the three following syllabic types.

<table>
<thead>
<tr>
<th>3-71</th>
<th>Syllabic Structure</th>
<th>No. of auxiliaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N</td>
<td>2</td>
</tr>
<tr>
<td>CVN</td>
<td>CVN</td>
<td>18</td>
</tr>
<tr>
<td>CVCVN</td>
<td>CVCVN</td>
<td>11</td>
</tr>
</tbody>
</table>

Examples demonstrating each of these auxiliary structural types are set out in 3-72 to 3-74.

3-72 nge -n -du
1sg -Mouth -touch
SU Perf
I tasted it.

3-73 nge -riny -du
1sg -Hands -touch
SU Perf
I touched it.

3-74 ngu -dupun -du
1sg -Shove -touch
SU Perf
I tested it out/ had a feel of it.
3.2.3 Non-Subject Cross-referencing

3.2.3.1 Direct and Indirect Objects

In Ngan'gityemerri two types of non-subject argument are cross-referenced in the final slot of the auxiliary with bound pronominal suffixes. These categories of participant type are labelled 'Direct Object' and 'Indirect Object' (DO and IO in the example glosses). Before looking at the morphology of these two sets of pronouns, I comment on the nature of these categories of participant role.

Other than the minor use of IO forms in reflexive verbs (see 3.2.3.4), only higher animate participants are generally eligible for cross-referencing with DO and IO forms. On the animacy hierarchy humans, spirits and ancestral beings are placed high. On the other hand, insects, birds, mammals etc clearly hold a low position. Certain domesticated animals (dogs and horses for instance) can be variously viewed as higher or lower on the scale, perhaps not always qualifying for verbal cross-referencing, but clearly being eligible where they are addressed as second persons, included in the reference of first person forms, or within certain contexts play a sufficiently salient role within a discourse that they need to be referenced within the verb.

Indirect Object forms cross-reference higher animates that are: the implied locatives of intransitive motion verbs (3-76); the goals of speech act verbs (3-77); the targets of cognitive and perceptual verbs6 like 'forget' (3-78), 'remember', 'recognise', 'listen', 'hear'; and entities that are the less affected 'objects', beneficiaries or goals of transitive verbs (3-79).

Direct Object forms, on the other hand, cross-reference those non-controlling patient-like participants that are acted upon by a transitive agent, including the recipient of 'give' (3-80 to 3-83).

It is the semantic nature of Ngan'gityemerri verbs that determines whether they cross-reference participants with DO or IO forms. Although we can make the general observation that DOs are highly affected patients, and IOs are less affected targets and goals, participants in a given verb cannot be variously coded with either set of forms. That is, the difference between DO and IO marking does not constitute a grammatical device that can be manipulated to allow for different degrees of patient affectivity.

---

6Verbs of visual perception (like 'see') and emotion verbs like 'be jealous' that, through auxiliary selection, are viewed as being experienced through the visual senses, cross-reference their non-subject participants as Direct Objects.
Table 3-3 below gives the singular, dual and plural forms of the bound Direct and Indirect Object suffixes for Ngan'giwumirri and Ngan'gikurunggurr. As is evident from the table, 3rd singular is the only 'person/number' category that is specified for gender. Differences between the two dialects are only minor, and restricted to the 1sg IO (ngiti vs ngindi), the 2non-sg (dirr(ki) vs nirr(ki)), and the 3rd non-sg (wurr(ki) vs wirr(ki)).

<table>
<thead>
<tr>
<th>Ngan'gityemerri Bound Object Pronouns</th>
<th>Ngan'giwumirri</th>
<th>Ngan'gikurunggurr</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DO</td>
<td>IO</td>
</tr>
<tr>
<td>1</td>
<td>-ngi</td>
<td>-ngiti</td>
</tr>
<tr>
<td>Singular</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-nyi</td>
<td>-mbi</td>
</tr>
<tr>
<td>3m</td>
<td>-Ø</td>
<td>-ne</td>
</tr>
<tr>
<td>f</td>
<td>-Ø</td>
<td>-nge</td>
</tr>
<tr>
<td></td>
<td>1inc</td>
<td>-nin</td>
</tr>
<tr>
<td>Dual</td>
<td>1ex</td>
<td>-ngirrki</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-nirrki</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-wurrki</td>
</tr>
<tr>
<td></td>
<td>1inc</td>
<td>-nin-nime</td>
</tr>
<tr>
<td>Plural</td>
<td>1ex</td>
<td>-ngirr</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-nirr</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-wurr</td>
</tr>
</tbody>
</table>

Table 3-3

Two of the forms listed here have minor allomorphs. The 2sg IO suffix -mbi, as it appears following vowels, has an allomorph -bi following nasals. This is demonstrated in the examples below.

3-75 a) ngemen'ge-mbi
1sg Arrive -2sg
SU Irr IO
I'll come to you.

b) ngemen'gem-bi
1sg Arrive -2sg
SU Pres IO
I'm coming to you.
Note that in the above examples, this allomorphy results in the sacrifice of tense/mood marking. The auxiliary root in 3-75 a) achieves its Irrealis inflection by dropping its final nasal (cf. 3.4.2), but the 2sg IO allomorphy reinstates it, and as a consequence the present and irrealis inflected verbs both end up with the same surface form.

The other allomorphy is to be found in the 3rd non-sg forms, where the same environments, i.e. post-vocalic and post-nasal, produce variation between -wurr(ki) and -burr(ki) respectively. This is demonstrated nicely in 3-82 below.

The following Ngan'giwumirri examples 3-76 to 3-79 demonstrate the occurrence of indirect object pronouns in the auxiliary final position, and 3-80 to 3-83 demonstrate direct object pronouns.

3-76 yibe yemen'ge-ngiti
later 2sgArrive-1sg
SU Irr IO
Come to me later!

3-77 mamak ngiminy-nge
goodbye 1sgSay -3sgF
SU Perf IO
'Goodbye!' I said to her

3-78 minbe tyip -yumu -ngiti-tyeri
Neg dark-2sgSay -1sg -ear
SU Irr IO
Don't forget me!

3-79 miyi nyinnin warriny -ngirr -fi -derri-tyutyuk
food ANA 3plPoke -1plex-Mp-back -place
SU Perf IO redup
They laid out the food for us (pl).

3-80 minbe demim -nirrki-pi -yiri ?
Neg 3sgHands -2dl -head-numb
SU Pres DO
You two aren't feeling embarrassed, are you?
(lit: it's not numbing your (dl) heads, is it?)

3-81 deminy -ngirrki-dudu, e deminy -ngirrki-ba -walal
3sgHands-1dlex -touch and 3sgHands-1dl -arm-shake
SU Perf DO redup SU Perf DO redup
He woke us up and shook hands with us.

3-82 yawam -burrki-pe-yani, yudu -wurrki-mi -wul -pe kinyi
2sgTake-3dl -Fut-2sgGo 2sgShove-3dl -Val-return-Fut here
SU Irr DO SU Irr SU Irr DO
Bring these two (kids) with you, bring them back home here.
It is also apparent from Table 3-3 that there is currently complete neutralisation of the Direct Object and Indirect Object non-singular pronouns. Evidence from the Ngan'gimerri data collected by Gerhardt Laves in about 1930 suggests that the current paradigm results from the collapse of an earlier system where the contrast between Direct and Indirect Object bound pronouns was additionally made in the 1st exclusive, 2nd and 3rd person dual forms. From Laves' work we can reconstruct the following forms for Ngan'gimerri, a now extinct dialect of Ngan'gityemerri.

<table>
<thead>
<tr>
<th>Ngan'gimerri Bound Object Pronouns</th>
<th>DO</th>
<th>IO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singular</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-ngi</td>
<td>-ngiti</td>
</tr>
<tr>
<td>2</td>
<td>-nyi</td>
<td>-mbi</td>
</tr>
<tr>
<td>3m</td>
<td>-Ø</td>
<td>-ne</td>
</tr>
<tr>
<td>f</td>
<td>-Ø</td>
<td>-nge</td>
</tr>
<tr>
<td>1inc</td>
<td></td>
<td>-nin</td>
</tr>
<tr>
<td>1ex</td>
<td>-ninggi</td>
<td>-ngirrki</td>
</tr>
<tr>
<td>2</td>
<td>-ninggi</td>
<td>-nirrki</td>
</tr>
<tr>
<td>3</td>
<td>-wunggi</td>
<td>-wurrki</td>
</tr>
<tr>
<td><strong>Dual</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Plural</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1inc</td>
<td></td>
<td>-nin-nime</td>
</tr>
<tr>
<td>1ex</td>
<td>-ngirr</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-nirr</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>-wurr</td>
<td></td>
</tr>
</tbody>
</table>

Table 3-4

Hoddinott also collected some Ngan'giwumirri data, presumably in the early 1970's7, and the bound object pronouns provided in Hoddinott and Kofod (1989:103), concur with Laves' Ngan'gimerri data in showing the same distinction between dual Direct and Indirect Object pronouns. The complete absence of distinct dual DO and IO pronouns in the speech of the Ngan'giwumirri people that I worked with between 1986 and 1988, suggests that this distinction has only been lost in very recent years. I never heard

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7According to Kofod he collected Ngan'gikurunggurr material during four fieldtrips, in 1967, 1972, 1973 and 1982. His Ngan'giwumirri data was presumably also collected on one or more of these trips.
the dual direct object forms (given by Laves and Hoddinott & Kofod) spontaneously uttered.

In conclusion I would suggest that there has been a general process of neutralisation of the non-singular bound Direct and Indirect Object pronominal paradigms. As the data of Laves and Hoddinott & Kofod suggest that there was in recent times a contrast between DO and IO in both the singular and dual number categories, we could hypothesize that at an even earlier stage the contrast may have also been found in the plural forms. The hypothetical neutralisation of the plural pronouns would have predated Laves' 1930 work, and the neutralisation of the dual forms would appear to have taken place over the last few decades. Note that this neutralisation has involved the loss of the Direct Object forms, and that it is the Indirect Object forms that have been retained.

3.2.3.2 Dual Subject/Object Portmanteau Pronominals.

In 3.2.3.1 above we have seen how object suffixes fill the final auxiliary position immediately following the auxiliary root. In section 3.2.1.2.2 we saw that subject duality is encoded primarily by the suffix -gV, also in this same position. That is, both morpheme types compete for access to the same verbal slot.

The dual subject marker -gV can only appear when this position is otherwise empty of overt object morphology. This condition is met where either a verb is intransitive and has no object argument, as in 3-84 a), or is transitive but has a 3rd sg direct object, which is cross-referenced by - Ø, as in 3-84 b).

3-84 a) werrmen'geny-gu
   3plArrive  -dl
   SU Perf   SU
They (dl) have arrived.

b) warriny- Ø /gu -pawal
   3plPoke   -3sg/dl - spear
   SU Perf   DO/SU
They (dl) speared him.

Where this condition is not met, and the dual subject marker competes with overt object markers for access to the final auxiliary slot, Ngan'giwumirri and Ngan'gikurunggurr employ a set of portmanteau morphemes that encode both subject duality, and the person and number of singular Direct and Indirect objects. These portmanteau forms are listed in
Table 3-5 below. The only difference between the two languages is in the form of the dl sub+1sg IO. The NgK form is given in brackets.

Dual Subject + Singular Object Portmanteau Bound Pronouns

<table>
<thead>
<tr>
<th></th>
<th>DO</th>
<th>IO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-ngerr</td>
<td>-ngeterr(ngindirr NgK)</td>
</tr>
<tr>
<td>2</td>
<td>-nyerr</td>
<td>-mberr</td>
</tr>
<tr>
<td>3m</td>
<td></td>
<td>-nerr</td>
</tr>
<tr>
<td>f</td>
<td></td>
<td>-ngerr</td>
</tr>
</tbody>
</table>

Table 3-5

Examples exploiting these portmanteau bound pronouns are set out below. Compare 3-85 and 3-86 with 3-84 a) and b) above.

3-85  werrmen'geny-ngeterr 3-86  warriny-nyerr -pawal
3plArrive -dl/1sg          3plPoke-dl/2sg-spear
SU Perf SU/IO                SU Perf SU/DO
They (dl) came to me.        They (dl) speared you (sg).

3-87  ngamban -nime -tyutytyurr ba! ngirrmny-nerr
1plincGo- pl - swim HORT 1plSay -dl/3sgM
SU Irr SU redup              SU Perf SU/IO
'Come on, let's go swimming!' we (dl) said to him.

3-88  winy -wirrmny-ngeterr
whistle-3plSay -dl/1sg
SU Perf SU/IO
They (dl) whistled at me.

Where Direct and Indirect Objects are plural (and recall that, cf. 3.2.3.1, their formal marking is neutralised here), dual subject number marking is sacrificed to the cross-referencing of the object. Thus, as in 3-89 below, in verbs with dual subjects acting on non-singular objects, the subject can be marked for plural number in the slot preceding the auxiliary root, but number categories that are higher than plural on the markedness hierarchy, cannot be overtly represented.

3-89  warriny -ngirr-tyerr -pu, nyinyi tyagani derrigidi-yrerm
3plPoke -1plex-mouth-ask 2sg what want -2sgHands
SU Perf DO PRO              SU Perf
They (dl or pl)(airline hostesses) asked each of us (pl), 'What would you like (to drink)'

In section 3.2.1.2.2 we saw that four auxiliaries marked subject duality, not by -gV in the final auxiliary position, but suppletively by a change in the
quality of the vowel of the auxiliary root. For these few auxiliaries there is no competition between dual subject marking and non-singular object marking for access to the post-auxiliary root position. So verbs selecting these auxiliaries can encode both their subject duality and the person and number of their object.

3-90 ngarrene-nyi-mi -wap-pe kinyi

IdlexGo -2sg-Val-sit -Fut here
SU Irr DO
We (dl) will come up here and sit with you.

3-91 wanne -ngirr-fi -mi -tyatit-tye agatyintyi-ne

3dlPoke -1plex-Mp-Val-place-Past fishing -PURP
SU Plmp DO redup
They (dl) were showing us (plex) how to prepare fishing tackle.

3.2.3.3 -Nime as Non-Subject Marker

We have seen how -nime in the post-verb root position marks both the subject number categories '1st inclusive plural' (cf. 3.2.1.2.1) and '1st exclusive, 2nd and 3rd person trial' (cf. 3.2.1.2.2). -Nime additionally marks these same categories for bound object pronouns, as in the examples below.

3-92 nga -wurrki-tyerr -pu-nime-pe

1sgPoke- 3dl -mouth-ask- tr -Fut
SU Irr DO DO
I'll ask them three.

3-93 gagu money-ne yedi -nin -kayki-nime-tye

animal -PURP 3sgGo -1dlinc-call -pl -Past
generic SU Plmp IO IO
He was calling out to us all for money.

Having -nime marking number categories for both subject and object would appear to be potentially very confusing, and begs the question - 'what happens when you get, for example, a 1st person plural inclusive subject acting on a 3rd person trial object, or vice versa?'. Consider the following example where -nime could denote either 'plural subject' or 'trial object'.

3-94 ngandim-wurrki-fi -me -nime gagu

1dlPoke - 3dl -Mp-hand-pl/tr animal
SU Perf DO SU/DO generic
1- We (dlinc) gave them (trial) some beef.
2- We (plinc) gave them (dual) some beef.
Devoid of context, this example is, admittedly, quite ambiguous. A Ngan'gwumirri or Ngan'gikurunggurr speaker, if offered this example, would probably try to disambiguate it by including numerically specific freeform NPs. However, in the context of normal speech, this double function of -nime presents no referential problems, for two reasons. Firstly, given the high semantic markedness of both the 'exclusive trial person' category, and the '1st inclusive plural' category, their co-occurrence as subject and object of the same verb is extremely rare. Secondly, recall the comments made in 3.2.1.2.2 about the tendency to employ plural subject marking on verbs with trial subjects, unless the subjects' 'threesomeness' has sufficient pragmatic salience to warrant its specific morphological marking. As a corollary to this, trial subjects are typically introduced to a discourse carrying full trial marking in their bound verbal morphology, but once reference to their 'threesomeness' has been established, they continue to be tracked by plural forms, in preference to the more highly marked trial ones. Thus the cross-referencing of two highly marked arguments as the subject and object of a single verb is generally avoided.

3-95 *wadde -nime-tye nyinnin tyutytyurr-ne* **winni-tyutytyurr-tye**

3dlGo -tr -Past ANA swim -PURP 3plSit -swim -Past
SU ImpSU
The three of them went there and they (plural) swam about.

3.2.3.4 Reflexives and Reciprocals

The primary means by which the reflexive and reciprocal functions are encoded within the Ngan'gityemerri verb is through a mechanism of auxiliary substitution. A 'transitive' auxiliary (cf. 4.2) is replaced by a corresponding 'detransitivised' auxiliary. The resultant verb retains a verb stem denoting a 'transitive' activity, but is made monovalent through the selection of the 'detransitivised' auxiliary. It is in having both the actor and undergoer roles mapped onto the single argument of the verb, that leads to the reflexive/reciprocal interpretation. Compare the 'transitive' 'Hands' auxiliary in 3-96 with the substitution of the corresponding detransitivised 'HandsDtr' auxiliary in 3-97.

3-96 **ngeriny -Ø-pul**

1sgHands-3sg-wash
SU Perf DO
I washed him/her/it.
I washed myself.

The semantics of 'detransitivised' auxiliaries, and the consequences of their selection in marking reflexivity and reciprocality, are taken up in more detail in 4.5.2.

Note though that reflexives and reciprocals can additionally be more explicitly encoded with indirect object pronominal forms in the final position of the auxiliary. In this function they differ from the other 'goal-like' functions of the Indirect Objects in that they encode the reflexive/reciprocal relationship for both higher and lower animates. That is, the animacy restrictions that determine the eligibility of goal arguments for cross-referencing within the verb (cf. 3.2.3.1), do not apply to reciprocals and reflexives. Thus the lower animate subject of the reflexive verb formed with the 'detransitivised' 'Poke' auxiliary in 3-98 takes Indirect Object pronoun -ne.

3-98 e-fenggu darany -ne -fi -dudu
A-long 3sgPokeDtr-3sgM-Mp-coil
cl =snake SU Perf IO
The snake coiled itself up.

The 3rd singular masculine indirect object form is the unmarked reflexive for lower animates, as in 3-98 regardless of their number. Feminine indirect object forms are also available, though as demonstrated in 3-99, their selection constitutes a marked claim about the gender of the lower animate(s).

3-99 wuwu diwen -nge -fIRR-lak
dog 3sgMouthDtr-3sgF-foot-lick
SU Pres IO
The bitch is licking herself on the foot.

Given that these verbs are monovalent, and that the person and number of the single argument is unambiguously encoded in the bound subject marker, the occurrence of indirect object pronouns in the final position of the auxiliary in reflexive/reciprocal verbs is essentially redundant. It generally carries no new information (although note that -nge in 3-99 does include gender information whereas the subject pronoun does not), and can be included or omitted with no significant difference to the meaning of the verb. The inclusion of bound indirect object pronouns in
detransitivised auxiliaries, may be largely governed by practical considerations, such as distinguishing between those 'transitive' and 'detransitivised' auxiliaries that are similar in form, like 'Bash' and 'BashDtr' in 3-100 and 3-101, which are distinguished only by the quality of the auxiliary root vowel. Within the context of the harmonic processes that regressively influence vowel quality in the verb complex (cf. 2.4.4.2), the inclusion of the indirect object pronoun in 3-101 does serve to draw attention to the 'detransitivised' (and therefore reciprocal) status of the auxiliary.

3-100 ngerrben-Ø-lulu 3-101 ngerrbin -ngirr-lulu
1plexBash-3sg-swear 1plexBashDtr-1plex-swear
SU Perf DO SU Perf IO
We swore at him. We swore at each other.

3.2.3.5 Implicated Arguments

In addition to Direct and Indirect Objects, there is another set of bound pronominals that can be marked within the verb, not, as is the case for DOs and IOs, within the auxiliary, but following the CVS and non-singular marker -nimé, and preceding the final tense enclitics. These pronominals are labelled 'implicated' and are glossed in the examples as IMPL.

Ngan'gityemerri Implicated Pronominals

<table>
<thead>
<tr>
<th></th>
<th>Ngan'giwumirri</th>
<th>Ngan'gikurunggurr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-ngidde</td>
<td>-nginde</td>
</tr>
<tr>
<td>Sg</td>
<td>-kide</td>
<td>-kide</td>
</tr>
<tr>
<td>3m</td>
<td>-nide</td>
<td>-nide</td>
</tr>
<tr>
<td>3f</td>
<td>-ngide</td>
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</tr>
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<td>1inc</td>
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<td>-wirrkide</td>
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<td>-ngirrse</td>
</tr>
<tr>
<td>Pl</td>
<td>-nidde</td>
<td>-dirrse</td>
</tr>
<tr>
<td>3</td>
<td>-wudde</td>
<td>-wirrse</td>
</tr>
</tbody>
</table>

Table 3-6
As can be seen from Table 3-6, the implicated pronouns can be segmented into person/number morphemes and a role marker -de. The person/number stems generally resemble the IO bound pronominals given in Table 3-3. In fact the non-singular person/number morphemes are identical with IO forms. The differences between the Ngan'giwumirri and Ngan'gikurunggurr implicated pronouns can be seen to mirror the differences found in their respective IO pronominal paradigms. For instance, in the 2nd person non-singular forms we find the same variation between initial d- in Ngan'gikurunggurr and initial n- in Ngan'giwumirri, and in the 3rd person non-singular forms we find the same variation between the vowel -i- in Ngan'gikurunggurr and -u- in Ngan'giwumirri.

The differing treatments in Ngan'giwumirri and Ngan'gikurunggurr of the underlying rr + d cluster at the boundary between the person/number morpheme and -de have been covered in 3.2.1.2.2. Briefly, in Ngan'giwumirri application of the apical assimilation rule (cf. 2.4.) produces a geminate stop cluster, (e.g. -ngirrde → -ngidde). However the underlying rr#d cluster in Ngan'gikurunggurr undergoes frication of the apical obstruent, (e.g. -ngirrde → -ngirrse).

Among the singular implicated forms, the appearance of k- as a marker of second person is encountered nowhere else in Ngan'gityemerri, and the third person masculine and feminine forms have a different vowel to their corresponding IO forms (-ni-de / -ngi-de vs -ne / -nge).

The implicated pronouns allow for the verbal cross-referencing of an entity that is adversely affected by the activity of a verb. The animacy constraints on eligibility for cross-referencing within the verb, noted for DOs and IOs in 3.2.3.1, also apply here. We can distinguish two usages of the implicated pronominals. Firstly, in their general function they cross-reference entities that are adversely affected by the activity of intransitive (including detransitivised) verbs.

3-102 peke kinyi yenim-me -syirr -ngidde
   tobacco this 3sgGo -hand-extinguish-1sg
   SU Pres IMPL
   This tobacco's always going out on me.

3-103 naga ngayi dagam -felfil -nginde
   NgK husband 1sg 3sgFeet-run -1sg
   PRO SU Pres away IMPL
   My husband has run out on me.
The only constraint is that the implicated entity cannot be co-referential with the intransitive subject. Thus the cross-referencing of first singular person with implicated pronouns in 3-104 is unacceptable.

3-104 palak-ngumum (*-ngidde)
  tired 1sgDo 1sg
  SU Pres IMPL
I'm tired.

General adversative marking is restricted to intransitive verbs. Thus adversely affected entities cannot be cross-referenced in transitive verbs, regardless of whether they may be coreferential with the DO, as in 3-105, or constitute a non-core argument, as in 3-106.

3-105 warriny-ngi-pawal (*-ngidde)
  3plPoke-1sg-spear 1sg
  SU Perf DO IMPL
They speared me (*on me) (i.e.adversely affecting me).

3-106 warriny-nyi-pawal (*-ngidde)
  3plPoke-2sg-spear 1sg
  SU Perf DO IMPL
They speared you (*on me) (i.e.adversely affecting me).

Note however, that for those intransitive verbs that allow the cross-referencing of goals or targets with IO pronouns (like the verbs of cognition and perception noted in 3.2.3.1), the alternative of cross-referencing those goals or targets with implicated pronominals is an available option.

3-107 a) yerrimbin-tyety -wudde
  3sgGo* -afraid-3pl
  SU Pres IMPL
He's afraid of them.

or b) yerrimbin-wurr-tyety
  3sgGo* -3pl -afraid
  SU Pres IO
He's afraid of them.

The construction type whereby implicated entities are cross-referenced within the verb can be paraphrased by having the implicated entity marked with free pronouns outside of the verbal complex. Thus 3-102 above could be reworded as:
Note though that there is no form of case marking available to external implicated pronouns, corresponding to the implicated role morpheme -de discussed above.

The examples below demonstrate the cross-referencing in the post verb root position of entities adversely affected by the activity of intransitive verbs, in 3-109 and 3-110, and a detransitivised verb in 3-111.

3-109 yeniny -pal -ngidde, minbe-nyine-tye ngi -wurr-tyerrakul
3sgGo-break-1sg Neg -FOC -Past 1sgSit-3pl -talk
SU Perf IMPL SU Irr IO
(The radio) broke down on me, so I was unable to talk to them then.

3-110 yenim -purity-wirrkide
3sgGo-hide -3dl
SU Pres IMPL
He's in hiding from them two.

3-111 ngambara -mentyi-gerrirr-nide -pe, wamanggal nyin
1plincPokeDtr-neck -cut -3sgM-Fut wallaby ANA
SU Irr redup IMPL
Let's circle around on it, so that wallaby will
ngarrnguweri-nyine wiri -pe, nyinyi werrfe-ninggi,
be between -FOC 3sgSit-Fut 2sg mid -INSTR
SU Irr PRO distant
be between us. You (go) that way, and
ngayi kin-ninggi ngana-gulirr-pe
1sg this-INSTR 1sgFeet-circle-Fut
PRO SU Irr
I'll go around this way.

The second identifiable function of implicated pronominals is to mark those entities whose bodyparts are adversely affected in the activity expressed in transitive verbs. In examples like 3-112 and 3-113 below where bodyparts are acted upon by external agents, the bodyparts function as direct objects (cross-referenced by Ø) and their bodypart possessors are cross-referenced with implicated pronouns.
3-112 *wusye deminy -Ø-firr\(^8\)-tit -ngidde*

*SU Perf DO IMPL*

*She plucked out a hair from my head on me.*

3-113 *marrawuk-ninggi wumbun-Ø-matati-kide detyerr nyinyi*

*dry season-AGENT 3sgSlash -3sg -split -2sg mouth 2sg wind SU Perf DO IMPL PRO*

*The dry season wind has split your lip on you.*

The effect of 'implicated' coding here is to construe the bodypart, rather than its possessor, as the undergoer, thereby decreasing the degree to which the possessor as a whole is felt to be affected.

This implicated construction type clearly treats the relationship between a person and their inalienable bodyparts in a different manner to the 'possessor ascension' construction discussed in section 3.5 on bodypart incorporation. There we saw that inalienably possessed bodyparts as objects of transitive verbs are generally incorporated within the verb where they function in apposition to their possessor which is obligatorily cross-referenced as direct object.

3-114 *menggin -ngi-ba -wa*

*3sgSnatch-1sg-arm-pick SU Perf DO up*

*She picked me up by the arm.*

In 3-114 the whole is perceived to be affected by the action and the incorporated bodypart simply provides additional information about the location, within the possessor's body, of that contact. Contrastively, cross-referencing the possessor as an implicated argument, as in examples 3-112 and 3-113 above, has the effect of lessening the degree to which the possessor can be thought of as wholly affected by the activity directed towards a part of it. Indeed, the innate relationship between a whole and an inalienable bodypart is sufficiently disengaged by having the whole construed as an implicated argument, that this construction type allows a bodypart, as an intransitive subject, to engage in activity that adversely affects the 'implicated' possessor, e.g.

\(^8\)firr - 'foot' is a lexical rather than syntactic incorporation (cf. 3.5.2). - firr-tit is thus a lexically compounded verb root meaning 'to pluck something up by its base', in this case denoting that the hair was removed from the follicle, not broken somewhere along its length. The construction type discussed here, where a bodypart is treated as a separate entity to its possessor, is not permissive of syntactic incorporation of that bodypart into the verbal complex.
3-115 depi yenim-purity-ngidde
   head 3sgGo -hide -1sg
   SU Pres MPL
My mind has slipped away on me.
(lit: My head is hiding on me)

3-116 ngayi watyerrmusye ngaganim, minde-nana ngal -ning -nguri,
   NgK 1sg old man 1sgGo Neg -INAB erect-1sgDo-penis
   PRO SU Pres SU Pres
I'm an old man, I can't get it up any more.
   danguri-ngai misyi yenim-nginde wakay
   penis -1sg die 3sgGo -1sg finished
   PRO SU Pres IMPL
My cock's died on me.

3-117 akumifi daram -fi -dudu-ngidde
   tendon 3sgPokeDtr-Mp-curl -1sg
   SU Pres IMPL
My tendons are cramping on me.

3-118 kultyinimbi depi ngayi nyinyi-ne demeni -meyenggi-ngidde-tye
   yesterday head 1sg 2sg -PURP 3sgHandsDtr-talk -1sg -Past
   PRO PRO SU PImp IMPL
Yesterday I was thinking about you.
(lit: My head was talking to itself about you, on me.)

3.3 Structure of the Complex Verb Stem

In 3.1.1 we noted that there are two types of auxiliary. Those which
can stand as independent verbs, we called 'simple auxiliaries', and those
which cannot stand as independent verbs we called 'complex auxiliaries'.
'Complex auxiliaries' are dependent on another verbal constituent, the
Complex Verb Stem, and it is the structure of this constituent that we will
examine in this section.

Minimally, and indeed probably most frequently, a CVS may be
represented by a simple verb root, such as -wap 'sit' in the following
example.

3-119 ngaganiny-wap
   1sg Go -sit
   SU Perf
I sat down.
Additionally, within the CVS and preceding the verb root, we find two types of applicative prefix, divisive prefixes, and incorporated bodyparts. The applicative prefix fi- encodes 'manipulation'.

3-120 ngariny-nyi-fi-wap
1sgPoke-2sg-Mp-sit
SU Perf DO
I left you sitting / I sat you (somewhere).

The applicative prefix mi- raises the valence of the verb root's associated argument structure.

3-121 ngaganiny-nyi-mi-wap
1sg Go -2sg-Val-sit
SU Perf DO
I sat down with you.

The divisive prefixes provide information about the spatial divisions of objects, e.g. gen- 'middle'.

3-122 ngebra-nyi-gen-ket
1sg Bash-mid-cut
SU Perf
I chopped it in half/two.

And bodypart terms can also be incorporated into the verb.

3-123 mudiga ngaganiny-madi-wap
car 1sg Go -chest-sit
SU Perf
I sat inside the car.

The incorporation of bodypart terms into the verb is taken up and discussed as a separate section in 3.5. Each one of the remaining CVS constituents is examined in the following subsections.

3.3.1 Applicative Prefixes Fi- and Mi-

In Ngan'gityemerri there are two applicative prefixes fi- and mi- that can be applied to verb roots. Of these two prefixes, mi- is clearly related to the 'eye' bodypart which has the freeform da-muy. When it is incorporated within the verb da-muy drops the class prefix and the root muy is irregularly reduced to mi. That the applicative prefix is related to this bodypart can be clearly demonstrated by showing that it too resumes the
form \textit{muy} when it is not prefixed to the verb root. Within the current verbal structure of Ngan'giwumirri with its fixed constituent ordering, this situation cannot arise. However in the Ngan'gimerri data of Gerhardt Laves, where verb roots frequently precede the auxiliary, we find the applicative prefix \textit{mi} appearing word-finally, in which position it resumes the form \textit{muy}. Compare both the variant orderings given by Laves in examples a) and b) below, with the same verb in 3-121 above.

3-124 a) \begin{verbatim}
yenim-mi-wab\textsuperscript{9}
3sgGo-Val-sit
SU Pres
He sits with him.
\end{verbatim}

b) \begin{verbatim}
wab yenim-muy
sit 3sgGo-Val
SU Pres
He sits with him.
\end{verbatim}

\textit{-Fi-}, on the other hand, is not demonstrably related to any freeform bodypart lexeme. If we were to assume that applicative \textit{-fi} is derived from some other form, there are three candidates to be considered. \textit{Fi} does occur both as a freeform nominal meaning 'string/spun twine', and as a verb root meaning 'breathe/exhale', however neither of these seem a likely source. A better candidate would be \textit{-pi} - 'head', as it would both pattern with \textit{-mi-} in developing its applicative function as a further development of its incorporation within the verb as a bodypart, and the semantics of \textit{-pi-} might perhaps be compatible with the notion of 'manipulation' that is conveyed by applicative \textit{-fi-}. There are however no obvious environmental or other factors that would motivate a shift from \textit{p} \rightarrow \textit{f}, unless we were to consider the hypothesis that the development of applicative \textit{-fi-} from the incorporated bodypart \textit{-pi-} predated the probably recent development of phonemic fricatives within the phonological system of Ngan'gityemirri. I conclude that if applicative \textit{-fi-} had its source in a cognate form in another word class, then the class of bodypart terms would be the most likely candidate, noting though that the relationship is no longer transparent.

3.3.1.1 \textit{-Fi-} Manipulation

\textit{-Fi-} is applied to verb roots in verbs that can be thought of as involving, not merely an agent operating on an object, but more specifically \textit{manipulating} that object from a position of control.

\textsuperscript{9} Retaining Laves spelling.
In verbs having inanimate objects, the sense of manipulation brought to the verb by the application of -fi-, is directly with regard to the physical location/shape of that object. This is apparent in 3-125 below, where in a) and b) it is the location of the object that is manipulated, and in c) and d) where it is the spatial arrangement.

3-125 a) **ngariny -fi -garri-tyat yawurr**
   1sgPoke -Mp-leg -place tree
   SU Perf
   I placed it against the trunk of the tree.

   b) **ngariny -fi -madi-tyuk entpek**
   1sgPoke-Mp-chest-place suitcase
   SU Perf  (Eng: handbag)
   I placed them inside my suitcase.

   c) **ngariny -fi -dudu fi**
   1sgPoke -Mp-swell string
   SU Perf
   I coiled the string up.

   d) **ngariny -fi -tyerr -pek yawul**
   1sgPoke-Mp-mouth-drip spear
   SU Perf
   I rejoined the (broken) spear shaft.

In verbs having human objects, the sense of manipulation and control of the object that the application of -fi- encodes is not so much in terms of the physical location of the object (though this interpretation is frequently also allowed), but rather in terms of the human object being under the psychological, or authoritative control of the agent.

3-126 a) **wuni -yirre ngariny-∅ -fi -wap**
   there-CORRECT 1sgPoke-3sg-Mp-sit
   SU Perf DO
   I left her sitting back there.

   b) **dangim -ngi -fi -mi -lit**
   3sgPoke-1sg-Mp-Val-cover
   SU Pres DO
   He’s blocking the view from me.

   c) **dam -ngi-fi -derri-sul**
   3sgPoke-1sg-Mp-back-arise
   SU Pres DO
   He kept me awake all night.
The encoding of an object as being under the physical or psychological control of an agent need not always bear the malevolent connotation that the above examples may suggest, though this is frequently the case. In the example below, the 'controlled' status of the object results from the context in which he is receiving direction or instruction, and is not imbued with any sense of menace or malevolence.

3-127 dangim -ngi-fi -mi -tyatit Ngan'giwumirri-ne
3sgPoke-1sg-Mp-Val-place -PURP
SU Pres- DO redup
He's teaching me to speak Ngan'giwumirri.

Two verbs selecting the 'Mouth' auxiliary (associated with activity at the mouth generally, and speech particularly) select -fi-, and both entail the manipulation and control of an object argument by means of oral direction. In 3-128 below, the application of -fi- to the verb root -gulgul -'stir' (as one would stir sugar into tea) and combining it with 'Mouth' produces a verb meaning 'to manipulatively stir someone up through speech/to incite someone to do something they wouldn't otherwise do'. In 3-129 the application of -fi- to the verb root -ket, and its combination with 'Mouth' produces a verb meaning 'to deceive someone through speech/to lie to someone'.

3-128 ngem -ne-fi -gulgul-nimbi, danginy-nyi-nguru-waty
1sgMouth-3sg-Mp-stir -CAUS 3sgPoke-2sg -penis -consume
SU Perf IO SU Perf DO
He only fucked you because I incited him to do it.

3-129 dendi dingim -bi -fi -ket
lie 3sgMouth-2sg-Mp-cut
SU Perf IO
He lied to you.

Detransitivised auxiliaries (cf. 4.5.2) involve the manipulation by a subject of parts or the whole of his own body. They combine with verb roots that denote 'transitive-like' activities in that they treat a bodypart as an object, e.g.

3-130 ngudeny -garri-fityi
1sgShoveDtrD-leg -roll
SU Perf
I crossed my legs.
However, in terms of formal criteria (cf. 4.2) verbs formed with 'detransitivised' auxiliaries are intransitive, being unable to cross-reference an O within the verb. Each of the 'detransitivised' auxiliaries can be thought of as the 'inherently reflexive' equivalent of another 'transitive' auxiliary. This is demonstrated below where 3-131 a) is a transitive verb formed with the 'Poke' auxiliary and 3-131 b) is an intransitive verb formed with the 'PokeDtr' auxiliary.

3-131 a) ngariny -Ø -pek
1sgPoke-3sg-drip
SU Perf DO
I painted dots on it/him.

3-131 b) ngarany -pek
1sgPokeDtr-paint
SU Perf
I painted dots on myself

A large proportion of the verbs selecting detransitivised auxiliaries, because they entail manipulation of the shape or location of the bodypart object, combine these auxiliaries with -fi- applied verb roots. The a) and b) pairs in the examples below demonstrate both transitive and corresponding detransitivised auxiliaries, in combination with the same -fi- applied verb roots.

3-132 a) ngariny -fi -tit mudiga
1sgPoke-Mp-raise car
SU Perf
I raised (jacked up) the car.

3-132 b) ngarany -fi -tit
1sgPokeDtr-Mp-raise
SU Perf
I raised myself/ I got up.

3-133 a) fi ngariny -fi -dudu
twine 1sgPoke-Mp-swell
SU Perf
I coiled up the rope.

3-133 b) ngarany -fi -dudu
1sgPokeDtr-Mp-swell
SU Perf
I curled myself up (into foetal position).

3-134 a) ngariny -fi -garri-tyat
1sgPoke-Mp-leg -place
SU Perf
I placed it against the tree trunk.

3-134 b) ngarany -fi -gimi-tyat keninggisyi
1sgPokeDtr-Mp-side -place canoe
SU Perf
I placed/positioned myself on the side of the boat.
3.3.1.2 -Mi- Valency Increasing

Verb roots, in Ngan'gityemerri, bear an associated argument structure; that is, verb roots are either monovalent or bivalent (see 4.2.2). -Mi- is applied to verb roots to allow the introduction of a new object argument to the base verb. -Mi- can therefore be said to derive a new verb root with a unit-augmented argument structure. This is exemplified in the examples below, where -wap and -tyerr, verb roots with monovalent argument structures in a), are prefixed with -mi- in b) to allow for the promotion of thematic comitative arguments to core direct objects, qualifying for cross-referencing within the verb.

3-135 a) ngaganiny - wap
1sg Go -sit
SU Perf
I sat down.

b) ngaganiny-nyi-mi-wap
1sg Go -2sg-Val -sit
SU Perf DO
I sat down with you.

3-136 a) yeniny -tyerr
3sg Go - stop
SU Perf
He pulled up/ came to a halt.

b) yeniny -ngi-mi -tyerr
3sg Go -1sg-Val -stop
SU Perf DO
He pulled up at me/ alongside me.

All -mi- applied objects are cross-referenced within the verb as direct objects, regardless of their thematic role.

As might well be anticipated from its valence-raising function, -mi- is generally implicated in the derivation of transitive verbs from intransitive ones. Recall (cf. 4.2) that auxiliaries with different transitivity values can be combined with the same verb root. Where a transitive auxiliary combines with a verb root that has a monovalent argument structure, that verb root requires the application of -mi- to raise its valency and allow for the promotion of an applied object argument. This is evident in the pairs of verbs in the examples below. Examples a) are intransitive verbs with monovalent verb roots. In examples b), where the transitive
(causative) equivalents of a) are derived by the substitution of transitive auxiliaries, the verb roots are correspondingly made bivalent by -mi-prefixation.

3-137 a) ngiriny-di
1sgSit-cry
SU Perf
I cried.

b) ngum -nyi-mi-di
1sgSlash-2sg-Val-cry
SU Perf DO
I made you cry.

3-138 a) ngaganiny-fafa
1sgGo -scream
SU Perf
I screamed.

b) ngebeny -Ø -mi-fafa
1sgBash -3sg-Val-scream
SU Perf DO
I made her scream.

3-139 a) ngudeny-wul
NgK 1sgShoveDtrD -return
SU Perf
I returned.

b) ngudupuny-nyi-mi-wul
1sg Slash -2sg-Val-return
SU Perf DO
I took you back / I returned you.

3-140 a) ngirim-bubu
1sgSit -sleepy
SU Pres
I am sleepy.

b) ngeriny -nyi-mi-bubu
1sg Hands-2sg-Val-sleepy
SU Perf DO
I made you sleepy.
(by, for instance, rubbing your back with my hands).

Similarly -mi- can be applied to bivalent verb roots to augment their associated role structure and allow for the promotion of a third argument to direct object. Applied object arguments raised in this way, typically have the thematic role of maleficiary.
147

3-141 a) ngeriny -Ø-dum
   1sgHands-3sg-bury
   SU Perf DO
   I buried it

b) ngeriny -nyi-mi-dum
   1sgHands-2sg-Val-bury
   SU Perf DO
   I stole it from you.
   (lit: I buried it on you)

3-142 a) yenim -Ø-lit
   3sgGo -3sg-cover
   SU Pres DO
   He's blocking it/ covering it.

b) dangim -ngi-fi -mi-lit
   3sg Poke-1sg-Mp-Val-cover
   SU Pres DO
   He's covering it from me/He's blocking my view of it.

As applicative -mi- and incorporated bodyparts cannot co-occur as prefixes to the verb root, it is not always apparent which role -mi- is playing in a given verb. That is, there are verbs employing -mi- in which not only is an association with 'eye' quite plausible in semantic terms, but in which -mi- could also be analysed as an applicative prefix augmenting the valence of the verb root. Consider 3-143 and 3-144.

3-143 a) ngrim -bubu
   1sgSit -sleepy
   SU Pres
   I'm sleepy.

b) ngerim -mi-bubu
   1sgHands-Val-sleepy
   SU Pres
   I'm making him sleepy / I'm putting him to sleep.

3-144 a) ngeriny -mi-wat
   1sgHands-eye-hook
   SU Perf
   I hooked it up.

b) ngeriny -syi-wat
   1sgHands-nose-hook
   SU Perf
   I hooked it up.
In 3-143 b) -mi- could conceivably be an incorporated object bodypart, as an association with 'eye', in a verb meaning 'to put someone to sleep', would be quite plausible. However by comparison with the intransitive verb in 3-143 a) it is apparent that -mi- in 3-143 b) has been applied to the verb root -bubu to augment its associated monovalent argument structure, to make its compositional valency compatible with its lexical transitivity.

In 3-144 a) -mi- could conceivably be an applicative prefix augmenting the valency of the verb root -wat. We could determine this with certainty if, as in 3-143 above, we could contrast it with an intransitive verb employing the same verb root. No such verb in fact exists, however we can show that in this case -mi- is functioning as an incorporated bodypart patterning with -syi- 'nose' in 3-144 b). The verb in 3-144 means 'to hang up an object by passing some sort of hook through it'. The incorporation of -mi- in 3-144 a) focusses on the 'eye-like hole' through which the hook is inserted. The incorporation of -syi- in 3-144 b), on the other hand, focusses on the 'nose-like hook' that is inserted through the hole.

For non-native speakers this method of comparison can be employed to disambiguate the particular function of -mi- in potentially ambiguous instances. Needless to say, for native speakers who acquire an implicit feel for the associated argument structure of verb roots, such a test is needless. We should also consider the possibility that in verbs like 3-143 a) above, where an eye association is compatible with the verbal semantics, that -mi- encodes both grammatical and lexical meaning. Green (1989) notes in Marrithiyel that applicative prefixes clearly retain their bodypart semantics.

3.3.2 Divisive Prefixes
In addition to the major bodypart terms that are incorporated into the verb, there are three supplementary divisive prefixes filling slot 7 that are also incorporable. These prefixes convey spatial/divisional information about an argument of the predicate. The prefix -gen- broadly means the 'middle', or perhaps less specifically 'in two', as there seems to be no strong suggestion of division into equal parts. -Gen- prefixes a couple of verb roots, most frequently the verb root -ket 'cut', as in the following examples.

3-145 yawurr ngebeny-gen-ket
   tree       1sgBash-mid-cut
   SU Perf
   I chopped the tree in two.

3-146 wamangle ngupun-gen -ket
   wallaby    1sgSlash-mid-cut
   SU Perf
   I cut the wallaby in the middle /
   I gutted the wallaby.
The other two divisive prefixes, -gimi- and -ngirrmi-, both denoting 'the side', as opposed to the 'middle', have only been recorded in a single verb, as given in 3-147 below.

3-147 a) minbe yarra -fi -gimi-tyat -Ø yeninggisyi
NgK Neg 2plPokeDtr-Mp-side-place-IMP canoe
SU Irr
Don't all sit yourselves on the one side of the boat!

b) ngarani -fi -ngirrmi-tyat -tye
1sgPokeDtr-Mp-side -place-Past
SU Plmp
I had laid myself down on my side.

For the purpose of incorporation these divisive prefixes can be seen to behave much like the major bodyparts. This is apparent by comparing the incorporated divisives in examples 3-147 above, with the syntactically incorporated bodyparts in 3-148 below.

3-148 a) ngariny -fi -firr-tyat
1sgPoke-Mp-foot-place
SU Perf
I placed it at the foot (of the tree).

b) ngariny -fi -garri-tyat
1sgPoke-Mp-leg -place
SU Perf
I placed it against the trunk (leg of the tree).

However divisives can be distinguished from the major incorporable bodyparts in several important ways. Firstly, these divisive prefixes are not particular bodypart terms. They neither belong to the formal bodypart class, nor do they have any independent nominal status. Secondly, they can be shown to occupy a different verbal slot, preceding incorporated bodyparts. In the examples below -gen- precedes the incorporated bodypart -ge- 'belly', with which it would appear to be partially synonymous in that incorporated -ge-, conveying the notion of 'belly / guts', indirectly implies the 'middle' of a torso.

3-149 a) dudu -mem -gen -ge -nyine
swollen-3sgDo-mid-belly-FOC
SU Pres
He's got a fat belly now/He's thickened around the middle.

If it could be established that the -gimi in anggirrgimi - 'ribs' could be segmented off as an independent morpheme, then we may have some evidence of the occurrence of these divisive terms outside of the verb.
Thirdly, as their limited occurrence may suggest, divisives are lexically incorporated as elements of a verb root compound, and do not appear to be productive. In particular, they fail the main test for productive, syntactic incorporation, that of paraphrase as external nominals. Thus, example 3-150 below (based on 3-145 above) would be quite ungrammatical with the divisive morpheme extracted from within the verb.

3-150 *yawurr ngegeny-ket gen
tree lsgBash -cut mid
SUPerf
I chopped the tree in two

3.3.3 Verb Root Morphology
Ngan'giwumirri and Ngan'gikurunggurr employ about 160 verb roots that combine with 30 auxiliary roots in forming complex verbs. In addition to these 160-odd verb roots, there are probably another 50 derived verb roots. These include bodyparts functioning as verb roots, denominalised locative and associative verb roots, and adjectives. In this section I will examine each of these types of verb root, dealing firstly with the class of true verb roots.

I will begin by commenting on the phonotactics and reduplication of verb roots. As both these areas of concern are useful in defining verb roots as a wordclass, I will draw comparison with the phonotactics and reduplication of freeform nominals.

3.3.3.1 Verb Root Phonotactics
One criterion by which verb roots are distinguishable from nominals is in terms of their syllabic structure. Slightly more than half of the verb roots are monosyllabic (85/160), compared with only 15-odd monosyllables recorded in the entire nominal lexicon.

Additionally, the phonotactic constraints that apply to verb roots differ from those that apply to nominals. The initial consonant of a verb root patterns more like a C₄ than a C₁, (cf. 2.3.3). For instance, unlike free nominals, verb roots can have the apical fricative /s/ morpheme-initially.
However where nominals can be vowel-initial, verb roots cannot. The difference between the phonotactic possibilities for these two wordclass types would appear to stem from their capacity to occur word-initially. Unlike free nominals, verb roots in the contemporary Ngan'gityemerri verb structure are fixed in non-initial word position. Intriguingly, this was not always the case. The 1930 data of Gerhardt Laves clearly show that at a previous stage in Ngan'giwumirri, verb roots functioned as independent phonological words, and indeed often preceded the auxiliary verb. Laves' data include no examples of word-initial verb roots beginning with /s/, but then I have only recorded two. The scarcity of such examples is suggestive of their recent development, i.e. once verb roots were fixed within the post-auxiliary position, they may have expanded the phonotactic possibilities of their initial consonants from C₁ to the less restricted possibilities for C₄.

3.3.3.2 Verb Root Reduplication

In section 2.5.2.1 we noted that all nominals reduplicate in full, as in the following example.

3-152  

a) ngunngun - percussion flint  
b) marrimarrri - knife (NgK)  
c) nintyinintyi - bush / scrub  
d) a-melmel - cockatoo's crest  
e) wirrytywirrity - rainbow lorikeet

All Ngan'gityemerri reduplicated nominals are inherently reduplicated, not derived in any productive manner from single roots. They constitute two phonological words with respect to their stress marking, but a single morphological word in terms of their interaction with class markers and post-positions. This kind of disparity in word status is a
common feature of reduplicated nominals in non-Pama Nyungan languages (Ann Dineen: pers. comm.)

In contrast the morphology of verb root reduplication is quite complex. Monosyllabic verb roots reduplicate in full, as in 3-153.

3-153  a) -pu  →  -pupu  -  ask
       b) -we  →  -wewe  -  vomit
       c) -da  →  -dada  -  strike

We know that this reduplication is to the right, (i.e. the reduplicated form follows the stem), because the reduplicated syllable generally undergoes vowel change. The target vowel for the reduplicated syllable is the high front vowel, and all four phonemic vowels can be seen to select /i/ in their reduplicated forms. The three examples given in 3-153 are in this respect exceptional. However consider the reduplicated monosyllabic verb roots in 3-154 below.

3-154  a) -tip  →  -tiptip  -  grab
       b) -pek  →  -pefik  -  drip
       c) -baty  →  -batybity  -  hold
       d) -wuty  →  -wutyity  -  pour

This process is given as a 'tendency' rather than a firm rule because of the examples like those in 3-153 above, and also because where some monosyllables with back vowels /a/ and /u/ are reduplicated, the reduplicated vowel is sometimes raised without necessarily being fronted. Thus, in addition to their stated target of /i/, as in 3-154 above, /a/ and /u/ have both been found to reduplicate as /u/, as in the examples below.

3-155  a) -wa  →  -wawu  -  pick up
       b) -pap  →  -pappup  -  climb
       c) -bul  →  -bulbul  -  burn

We can therefore summarise the reduplication of monosyllabic verb roots by the following rule;

\[ C_1 V_1(C_3) \rightarrow C_1 V_1(C_3) C_1 V_2(C_3) \]

noting the general tendency for \( V_2 \) to be [+ high] and usually also [+ front].
As is evident from 3-154 b) and d) above, some of the $C_3 + C_1$ clusters that result from the reduplication of verb roots, are subject to certain morphophonological processes$^{11}$.

Di-syllabic verb roots with an initial closed syllable are very rare, but appear to reduplicate in full in the same way as nominals.

3-156 \[-\text{filkity} \rightarrow -\text{filkityfilkity} - \text{spin round}\]

However, di-syllabic verb roots with initial open syllables reduplicate the initial syllable only, i.e. they reduplicate partially and to the left.

3-157 a) \[-\text{kilik} \rightarrow -\text{kikilik} - \text{cough}\]
b) \[-\text{palak} \rightarrow -\text{papalak} - \text{wink}\]
c) \[-\text{kuduk} \rightarrow -\text{kukuduk}^{12} - \text{drink}\]
d) \[-\text{fala} \rightarrow -\text{fafala} - \text{show}\]
e) \[-\text{purity} \rightarrow -\text{pupurity} - \text{hide}\]
f) \[-\text{fityi} \rightarrow -\text{fiftyi} - \text{roll}\]
g) \[-\text{gulirr} \rightarrow -\text{gugulirr} - \text{encircle}\]

---

11These morphophonological processes are discussed in detail in 2.4, but three examples are given below.

1- w deletion
a) \[-\text{wap} \rightarrow -\text{wapup} - \text{sit}\]
b) \[-\text{wul} \rightarrow -\text{wulil} - \text{return}\]
c) \[-\text{winy} \rightarrow -\text{winyiny} - \text{whistle}\]
d) \[-\text{waty} \rightarrow -\text{watyity} - \text{consume}\]

2- rr assimilation
a) \[-\text{tyerr} \rightarrow -\text{tyetytyirr} - \text{stop}\]
b) \[-\text{tyurr} \rightarrow -\text{tyutytyurr} - \text{swim}\]

3- nasal assimilation (in NgK only)
NgK \[-\text{tum} \rightarrow -\text{tuntum} - \text{bury}\]
NgW \[-\text{dum} \rightarrow -\text{dumdum} - \text{bury}\]

---

$^{12}$Both -\text{palak} and -\text{kuduk} have been recorded once in their reduplicated form by a single, young speaker, as -\text{palakpalak} and -\text{kudukkuduk}. This is suggestive of reanalysis of the somewhat complex reduplication rules for di-syllabic verb roots, to the simpler rule whereby all roots, both nominal and verbal, reduplicate in full. I cannot comment here on whether this phenomenon may reflect a stage in either language acquisition or language death.
Verb root reduplication can therefore be summarised in the following way.

Monosyllables - Full Reduplication to the right
(target value of reduplicated vowel is [+high] / [+front])

Disyllables
  Initial Open - Partial left reduplication of $C_1V_1$-

Initial Closed - Full Reduplication

The aspectual consequences of verb root reduplication are discussed in 3.4.6.

3.3.3.3 Isolate Verb Roots

The closed class of verb roots is dependent on main verb morphology, that is, verb roots can generally only co-occur with auxiliary verbs in the formation of a complex verb. Under a single specific condition, a small subset of verb roots are found occurring in isolation, independent of an auxiliary verb. The construction that is permissive of independent verb roots is where they stand as imperatives. Isolated verb roots functioning as imperatives can be found in all the Daly region languages sharing this verbal typology. Cook (1984) also observes that imperatives are one of only two construction types in Wagiman that allow 'participles'\(^{13}\) to appear in isolation from 'finite verbs'.

Only six verb roots have been recorded functioning as isolated imperatives, though this list is certain not to be exhaustive. The verb roots that are used in this way are all semantically transparent, in the sense that in their combination with various auxiliaries, an invariant core semantic component is always attributable to them. We would not, for instance, anticipate the use of a highly polysemous verb root, such as -baty, as an isolated imperative.

\(^{13}\)Given certain typological differences between the two languages, these terms of Cook’s are the broad equivalents of 'verb roots' and 'auxiliary verbs', respectively. Cook eschews the labels of 'verb root' and 'auxiliary' in Wagiman on the grounds that the former not only occur in isolation as imperatives, but can also be case marked in clausal complement constructions, and the latter because it is suggestive of the lexically empty Warlpiri-type 'auxiliary' that cannot stand as a finite verb by itself.
<table>
<thead>
<tr>
<th>3-158</th>
<th>verb</th>
<th>imperative form</th>
</tr>
</thead>
<tbody>
<tr>
<td>wap</td>
<td>-</td>
<td>sit !</td>
</tr>
<tr>
<td>karrbu</td>
<td>-</td>
<td>get down !</td>
</tr>
<tr>
<td>pat</td>
<td>-</td>
<td>get up ! (from lying)</td>
</tr>
<tr>
<td>puy</td>
<td>-</td>
<td>keep going !</td>
</tr>
<tr>
<td>tyerr</td>
<td>-</td>
<td>stop !</td>
</tr>
<tr>
<td>pirr</td>
<td>-</td>
<td>leave it !</td>
</tr>
</tbody>
</table>

These examples can all be viewed as contractions of fully finite regular imperative constructions, that are formed with the 'Go' auxiliary. Some of these forms are listed below, with yani-, the 2nd person singular subject/Irrealis inflection of the 'Go' auxiliary.

<table>
<thead>
<tr>
<th>3-159</th>
<th>verb form</th>
<th>imperative form</th>
</tr>
</thead>
<tbody>
<tr>
<td>yani-wap</td>
<td>-</td>
<td>sit !</td>
</tr>
<tr>
<td>yani-karrbu</td>
<td>-</td>
<td>get down !</td>
</tr>
<tr>
<td>yani-pat</td>
<td>-</td>
<td>get up !</td>
</tr>
</tbody>
</table>

The six verb roots listed in 3-158 all form dynamic action verbs with the 'Go' auxiliary, and this appears to be the common feature that permits deletion of the auxiliary verb.

The major difference between fully finite imperatives, and isolated imperative verb roots, is that the latter have greater illocutionary force. Being typically either mono-syllabic, or di-syllabic, the brevity of verb roots is conducive to their imperative use with strong articulatory force. Within normal discourse constraints they are generally used only to children and dogs. Syntactically, of course, isolated verb roots differ from finite imperatives in their inability to be explicitly associated with a nominal argument through the normal means of pronominal cross-referencing. However given the role of imperatives within discourse, subject reference is typically very clear.

Where isolated verb roots, functioning as imperatives, follow full finite verbs within a single breath group, as in 3-160 below;

<table>
<thead>
<tr>
<th>3-160</th>
<th>finite verb</th>
<th>imperative form</th>
</tr>
</thead>
<tbody>
<tr>
<td>wembem ngayi-nide ya fi tyuk pirr</td>
<td>house 1sg -LOC 2sg Poke-Mp-place leave PRO SU Irr</td>
<td></td>
</tr>
</tbody>
</table>

Put it down in my house and leave it !

they appear to constitute examples of multiple verb roots being governed by a single auxiliary. Again, I analyse such examples as two independent verbs, with auxiliary deletion in the latter VP. The tendency for the latter verb root to bear stress marking, and be set off by a pause, supports such an
analysis Example 3-160 above, is therefore treated as a contraction of 3-161 below.

3-161 wembem ngayi-nide ya -fi -tyuk, yani -pirr
   house  1sg -LOC 2sgPoke-Mp-place  2sgGo-leave
   PRO    SU I Ir r        SU I Ir r

Put it down in my house and leave it!

Note that the auxiliary deletion permitted in the latter VP of 3-160 is facilitated by the shared imperative structure of the two VPs. An isolated imperative verb root cannot tail a declarative VP in this manner, but would require being set off as an independent breath group. Thus, 3-162 below is impermissible.

3-162 *nga -fi -tyuk-pe pirr
   1sgPoke-Mp-place-Fut leave
   SU I Ir r

I'll place it down, and you leave it!

3.3.3.4 Derived Verb Roots
3.3.3.4.1 Adjectival Verb Roots

In addition to the closed class of 160-odd verb roots, most Ngan'gityemerri adjectives can function as verb roots without any particular morphological marking of their denominalised status. Consider the underlined forms in 3-163 to 3-165, functioning as adjectives in the a) examples, and as verb roots in the b) examples.

3-163 a) yubu yirim ?
   good  2sgSit
   SU Pres

Are you well?

b) wamanggal deminy-ngi-yubu wakay
   doctor  3sgHands-1sg-good finish
   SU Perf DO

The doctor cured me / made me good.

3-164 a) lamurity yenim-madiwirri
   happy  3sgGo-play
   SU Pres

He's playing happily.

b) bengim-ngi-lamurity
   3sgBash-1sg-happy
   SU Pres DO

He makes me happy.
3-165 a) wurr yerifun-kana, wa -pul -ngini
NgK
The grass is dry now, it'll burn.

b) wurr marrawuk-ninggi wumbun-verifun
The dry season wind has dried the grass out now.

3.3.3.4.2 Derived Bodypart Verb Roots
A small number of the major bodyparts have been found to occur in verbs that have the overall structure of complex verbs, but no verb root. That is, they consist of an auxiliary of the type that only co-occurs with verb roots, (ie. 'complex auxiliaries'), and a bodypart, but the expected verb root is simply missing. In these examples the bodypart appears to act as a verb root, in the sense that it fills the condition that the auxiliary requires another verbal constituent with which to co-occur. Verbs of this type have only been found to employ those auxiliaries that can be said to have a fairly clear-cut, overt semantic component attributable to them, and in this sense the auxiliary can be seen to take over some of the role normally performed by the verb root.

3-166 a) door ngum -bi -derri
1sgSlash-2sg-back
SU Perf IO
I knocked on the door for you.

b) tyi dangim-tyerr
breast 3sgPoke-mouth
SU Pres
She's breastfeeding it.

c) ngariny -nyi-fi -me
1sgPoke-2sg-Mp-hand
SU Perf DO
I gave it to you.

d) da-madi ngubum-madi
Bp-chest 1sgBash -chest
cl SU Perf
I cut his chest cicatrices.
3.3.3.4.3 Ngan- Derived Locative Verb Roots

Ngan- occurs as a locative proclitic to nouns and verbs, and can take either its immediate host or an entire clause within its scope (see 5.3.4). Additionally ngan- prefixes major bodyparts to derive locational verb roots. Such verb roots can only co-occur with the intransitive 'stative' auxiliaries, 'sit', 'lie', 'stand', and 'go'. The resultant verbs specify the orientation of the subject by the choice of auxiliary, and the location of the subject by the derived verb root. That is, the subject is located in relation to a literal bodypart, as in 3-167;

3-167 a) nendu dini -ngan-derri-tye
   NgK horse 3sgSit -LOC -back -Past
   SU Plmp
   He was sitting on the horse's back.

   b) ngiriny -nyi-ngan-wantyirr
      1sgSit -2sg-LOC -side/arm pit
      SU Pres DO
      I'm sitting at your side.

or in a place that can, in a classificatory sense, be thought of as a bodypart.

3-168 a) bude wibem -ngan-madi
       nest 3sgLie -LOC -chest
       SU Pres
       (The bird) is lying in (the concave hollow of) the nest.

   b) ngi -mbi-ngan-mentyi-pe
      1sgSit -2sg -LOC -neck -Put
      SU Irr IO
      I'll wait for you.
      (lit: I'll sit on the neck/track for you)

3.3.3.4.4 Garr- Derived Motional Verb Roots

Garr- prefixes two bodyparts madi - 'chest' and derri - 'back', to derive verb roots of motion towards and motion away, respectively. This prefix is otherwise unattested within either the nominal or verbal morphology of Ngan'gityemerri. Garr- derived verb roots have only been found to co-occur with the stative 'Go' auxiliary.

3-169  a) gaganim-garr-madi
        3sg Go -MOT -chest
        SU Pres
        He's coming up.
b) gaganim-garr-derri
   3sg Go -MOT -back
   SU Pres
   He's going away.

It is presumed that the point of reference for 'motion towards' or 'motion away' is based on the location of the speaker. However it remains unclear how this differs from the directional verbal enclitics pagu -HITHer and pefi -THITHer (see 6.2.2).

3-170  a) gaganim-pagu
       3sg Go -HITH
       SU Pres
       He's coming up.

       b) gaganim-pefi
           3sg Go -THITH
           SU Pres
           He's going away.

3.3.3.4.5  Werr- Derived Associative Verb Roots

Of the class of nominal enclitics in Ngan'gityemerri, the ASSOCiative enclitic has the form -werre/werri(K) (cf. 6.1.4).

3-171  de -bi -werre
       BP-thigh-ASSOC
       cl
   trousers

A few examples of nominal compounds employ the related associative form werr-, as in 3-172.

3-172  a) wur-werr -tyi
       F -ASSOC-breast
       cl
       a pubescent woman
       (lit: woman having breasts)

       b) e -werr -balarr
           A-ASSOC-feathers
           cl
           birds (generic)
           (lit: animals having feathers)

This form of the ASSOCiative plays a minor role in compounding with bodypart terms to derive verb roots, as in 3-173, where in combination with the 'Lie' auxiliary, it forms a verb meaning 'to hear'.

3-173  ngibem -bi -werr -tyeri
       1sgLie  -2sg-ASSOC-ear
       SU Pres IO
       I can hear you.
       (lit: I lie having ears for you)
3.4 Tense, Aspect and Mood

The auxiliary root is only one of several parts of the entire verbal complex that carry information about tense, aspect and mood. Tense is additionally encoded by enclitics to the verb, and the intransitive auxiliaries can be serialised to the verb where they function as aspect operators. The tense/aspect/mood information packaged within a full verb can therefore be seen as a product of several interacting systems, that partially overlap, as can be seen in the following example;

3-174 ngeme -baty -tye -ngagadi
1sg Hands-hold Past 1sg Go
SU Plmp SU Plmp

I was going along carrying it.

where the 'Hands' auxiliary root is inflected for 'Past Imperfective', the verbal enclitic -tye denotes 'Past' tense, and the serialised auxiliary -ngagadi concords with the auxiliary root in its 'Past Imperfective' inflection, and conveys imperfective aspect. The significance of this, at times, redundant marking, will become apparent when we look at the Ngan'gikurunggurr data.

This section investigates these several mechanisms that interact to determine the tense, aspect and mood coding in the Ngan'gityemerri verb. The tense/aspect/mood categories for which the auxiliary verb inflects, are dealt with in 3.4.1. In 3.4.2 we return to the discussion of the auxiliary root morphology, noting some evidence of what appear to have been regular auxiliary root final suffixes. The auxiliary inflectional categories additionally interact with tense enclitics to the verb. The form of these enclitics and the nature of their auxiliary combinations are looked at in 3.4.3. Other verbal enclitics that precede the final tense enclitics, such as the focus marker -nyine/-kana(K), and -gumu/-gimi(K) 'while', -ne/-ngini(K) 'just about to' and -pefi 'beginning to', are examined in 3.4.4. The posture/motion auxiliaries can be serialised to certain categories of complex verb denoting progressive aspect. The serialisation of these auxiliaries is dealt with in 3.4.5. Finally, 3.4.6 examines the aspectual nature of verb root reduplication.

3.4.1 Auxiliary Tense/Aspect/Mood Categories

Ngan'gwiwumirri auxiliaries have four inflectional tense/mood/aspect categories, labelled 'Present', 'Perfective', 'Past Imperfective' and 'Irrealis'. In example 3-175 below, the Ngan'gwiwumirri 'Sit' auxiliary is inflected through these four categories.
'Present'

'Present' auxiliary inflection only combines with the Ø present tense enclitic to form the present indicative tense. The present indicative generally marks the activity expressed by the verb as being in progress at the moment of the speech act, e.g.

3-176 gagu ngirim-lalirr
animal 1sgSit -eat
generic SU Pres
I'm eating meat.

However the extension of the present indicative to form statements about habitual or universal (in the sense of Lyons (1968:306)) activity, requires that the notion of 'in progress' allow for activity that is ongoing in a more general sense, without that activity necessarily being underway at the precise moment of speech.

3-177 mipurr walalma wannim
man hunt 3plGo
SU Pres
The men are hunting,
or Men hunt.

'Perfective'

The 'Perfective' auxiliary inflection, like the 'Present', only combines with the Ø present tense enclitic14, forming the past perfective. Past

---

14 'Present' is thus clearly an inadequate label for this Ø enclitic. The label is only employed because of the natural opposition with 'future' -pe and 'past' -tye.
perfectives have both temporal and aspectual concerns. They establish the timing of an activity as prior to the time of the speech act, and further present that activity as a single completed action, without regard for its internal temporal make-up.

3-178 gagu ngiriny-lalirr
animal 1sgSit -eat
generic SU Perf
I ate meat.

'Past Imperfective'

The 'Past Imperfective' auxiliary inflection combines with the 'Past' tense enclitic -tye, to form a category that also has both temporal and aspectual concerns. The Past Imperfective establishes activity as temporally prior to the moment of speech, that is, not only the inception of the activity, but also the completion of the activity, is located as temporally prior to the reporting of that activity. So an activity or event marked in this way can no longer hold true at the moment of speech. The Past Imperfective category is alsoaspectually progressive or imperfective, in the sense that the activity is presented as having been, at that time, in progress and non-completed.

3-179 gagu ngini-lalirr-tye
animal 1sgSit-eat -Past
generic SU Perf
I was eating meat.

Consistent with this progressive aspect, the Past Imperfective is also employed in statements about habitual or universal activity. In contrast to the Present habituals discussed above, Past Imperfective habituals no longer hold true at the moment of speech.

3-180 ration wa-mumu-nimbi wurrimu -wawu-tye
M-taboo -SOURCE 3plSnatch-pick -Past
cl =policeman SU Pimp up
They used to collect their rations from the policeman.

'Irrealis'

The 'Irrealis' auxiliary category differs from the three realis categories ('Present', 'Perfective' and 'Past Imperfective') in having only modal, not temporal, concerns. Verbs having auxiliaries inflected for 'Irrealis' can only encode temporal reference through exploiting other tense marking mechanisms, such as the verbal enclitics -tye 'Past' and -pe/-ngini(K) 'Future'.

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'Irrealis' auxiliary inflection simply establishes that the activity has not come about, or been undertaken, prior to the moment of speech, or that it will, might or should come about, or be undertaken, subsequent to it. The combination of 'Irrealis' auxiliary inflection and 'Future' tense enclitic -pe/-ngini(K) forms claims about subsequent events, as in 3-181;

3-181 ngani -pe
1sgGo-Fut
SU Irr
I will go/might go.

and the combination of 'Irrealis' inflection and the 'Past' tense enclitic -tye, claims the non-realisation of prior events, as in 3-182.

3-182 ngani -tye
1sgGo-Past
SU Irr
I would've/should've gone.

Unlike Ngan'giwumirri, Ngan'gikurunggurr auxiliaries have only three inflectional tense categories. The glosses for these are listed below with their tense/aspect/mood values.

Pres - present/past perfective/habitual
Plmp - past imperfective/distant past/past habitual
Irr - irrealis (i.e. future /past negative)

In example 3-183 below, the Ngan'gikurunggurr 'sit' auxiliary is inflected for these three available categories.

3-183 a) ngirim-fifi
NgK 1sgSit-smoke
SU Pres
-I'm smoking/ I smoke/

b) ngini -fifi -tye
1sgSit-smoke-Past
SU Plmp
-I was smoking/ used to smoke.

c) ngiwi -fifi -ngini
1sgSit-smoke-Fut
SU Irr
-I will have a smoke.

The 'Irrealis' and 'Past Imperfective' categories in Ngan'gikurunggurr have the same tense, aspect and modal elements as their corresponding Ngan'giwumirri counterparts. However the two categories which are
glossed as 'Present' and 'Perfective' in Ngan'giwumirri, appear to have been collapsed in Ngan'gikurunggurr into a single inflectional category labelled 'Present'. The range of tense/aspect/mood values covered by the Ngan'gikurunggurr 'Present' appears to be the sum of the range of tense/aspect/mood values of the two distinct Ngan'giwumirri inflectional categories 'Present' and 'Perfective'. This is demonstrated in a comparison of the range of meanings given in 3-175 a) and b), and 3-183 a). The motivation for, and consequences of, the merging of these auxiliary inflectional categories in Ngan'gikurunggurr is addressed in the following section.

3.4.2 Historical Auxiliary Tense Suffixes

So far we have seen that Ngan'giwumirri auxiliary roots inflect for the four tense/aspect/mood categories Present, Perfective, Past Imperfective, and Irrealis (cf. 3.4.1), and that the auxiliary root forms, can be characterised as having the syllabic structure 'N', 'CVN' or 'CVCVN' (cf. 3.2.2). More accurately we can characterise the auxiliary root templates as Ø-, CV-, or 'CVCV-' followed by an element (-N or -NV or Ø) that has fairly regular formal correspondences across the four tense/aspect/mood categories. In 3-184 below, the 1st singular subject-auxiliary sequences of these four categories are set out, for the 'Sit', 'Say', 'Hands', 'ShoveDtrD', 'PokeDtr', 'HandsDtr' and 'FeetDtr' auxiliaries. The final -N or -NV element of the auxiliary root is set apart and given in bold script.

<table>
<thead>
<tr>
<th>Sub</th>
<th>Aux Root</th>
<th>Tense/Aspect/Mood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sit</td>
<td>ngi ri m</td>
<td>-Pres</td>
</tr>
<tr>
<td></td>
<td>ngi ri ny</td>
<td>-Perf</td>
</tr>
<tr>
<td></td>
<td>ngi Ø ni</td>
<td>-PImp</td>
</tr>
<tr>
<td></td>
<td>ngi Ø Ø</td>
<td>-Irr</td>
</tr>
<tr>
<td>Say</td>
<td>ngu mu m</td>
<td>-Pres</td>
</tr>
<tr>
<td></td>
<td>ngu mi ny</td>
<td>-Perf</td>
</tr>
<tr>
<td></td>
<td>ngu Ø me</td>
<td>-PImp</td>
</tr>
<tr>
<td></td>
<td>ngu mu Ø</td>
<td>-Irr</td>
</tr>
<tr>
<td>Hands</td>
<td>nge ri m</td>
<td>-Pres</td>
</tr>
<tr>
<td></td>
<td>nge ri ny</td>
<td>-Perf</td>
</tr>
<tr>
<td></td>
<td>nge Ø me</td>
<td>-PImp</td>
</tr>
<tr>
<td></td>
<td>nge Ø mi</td>
<td>-Irr</td>
</tr>
<tr>
<td>ShoveDtrD</td>
<td>ngu de m</td>
<td>-Pres</td>
</tr>
<tr>
<td></td>
<td>ngu de ny</td>
<td>-Pres</td>
</tr>
<tr>
<td></td>
<td>ngu de ni</td>
<td>-PImp</td>
</tr>
<tr>
<td></td>
<td>ngu de Ø</td>
<td>-Irr</td>
</tr>
</tbody>
</table>
From a comparison of these forms we would have little hesitation in proposing a di-morphemic constituency for the verbal component that we have up until now labelled 'auxiliary root'. For each auxiliary listed we find a fairly stable auxiliary root component (though there is some alternation in 'Sit', 'Say' and 'Hands' between overt forms and Ø forms, and some variation in vowel quality). And as regular suffixes to these we find the tense/aspect/mood markers set out in Table 3-7.

Ngan'gityemerri Historical Auxiliary Root Suffixes

<table>
<thead>
<tr>
<th></th>
<th>Realis</th>
<th>Irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>-m</td>
<td>-0</td>
</tr>
<tr>
<td>Perfective</td>
<td>-ny</td>
<td>-ni</td>
</tr>
<tr>
<td>Past Imperfective</td>
<td>-ni</td>
<td></td>
</tr>
</tbody>
</table>

Table 3-7

We would need to note certain irregularities, such as me instead of the predicted ni in the Past Imperfective forms of 'Hands' and 'Say', and mi instead of Ø in the Irrealis form of 'Hands'. Generally though, on the basis of the data presented in 3-54, we would want to acknowledge the Table 3-7 forms as a synchronically productive suffix system.

Testing the regularity of these putative suffixes across the four Ngan'giwumirri categories of inflection for all 31 auxiliary roots (see the auxiliary paradigms listed in Appendices A and B), we find evidence of Present -m, Perfective -ny, Past Imperfective -ni and Irrealis -Ø in about 74% of subject-auxiliary sequences. The remaining 26% of subject-auxiliary sequences are either suppletive forms or irregularities like those noted for
'Say' and 'Hands' above. The picture is even less clear in Ngan'gikurunggurr where, as we shall see in the following section, the distinction between the two inflectional categories, Present and Perfective, has been neutralised.

I conclude that at a previous stage in Ngan'gityem erri there was probably a fully productive system of tense/aspect/mood suffixation to the auxiliary root, with the morphological forms as given in Table 3-5. A fairly high rate of suppletion and Ø realisation mean that the variation in auxiliary root inflectional forms is not synchronically conditioned, and any attempted segmentation is currently unprofitable. In view of the evidence that the contemporary Ngan'gityem erri synthetic/agglutinative verbal structure has developed from a phrasal verb consisting of an independent verb root and a finite auxiliary verb (see Reid, to appear), we might assume that the auxiliary suffixes in Table 3-7 once functioned as the primary mechanism for encoding tense/aspect/mood categories in this phrasal verb, and that the verbal tense enclitics -tye and -pe/-ngini(K) (see 3.4.3) have developed comparatively recently.

In view of the evidence presented above for Ngan'gityem erri having once had productive auxiliary suffixes, with labial -m marking 'Present', and laminal -ny marking 'Perfective', we will return to the discussion of the merging of the 'Present' and 'Perfective' auxiliary tense/aspect/mood categories in contemporary Ngan'gikurunggurr. In Ngan'giwumirri, the hetero-organic nasal + consonant clusters formed at the morpheme boundary between the auxiliary root and whatever verbal constituent immediately follows it, must necessarily be strictly maintained, for the very reason that the quality of the nasal is the crucial determinant of the tense/aspect/mood inflectional category. This is apparent in 3-185 where Present -m and Perfective -ny form hetero-organic clusters with following labial, apical, laminal and dorsal consonants, respectively.

3-185 a) ngisyem-wurr - I'm pulling it out.
   ngisyeny-wurr - I pulled it out.

b) ngerim-du - I'm touching it.
   ngeriny-du - I touched it.

c) ngaganim-tyerr - I'm stopping.
   ngaganiny-tyerr - I stopped.

d) mem-ngiti - He's telling me.
   meny-ngiti - He told me.
In contrast, the final nasal of the Ngan'gikurunggurr auxiliary root is a morpho-phonemic N, a class of the alternating phonemes /m, n, ny/ and /ng/. The phoneme is selected in terms of assimilation rules conditioned by the place of articulation of the following consonant. Compare 3-186 with 3-185 above.

3-186 a) ngisyen-wurr → ngisyem-wurr
   NgK - I pull/pulled it out.

   b) ngerin-du → ngerin-du
     - I touch/touched it.

   c) ngaganiny-tyerr → ngaganiny-tyerr
     - I'm stopping/I stopped.

   d) meN-ngindi → meng-ngindi
     - He's telling/He told me.

As the morpho-phonemic N of 'Present' Ngan'gikurunggurr auxiliary roots, results from the collapse of hetero-organic clusters at this morpheme boundary, we can see that the final nasal of the auxiliary root can no longer encode a distinction between tense/aspect/mood categories. Assuming that Ngan'gikurunggurr once also maintained a distinction between 'Present' and 'Perfective' categories, we could go further and hypothesize that the neutralisation of this distinction resulted from the pressure towards homorganic clusters at the boundary between the auxiliary root and the verb stem.

In support of this hypothesis it should be noted that the neutralisation is one of formal marking, and is not intended to imply that the underlying categories themselves have been neutralised. The distinction between Present and Past Perfective can still be encoded on Ngan'gikurunggurr verbs by exploiting the other tense marking strategies noted in introduction to 3.4. It is because of the overlap in the mechanisms that mark tense/aspect categories, that the loss of the overt morphological marking of the distinction between auxiliary root Present and Perfective inflections in Ngan'gikurunggurr, does not result in the loss of these underlying categories, nor does it prevent these temporal distinctions from being overtly encoded by other strategies. Example 3-187 below demonstrates how the distinction between Present Imperfective and Immediate Past Perfective is marked in Ngan'gikurunggurr, through the use of a serialised auxiliary in a), and by a temporal focus marker in b).

3-187 a) ngerim -wurity-ngirim
   NgK 1sgHands-fix -1sgSit
   SU Pres SU Pres
   I'm fixing it.
3.4.3 Tense Enclitics

In the introduction to 3.4 we saw that the job of marking tense categories in Ngan'gityemerri verbs is split between three separate, partially overlapping systems. It is one of these systems, the tense markers encliticised to the verb, that are treated in this section.

The tense enclitics employed in Ngan'gityemerri, -tye 'Past', -Ø 'Present', and -pe/ngini(K) 'Future', are demonstrated in example 3-188 below.

3-188 a) nganggidi-tye
1plinc Go-Past
SU Plmp
We (plinc) went.

b) ngangginim-Ø
1plinc Go -Pres
SU Pres
We're going.

c) ngambani-pe
1plinc Go-Fut
SU Irr
We will go.

Note that the Ngan'gikurunggurr future tense enclitic, as in Marrithiyel (Green 1989), is homophonous with the nominal purposive enclitic.

3-189 a) wamangganngal-ngini ngambani-ngini
NgK wallaby -PURP 1plinc Go -Fut
SU Irr
Let's go (hunting) for a wallaby.

b) wamangganngal-ne ngambani-pe
NgW wallaby -PURP 1plincGo -Fut
SU Irr
Let's go (hunting) for a wallaby.

Like the other verbal enclitics, tense marking enclitics also show '2nd Position' (in the sense of Klavans, 1980) clitic behavioural characteristics.
The examples below demonstrate the shift of verbal tense enclitics to clause-initial constituents.

3-190 ngayi-pe ngumu -syarr keninggisyi
1sg -Fut 1sgSlash-scrape canoe
PRO SU Irr
I'll bale out the boat.

3-191 kuderri wune-tye wiri -palak pikinduwung
billabong that -Past 3sgSit-drop placename
place SU Irr
She (Pelican) had intended to lay (her egg) at that billabong, Pikinduwung.

3-192 wun -ambirri-pe ngumu -nirrki-wa Batchelor
there-ahead -Fut 1sgSnatch -2dl -pick
SU Irr IO up
I'll get (some beers) for you up ahead at Batchelor.

As noted above, tense marking is achieved cumulatively through the exploitation of several systems, most particularly the auxiliary inflectional categories and the enclitic tense markers. These systems cannot conflict, thus for instance, verbs with Past Imperfective auxiliary inflections cannot select either Present tense enclitic -Ø, or Future enclitic -pe/-ngini(K). Likewise verbs with Present auxiliary inflections cannot select either Past Imperfective tense enclitic -tye, or Future enclitic -pe/-ngini(K). The unacceptability of such conflicting tense category combinations is demonstrated in the ungrammatical examples in 3-193 and 3-194.

3-193 a) *nganggidi -Ø
1plincGo-Pres
SU PImp

b) *nganggidi -pe
1plincGo-Fut
SU PImp

3-194 a) *ngangginim-tye
1plinc Go -Past
SU Pres

b) *ngangginim-pe
1plinc Go -Fut
SU Pres
Recall however (cf. 3.4.1), that the auxiliary inflectional category labelled 'Irrealis' is a strictly modal category that differs from other auxiliary inflections in conveying no temporal information. Consequently it should be noted that the combination of Irrealis auxiliary inflection and Past tense enclitic -tye, as found in examples 3-195 and 3-196 below, does not constitute a violation of the constraint on conflicting tense marking systems. Indeed this is the way in which all past unreal constructions are typically structured.

3-195 ngambani-tye tawun
1plInclGo -Past Darwin
SU Irr
We should have gone to Darwin.

3-196 awa-purrpurrk-pagu waddi-tye
Hg -little'uns -HITH 3plGo-Past
cl SU Plmp
The kids came along,
minbe-nyine-tye warri -batybity-wirri
Neg -FOC -Past 3plPoke-sew -3plSit
SU Irr redup SU Irr
and they were unable to be sewing then.

3.4.4 Other Verbal Enclitics
3.4.4.1 -nyine/-kana(K) Focus 'now/then'
Ngan'giwumirri -nyine and Ngan'gikurunggurr -kana are temporal focus markers that can combine with any auxiliary inflection, and are variously glossed as 'now' and 'then'. Like most of the enclitics discussed here they generally appear after the verb root, as in example 3-197, but also display a preference in selecting clause initial words as their host. Consequently, where the verb is preceded by an overt nominal, as in examples 3-198 and 3-199, it is this constituent to which the temporal focus marker attaches itself.

3-197 pat -Ø meny-ngirrki dangim-fi -sul -nyine
arise-IMP 3sgSay-1dlex 3sgPoke-Mp-shine-FOC
SU Perf IO SU Pres
'Get up!' he told us, 'its daybreak now'.

3-198 ngarranygi -fi -tit, miyi-nyine
1plexPokeDtr dl -Mp-arise plant-FOC
SU Perf SU food
We (dl) got up, and his wife
gagu mityity fry-meyi -tye -yedi
animal white -3sgDo-Past-3sgGo
generic woman SU Plmp SU Plmp
was frying breakfast then.
Although they generally pattern with the nominal and verbal enclitics, nyine and kana (K) have the capacity to occur as independent freeform particles. In 3-200 below nyine occurs clause-initially, and in 3-201 as a separate phonological word that plays host to the copied verbal directional and tense enclitics.

3-200  nyine ngaram -fi -pal
FOC  1sgPokeDtr-Mp-return
SU  Pres
I'm on my way back home now.

3-201 ngerrmigi -pat -pe, nyine-pefi -pe
1plexHands dl-arise-Fut  FOC  -THITH-Fut
SU  Irr
SU
We (dl ex) are just about to set off,...now !

3.4.4.2  -gumu/-gimi(K) 'while'

In 6.2.6 I describe the use of -gumu as a semblative enclitic to nominals. -Gumu additionally functions, in a completely unrelated sense, as a marker of progressive/incompletive aspect. In this capacity -gumu functions at clause level, i.e. having scope over the entire clause, not merely the constituent that happens to host it. As noted for other clause level enclitics, -gumu can either select the verb as its host, or may appear on negatives, interrogatives, or verbal arguments that immediately precede the verb.

As a marker of progressive/incompletive aspect -gumu interacts differently with the modal categories realis and irrealis. In the two realis incompletive mood/aspect auxiliary inflectional categories, Present and Past IMPerfective, -gumu denotes a subordinate clause as the temporal frame for a main clause. To employ the terms used by Chung and Timberlake (1985), -gumu designates the clause over which it has scope, as the 'event frame' with respect to which the main clause proposition is evaluated. The 'event frame' is progressive/incompletive and therefore designates an interval of time. The main clause predicate, which must be a telic, perfective verb, falls within this temporal frame. This construction type, where an imperfective clause subordinated by -gumu serves as the temporal frame for a perfective
main clause, is exemplified in the examples below. In 3-202 and 3-203 the -gumu subordinated predicate is in the Past IMPerfective, and in 3-204 it is in the Present. Both these auxiliary inflectional categories are inherently progressive.

3-202 winni -ngiti-ngidi-gumu -tye, taya wunu ngeriny -wurity 3plSit - 1sg -wait -WHILE-Past tyre that 1sgHands-fix SUPImp IO SU Perf
While they waited for me, I fixed that tyre.

3-203 firri winge -gumu -tye, darany -fi -tit dream 3sgLie-WHILE-Past 3sgPokeDtr-Mp-raise SU PImp SU Perf
While he was dreaming, he got up (sleep-walking).

3-204 warrmadi yu -ket-Ø, minbe-gumu dinyinggin-nin -kerrety quick 2sgSlash-cut-Imp Neg -WHILE 3sgSee -1dinc-watch SU Irr SU Pres DO
Cut it quickly !, while he's not looking.

The irrealis modal category interacts with the aspectually progressive -gumu to derive the conative sense of 'try and do X'. This use of -gumu has only been recorded with 2nd person subjects in utterances that are otherwise structured as imperatives. In pragmatic terms the force of this construction is in softening imperatives.

3-205 a) yinyirri -gumu-Ø 2sgSee -TRY -IMP SU Irr
Have a look !

b) peke yemi -ngiti-fityi-gumu-Ø tobacco 2sgHands-1sg -roll -TRY -IMP SU Irr IO
Try 'n roll me a smoke !

c) yim -werr -tyeri-gumu-Ø 2sgLie-ASSOC-ear -TRY -IMP SU Irr
See if you can hear !

Note that -gumu marked clauses can only stand as main clauses in the future. Non-future -gumu clauses can only designate a temporal frame for another, main clause. Thus the unclosed potentiality of the conative construction cannot be allowed within non-future predicates in
Ngan'giwumirri. The typology of mood is such that events are either actual or non-actual, and are morphologically so marked as realis or irrealis respectively. As all non-future expressions are relatively certain as to their actuality they must be explicitly marked as being either actual or non-actual. In the non-future an event has either happened or it has not. This certainty with respect to actuality mitigates against the conative interpretation in non-future predicates.

3.4.4.3 -ne/-ngini(K) 'just about to'

6.1.3 deals with the purposive case marking function of the nominal enclitic -ne / -ngini (K). This enclitic also has a verbal function, where it is glossed as 'INTENTive'. In combination with the irrealis auxiliary inflectional category and past tense verbal suffixes, it encodes the deontic modal sense of the subject's intention to realise an event. That this event was ultimately unrealised is encoded by the irrealis auxiliary inflection. In 3.4.1 we saw that the combination of irrealis auxiliary mode and past tense marking denotes general non-realisation, as in example 3-206 below.

3-206 ngarrani -tye
1plexGo-Past
SU  Irr
We were going to go....(but didn't).

The addition to this construction type of the 'intention' enclitic specifies that the subject's resolve to carry out that event, was good leading up to the moment of execution, but was thwarted at the last moment by some external imposition.

3-207 ngan'gi ngumu-ne -tye, epe wunu-pagu
word 1sgSay -INTENT-Past BUT there -HITH
SU Irr
warmadi wudum -ngi-tyerr -palak,
quick 3sgShoveDtrD -1sg-mouth-drop
SU Perf DO
I was about to speak out, when someone from over there quickly prevented me.

3-208 gagu wunu ngubu -da -ne -tye, epe nginyirri
animal there 1sgBash-shoot-INTENT-Past BUT 1sgSee
generic SU Irr
emebe -werre, ngaganiny-pirr
young 'un-ASSOC 1sgGo -leave
SU Perf be
I was about to shoot that (wallaby), but I saw that it had a young'un, so I left it alone.
I was about to wander off, but fortunately you just turned up.

3.4.4.4 -pefi Co-temporal, Durative, Inchoative

-Pefi encliticises stative verbs that can inflect for the two auxiliary tense/aspect categories, Past Imperfective and Present, that are incompletive. Past Imperfectives, as in 3-210 below, are by definition (cf. 3.4.1) aspectually durative.

3-210 ngini -tye
1sgSit-Past
SU Plmp
I was sitting

On such verbs the encliticisation of -pefi exaggerates this inherent durativity, denoting the excessively prolonged duration evidenced in the glosses of the examples below. Within narrative discourse the delivery of these kinds of verbs typically involves exaggerated lengthening of the final vowel, (so it is the past tense marker that is lengthened, not the durative marker.)

3-211 yarany -fi -pal kinyi, yini -pefi -tye, 2sgPokeDtr-Mp-return here 2sgSit-DUR -Past
SU Perf AP SU Plmp
You returned here and were hanging abooooout....
yini -wurrkama-tye peyipa nyinyi 2sgSit-work -Past paper 2sg
SU Plmp PRO
working on your papers.

3-212 ngarany -fi -tit, ti ngiriny-kuduk 1sgPokeDtr-Mp-arise tea 1sgSit -drink
SU Perf SU Perf
I got up, drank some tea,
ngini -pefi -tye dengini yubu depi ngayi pipiri 1sgSit-DUR-Past body good head 1sg brain
SU Plmp PRO
and sat aroooound..... 'til my hangover cleared.

3-213 ngambanigerri-pefi -tye, karrawa kine ngiminy-bi 1plincGo -DUR-Past place this 1sgSay -2sg
SU Plmp name place SU Perf IO
We kept traaaaavelling, 'this place here is Karrawa' I told you.
Attached to stative verbs bearing Present auxiliary inflections, -pefi in combination with the temporal focus marker -nyine/-kana (K), makes these into inceptive process verbs. Contrast 3-214 to 3-218 a) with the inchoative examples in 3-214 to 3-218 b).

3-214 a) yenim-fuy
3sgGo-smell
SU Pres
It smells.

b) yenim-fuy -nyine-pefi
3sgGo-smell-FOC -INCH
SU Pres
It's beginning to smell now.

3-215 a) dudu -mem -gen -ge
swell -3sgDo-middle-belly
SU Pres
His guts are swollen.

b) dudu -mem -gen -ge -nyine-pefi
swell-3sgDo-middle-belly-FOC -INCH
SU Pres
(The carcass) is beginning to bloat now.

3-216 a) misi-yenim
die -3sgGo
SU Pres
He is dead.

b) misi-yenim -nyine-pefi
die -3sgGo-FOC -INCH
SU Pres
He is beginning to die now.

3-217 a) ngaganim-du
1sgGo -sleep
SU Pres
I'm asleep.

b) ngaganim-du -nyine-pefi, yerim -ngi-du
1sgGo -sleep-FOC -INCH 2sgHands-1sg-touch
SU Pres
SU PresDO
Just as I'm starting to fall asleep, you're waking me up!

3-218 a) dangim -tyip -nyine
3sgHands-dark-FOC
SU Pres
It's dark now.
b) **dangim -tyip -nyine-pefi**
   
   3sgHands-dark-FOC -INCH
   
   SU Pres
   
   It's beginning to get dark now.

More rarely **-pefi** is found encliticised to punctual dynamic verbs. These are verbs which cannot select Past Imperfective auxiliary inflection on account of their inherent punctuality. Describing events that are anterior to the speech act, these verbs can only select Perfective auxiliary inflection. Here **-pefi** conveys the notion "just as I was in the very act of..." or "at the precise moment that I...". This usage clearly corresponds with the inceptive focus noted above with **-pefi** marked stative verbs, though in punctual verbs which are conceived of as having no duration, the notion of co-temporality is more appropriate than inception. Consider the examples below.

3-219 ngeriny -pal -pefi, dinyirri-ngo
   
   1sgHands-break-COTEMP 3sgSee -1sg
   
   SU Perf SU Perf DO
   
   Just as I broke it, he looked at me.

3-220 club-nimbi menggeny-tasat -pefi,
   
   -SOURCE 3sgArrive -emerge-COTEMP
   
   SU Perf
   
   wa-mumu-ninggi deminy -tip
   
   M-taboo -AGENT 3sgHands-grab
   
   cl SU Perf
   
   Just as he stepped out of the club, the policeman grabbed him.

3.4.5 The Serialisation of Posture/Motion Auxiliaries

As noted in the introduction to 3.4, the four Ngan'giwumirri and three Ngan'gikurunggurr auxiliary root inflectional categories represent only one of several systems exploited to encode verbal aspect. Of these auxiliary inflectional categories I noted that the category labelled 'Irrealis' is strictly a modal category. The 'Past Imperfective' inflection combines distant past tense and imperfective aspect. The Ngan'giwumirri 'Perfective' inflection combines past tense and perfective aspect. The inflectional category labelled 'Present' in Ngan'giwumirri combines present tense and progressive aspect, whereas the category labelled 'Present' in Ngan'gikurunggurr represents the aggregate of the Ngan'giwumirri 'Present' and 'Perfective' categories. It should be apparent that the labels for these categories have been chosen to best represent their tense/mood/aspect values.
Ngan'gityemerri additionally employs a second aspect marking system; the serialisation of the intransitive auxiliaries, 'sit', 'lie', 'stand', 'go', and 'go*' as aspeсtual operators. The aspeсtual differences that can be encoded by main auxiliary substitution in intransitive verbs are dealt with in 4.4. The serialisation of auxiliaries as aspeсtual operators is not permitted on intransitive verbs of this type (i.e. on verbs constructed with an intransitive auxiliary as its main auxiliary). In this section I deal with the serialisation of intransitive auxiliaries on transitive verbs (i.e. verbs constructed with transitive auxiliaries). Other than the partial encoding of the aspeсtual categories 'perfective' and 'imperfective' by their respective main auxiliary inflections, as mentioned above, a basic transitive verb consists of an auxiliary, a verb stem and a tense marker, as in examples 3-221 and 3-222 below.

3-221 wemi -wurity-pe
   3sgHands- fix -Fut
   SU Irr
   He'll fix it.

3-222 wubu -da -pe
   3sgBash-shoot-Fut
   SU Irr
   He'll shoot it.

Before examining the function of serialised auxiliaries in any detail it is necessary to comment on the two natural classes, 'punctual verbs' and 'neutral verbs' into which all Ngan'gityemerri verbs fall. Punctual verbs, like 'hit', 'consume', 'arrive', 'see', 'die', 'cut' etc, express activities conceived of as single actions that have no internal temporal constituency. Neutral verbs express activity that can also be thought of as single actions, but which have the capacity to be variously thought of as extended over time.

Punctual verbs can only be punctual and are therefore blocked from selecting the Past Imperfective auxiliary inflection, which, as noted above, overtly encodes imperfective aspect. A punctual verb like 'shoot' can only select the perfective auxiliary inflection, as in 3-223 below, and is unacceptable with the past imperfective auxiliary inflection, as in 3-224.

3-223 egeningge wubum-da -Ø
   goose 3sgBash-shoot-Pres
   SU Perf
   He shot a goose.
He was shooting a goose.

Note though that a punctual verb can be made amenable to an 'extended over time' interpretation by some other means. In 3-225, the notion of iteration, morphologically encoded by the reduplication of the verb root, makes possible an 'extended over time' interpretation, and is permissive of imperfective auxiliary inflection.

He was shooting geese.

Contrastively, neutral verbs have the capacity to select either perfective or imperfective auxiliary inflection. Consider the verb 'to eat' in 3-226 and 3-227 below.

I ate it.

I was eating it.

Regardless of whether a transitive verb belongs to the punctual or neutral class, in the absence of any overt morphology specifying its internal temporal constituency, its unmarked form is conceptually perfective in the sense that it is perceived of as a single event. Examples 3-226 and 3-227 above, for instance, though the first is neutral and the second punctual, are expressed as single events with no information given regarding their aspectual make-up. To this extent, 'perfectivity' can be said to be the unmarked aspectual category in Ngan'gityemerri.

Imperfective/progressive aspect is encoded in transitive verbs by the serialisation of the intransitive posture / motion auxiliaries. Morphologically, these serialised auxiliaries function as enclitics to the complex verb stem. Phonologically, as their morphological status might
suggest, these enclitics are assigned no primary stress, and fall within the pitch contour assigned to the verbal complex as a single phonological word.

Serialised auxiliaries must fill the final slot of the verb following the tense markers. In this respect Ngan'gityemerri contrasts with Marrithiyel, a neighbouring language that also marks imperfective aspect on transitive verbs through the strategy of serialised posture/motion auxiliaries. In Marrithiyel the major tense/mood suffixes shift rightwards from the transitive verb to appear on the post-posed intransitive auxiliary (Green 1989:175). The ordering of these serialised auxiliaries as the final element of the verbal complex in Ngan'gityemerri, further stands as a counter-example to two of the general claims made by Foley and Van Valin about the relationship between aspectual operators and the verb nuclei over which they have scope. Foley and Van Valin (1984:210) claim that aspect is a nuclear operator while tense is a peripheral one. They argue that this difference in scope is reflected in ordering constraints in those languages that mark tense and aspect as separate inflectional categories. Quoting examples from Kewa (Franklin 1971) and Tiwi (Osbourne 1974) they note that aspect is always marked closer to the verb nuclei than tense, and add that 'they know of no cases of the inverse ordering in which tense is closer to the stem than aspect'(Foley and Van Valin 1984:210). In contradistinction to this claim Ngan'gityemerri clearly marks tense closer to the verb nucleus than imperfective aspect. This is demonstrated in 3-228 below, where the Past tense enclitic -tye immediately follows the verb root, and is in turn followed by the serialised 'Sit' auxiliary.

3-228 wanni -batybity-tye -winni warrgudu
3plPoke -sew -Past-3plSit dillybag
SU Pimp redup SU Pimp
They were sewing dillybags.

Secondly, Foley and Van Valin describe the relationship between directionals and aspectual markers (both nuclear operators) in the following way. "Kewa also has directional suffixes and provides evidence that of the two nuclear operators aspect and directionals, aspect is the more inner. For when a verb is inflected for both aspect and directionals, aspect occurs immediately following the verb stem, followed by the directional, followed in turn by tense" (Foley and Van Valin 1984:212). Unlike Kewa, in Ngan'gityemerri we find the directional enclitics, as described in 6.2.2, 'inside' the serialised aspect enclitics.
Ngan'gityemerri has a clearly definable ordering relation between tense and aspect morphemes, and between directional and aspect morphemes, in respect to the nucleus. However the orderings evidenced in examples 3-228 and 3-229 show that Ngan'gityemerri does not share the ordering constraints that, according to Foley and Van Valin (loc. cit.), are widespread in the languages of the world.

A serialised auxiliary functioning as an enclitic must concord with the main auxiliary with regard to tense/aspect/mood inflection, and subject person and number. This is demonstrated by the bold glosses in examples 3-230 to 3-232 below.

3-230 warri -batybity-pe -wirri
3plPoke -sew -Fut-3plSit
SU Irr redup SU Irr
They will be sewing.

3-231 warrim -batybity-wirrim
3plPoke -sew -3plSit
SU Pres redup SU Pres
They are sewing.

3-232 wanni -batybity-tye -winni
3plPoke -sew -Past-3plSit
SU Past redup SU Past
They were sewing.

This does not of course completely invalidate Foley and Van Valin's claim, for the serialised posture/motion auxiliaries in Ngan'gityemerri are still more than just simply markers of aspect. As is evident in the remainder of this section, while these auxiliaries are employed to mark an aspectual category, they clearly also retain, in most cases, at least some of their lexical semantic character (see for instance 3-240 to 3-242 below). If serialised auxiliaries were to lose their lexical semantic characteristics and develop into simple aspect markers, one might predict, in view of Foley and Van Valin's claim, that they might shift 'inside' the tense markers to a position closer to the verb root.

Looking now at the subjects of serialised auxiliaries, note that person concord is always with the syntactic subject, so even verbs like those given
in 3-233 to 3-236 where a non-volitional patient is cross-referenced as the direct object of an unspecified 3rd singular subject, subject marking on the serialised auxiliary copies the 3rd singular subject marking.

3-233 dani -ngi-kada-tye -dini
3sgPoke -1sg-sad -Past-3sgSit
SU Plmp DO SU Plmp
I was feeling sad / It was making me sad.

3-234 danging -ngi-fulful -yenim
NgK 3sgPoke -1sg-twinge-3sgGo
SU Pres DO SU Pres
I keep feeling this 'twinge'.

3-235 deme -nyi-mi-dit -tye -dini kuru-nimbi
3sgHands -2sg-eye-ache-Past-3sgSit liquid-CAUS
SU Plmp DO SU Plmp generic
You still had a headache from the beer.

3-236 fidi-nide wa -ngirrki-syalat-pe -wiri
heat-LOC 3sgHeatb-ldlex -warm-Fut-3sgSit
SU Irr DO SU Irr
We'll get warm in the sunshine.

Serialised auxiliaries concord only for the subject marking that is cross-referenced on the main auxiliary, and cannot play host to non-subject marking. As is evident from example 3-238 below, this constraint extends even to the copying of the indirect objects of reflexive verbs, where the IO is co-referential with the subject.

3-237 ngeme -mbi-yen'gi-tye -ngini (*-mbi)
1sgHands -2sg -tell -Past-1sgSit -2sg
SU Plmp IO story SU Plmp IO
I was telling you a story then.

3-238 demen -ne -dundum-yenim (*-ne)
3sgHandsDtr-3sg-bury -3sgGo -3sg
SU Pres IO redup SU Pres IO
(The sandfrog who) habitually buries himself in the sand.

Likewise, the subject of the serialised auxiliary cannot represent the aggregate of the subject and object arguments of the main verb, as in example 3-239 below.
Any violation of the requirement that the subjects of the main auxiliary and the serialised auxiliary be fully coreferential, are quite ungrammatical. Note that an example like 3-239 above could plausibly be interpreted as "I'm leading him, we (dlex) are going along", though to fulfil the phonological requirements of an independent clause ngannunggu (an enclitic in 3-239) would have to be set off on its own intonation contour with primary stress marking on its initial syllable.

As imperfective markers, the 'sit', 'lie', 'stand', 'go' and 'go*' auxiliaries have the same sort of classificatory role with regard to posture/motion that they display as main auxiliaries in general intransitive verbs. 'Sit', 'lie' and 'stand' classify the action of the verb with respect to the posture of the subject, e.g.

3-240 yawul karrityinmade ngebem-wurity-ngirim tyatma
spear bent 1sgBash -fix -1sgSit straight
SU Pres SU Pres
I'm sitting straightening this bent spear.

3-241 yawul karrityinmade ngebem-wurity-ngibem tyatma
spear bent 1sgBash -fix -1sgLie straight
SU Pres SU Pres
I'm lying straightening this bent spear.

3-242 yawul karrityinmade ngebem-wurity-ngirribem tyatma
spear bent 1sgBash -fix -1sgStand straight
SU Pres SU Pres
I'm standing straightening this bent spear.

As noted for the postural classification of main auxiliaries, although the serialised 'sit' auxiliary can function literally to denote a sitting postural orientation, especially when contrasted with 'lie/stand', in general it is the unmarked choice for imperfective actions performed within a single location. Thus examples 3-241 and 3-242 above can be said to be highly marked with respect to posture. The non-literal posturally unmarked usage of 'sit' results in its serialisation on verbs that are not necessarily performed in a sitting posture. This is evident in the example below, uttered by a woman standing over a boiling billy.
In addition to the encoding of imperfective aspect, the serialisation of the 'go' and 'go*' auxiliaries achieves a variety of different meanings, again parallel to the range of meanings brought about by substitution of the 'go' and 'go*' main auxiliaries. Primarily, in contrast to the postural auxiliaries, serialisation of the 'go' auxiliaries classifies an activity as aspectually imperfective, with the subject in motion. Indeed the 'extended over time' perspective can be seen to result logically from the fact that the activity is performed while the subject is in motion.

Additionally, and as noted by Green (1989:181) probably extending from the general sense of motion from place to place, serialisation of the 'go' auxiliaries can categorise verbs within several subtypes of the imperfective aspect; repetitive, progressive and habitual, i.e. 'to keep doing X, to do X again and again, to always do X'. For repetitive and progressive aspect, as noted in the discussion above on literal motion, 'go*' (in 3-248) tends to differ from 'go' in implying more motivated activity directed towards a specific goal.
malarrgu -werre -pe yarri -ket -pe -yarrini
long necked-ASSOC-Fut 2plPoke-poke-Fut-2plGo
turtle SU Irr SU Irr
(to the place) with turtles (that you women) can be poking around for.

3-248 kala ngem -puppup-nganmerr warrgadi
NgK dye 1sgMouth-place -1sgGo* dillybag
SU Pres redup SU Pres
I kept putting more 'n more dye on the dillybags.

3-249 yerr -ngini -warrgudu-gumu
Tr -KIND -dillybag -SEMBL
cl
They were repeatedly throwing a thing like a dillybag
wunni -wutyity-tye -waddi a-bilirri-ne
3plSlash -throw -Past-3plGo A-alive -PURP
SU Plmp redup SU Plmp cl
(a throw net) in order to catch live bait.

The habitual reading of 'go' serialisation differs from the progressive and repetitive subtypes of imperfective in that it is available to 'go' but not 'go*'.

3-250 madewetimbi wa-mumu-nimbi ration wurruw-wawu -tye -waddi
long ago M -taboo -SOURCE 3plSnatch -pick up-Past-3plGo
cl SU Pres SU Pres redup SU Plmp
In the old days they used to collect rations from the policeman.

3-251 nagam -fi -tal -kana-yenim, wupun -ker -yenim
NgK 3sgFeet-Mp-grow-FOC-3sgGo 3sgSlash-cheeky-3sgGo
SU Pres SU Pres SU Pres redup
As he grows older, he gets more cheeky.

3-252 detyeri-werri -yenim dem -wurity-yenim mudiga
ear -ASSOC-3sgGo 3sgHands-fix -3sgGo car
SU Pres SU Pres SU Pres
He knows how to fix cars.

3-253 Gagu a-niyen a-yaga menyirr nganimuy-nide
animal A-sandfrog A-DEM sand loose -LOC
generic cl cl
The sandfrog, that one who always buries himself in the loose sand,
demem -dundum-yenim, kine puty -meny-me niyen
3sgHandsDtr-bury -3sgGo this create-3sgDo-hand placename
SU Pres redup SU Pres place SU Perf
he made this place, Niyen.
3.4.6 The Aspectual Nature of Verb Root Reduplication

Essentially verb root reduplication is iconic of duration, though, as will become apparent, other interpretations are possible depending on the semantics of the verb. Ngan'giwumirri and Ngan'gikurunggurr verbs bear an associated aspectual framework. That is, any activity is conceived of as being either strictly punctual, or as being amenable to a durative interpretation. Verb root reduplication in non-punctual verbs is interpreted as an aspectual marker of duration.

3-254 a) ngi -tyutytyurr-pe minbe fenggiderrri
1sgSit -swim -Fut Neg long time
SU Irr redup
I'll keep swimming a bit longer.

b) kuru nyin nginni -kukuduk-tye wakay
liquid ANA 1plexSit -drink -Past finish
generic SU PImp redup
We (plex) sat around drinking those beers up.

c) wun-endi ngunni -mbi-fifili -tye -ngaddi
there-SAME 1plexSlash-2sg-search-Past-1plexGo
SU PImp IO redup SU PImp
We've been searching for you over there!

d) ya lirrmem beyin -ngi-perrey
hey cold 3sgBash-1sg-cold/stiff
SU Pres DO
marrawuk-werre wibem -fuyfuy
dry season-ASSOC 3sgLie -blow
wind SU Pres redup
Hey, I'm getting cold from this wind blowing.

Verb root reduplication in punctual verbs, on the other hand, can only be interpreted as a marker of iteration, not duration. The reason for this is that verbs that are thought of as strictly punctiliar can only be durative in the sense that they can be iterative. Put another way, punctiliar verbs can only be seen to extend over a period of time, in the sense that they can be thought of as a series of repeated actions.

In this analysis I have chosen to describe iteration in terms of duration, not the other way round. It intuitively seems more plausible to view an iterative activity like 'coughing', in terms of duration, rather than attempt to account for a durative activity, like 'sitting', in terms of 'a series of repeated events'.

Examples of reduplicated verb roots in strictly punctiliar verbs, are set out in 3-255 below.
3-255 a) warranty -gi-tyerr -pupu
3plPokeDt -dl-mouth-ask
SU Perf SU redup
They (dl) questioned each other.

b) strap ngerrminy -gagarrarr wakay
1plex Hands -roll finish
SU Perf redup
We (plex) all fastened our seatbelts.

c) ticket kinyi minbe lose'im- yurrmu-gu
this Neg -2pl Do -dl
SU Irr SU
yerrmigi -mi-fafala -pe kinnimbi
2pl Hands dl -Val-wave-Fut here-SOURCE
SU Irr SU redup
Don't lose this (plane) ticket, you'll have to keep showing it from here (on each leg of the flight).

d) nail wum -pi -dumdum
3sg Slash-head-bury
SU Perf redup
He hammered in the nail.

The split between the iterative and aspectually durative interpretations of reduplicated verb roots that is governed by the punctual/non-punctual conception of an activity, can best be demonstrated by looking at the interaction between these verbs and the auxiliary inflection system. One of the Ngan'giwumirri auxiliary inflectional categories, labelled Past Imperfective, is strongly associated with imperfectivity. Verbs denoting activities that are conceived of as being strictly punctual, cannot select the Past Imperfective auxiliary inflection unless their verb stems are reduplicated. Thus the inherently punctual verb 'to cough' in 3-256 a) below is acceptable because the verb root is reduplicated, but 3-256 b), with an unreduplicated verb root is not.

3-256 a) nginni -kilik -tye
1plex Sit -cough -Past
SU Plmp redup
We (plex) were coughing.

b) *nginni -kilik -tye
1plex Sit -cough -Past
SU Plmp
We (plex) were coughing.
The unacceptability of 3-256 b) stems from the incompatibility of a conceptually punctual activity, subcategorising for an auxiliary inflectional category that is inherently imperfective. 3-256 a) is acceptable because a punctual activity like 'coughing' can be compatible with imperfective / durative auxiliary inflection, only where it is explicitly marked as iterative by reduplication of the verb root.

Returning to the issue of additional interpretations that fall under the umbrella of iteration, we have already seen in 3-255 b) above, that verb root reduplication in punctiliar verbs can be suggestive of many subjects performing the same action. In punctiliar transitive verbs, the implication of object plurality is even stronger. Compare the difference brought to the following pairs of sentences by the reduplication of the verb root.

3-257 a)  
| wamanggal  | werrbeny-da  |
| wallaby     | 3pl Bash -shoot |
| SU Perf     |                      |

They shot a wallaby.

b)  
| wamanggal  | werrbeny-dada  |
| wallaby     | 3pl Bash -shoot |
| SU Perf     | redup           |

They shot wallabies.

3-258 a)  
| amatyi  | wum -tyirri -tu  |
| kangaroo | 3sg Slash-navel-cut |
| SU Perf  |                      |

I gutted a kangaroo.

b)  
| amatyi  | wum -tyirri -tutu  |
| kangaroo | 3sg Slash-navel-cut |
| SU Perf  | redup               |

He gutted some kangaroos.

Note that object plurality/iteration is in some instances lexically specified in the selection of verb roots. The verb roots -tyat 'place a thing in position', and -ket 'chop' in 3-259 a) and 3-260 a) below, require singular objects and cannot be reduplicated. The 'placing', and 'chopping' of multiple objects requires the selection of the verb roots -tyuk and -gerrgirr , respectively, as in 3-259 b) and 3-260 b).

3-259 a)  
| ya  | -fi -firr -tyat -Ø  |
| 2sg Poke-Mp-foot-place-IMP |
| SU Irr |                      |

Put it down at the foot of the tree!
b) \( \text{ya -fi -firr -tyuk -Ø} \)
\( 2sgPoke-Mp\text{-foot-place-IMP} \)
\( SU\text{ Irr} \)
Put them down at the foot of the tree!

3-260 a) \( \text{gagu ngebeny-ket} \)
\( animal\ 1sg\text{Bash -chop} \)
\( generic\ SU\ Perf \)
I chopped the meat.

b) \( \text{gagu ngebeny-gerrgirr} \)
\( animal\ 1sg\text{Bash -chop} \)
\( generic\ SU\ Perf\ redup\)
I chopped the meat up into bits.

Such verb roots that entail plural objects as part of their lexical semantics may still be reduplicated to stress object number.

3-261 a) \( \text{ngarriny -fi -tyityuk fepi} \)
\( 1plex\text{Poke-Mp-place rock} \)
\( SU\ Perf\ redup \)
We (plex) placed a lot of rocks down (as a border for a garden bed).

b) \( ....\text{ngan-gagu warrim-fi -tyityuk-wannim} \)
\( LOC\ -animal\ 3pl\text{Poke-Mp-place -3plGo} \)
\( REL\ generic\ SU\ Perf\ redup\ SU\ Pres\ redup\)
\( ....\text{to the place where they put many animals (the zoo).} \)

Finally, it should be noted that another interpretation of the 'durativeness' conveyed by verb root reduplication, is that of habitual activity. Verbs that are specifically marked as 'habitual', by the selection of the 'Go' auxiliary, either as a complex or serialised auxiliary, frequently bear reduplicated verb roots. Indeed this is a plausible interpretation of the relative locational clause (see 5.3.4) in 3-261 b) above: ' to the place where they habitually place animals'. See also the examples in 3-262 below.

3-262 a) \( \text{watypela missionhouse yenim-wapup} \)
\( whitefella\ 3sg\text{Go - sit} \)
\( SU\ Pres\ redup \)
\( \text{ring'up-ngirrminy-nerr} \)
\( -1plex\text{Do -dl/3sgM} \)
\( SU\ Perf\ SU/Io \)
We (dlex) rang up the bloke who lives at the mission house.
3.5 Bodypart Terms within the Verb

In Ngan'gityemerri bodypart terms have a widespread and productive role in the structure of the lexicon. The role played by bodyparts in nominal compounding is discussed in 5.2.4. This section addresses the incorporation of bodypart terms into the pre-verb root position, as exemplified in 3-263.

3-263 deme -mentyi-baty -tye
3sgHands-neck -hold-Past
SU PImp
He was holding it by the neck.

After dealing briefly with the morphology of incorporated bodypart terms in 3.5.1, I then look, in 3.5.2, at the distinction between productive, syntactic incorporation which allows for predicate arguments to be expressed within the verb, and lexical incorporation which derives a new predicate from a combination of bodypart and verbroot. Finally, in 3.5.3, an examination of their semantics shows how incorporated bodyparts have a wider range of meaning than their corresponding freeforms, and how for certain lexicalised bodypart + verbroot compounds, the bodypart functions as a classifier in respect to perceived shared qualities of entities which can fill the role of arguments to that derived predicate.

In addition to bodyparts this section notes two other nominals that have been found incorporated within the verb. That the section heading is 'Bodypart Incorporation' rather than 'Nominal Incorporation' reflects the minor role that these other nominals play.

3.5.1 Morphology of Incorporated Bodyparts

One of the ten formal noun classes in Ngan'gityemerri is made up of bodyparts. A fuller discussion of the semantics of this class, and the patterns of class marking can be found in 5.2.4. Briefly, members of this class are marked by the obligatory class prefix dV. The quality of V of this prefix is metaphorically determined by the following rule:

V -> e/\#CV[-back]
This class prefix is dropped from bodypart terms when they are incorporated into the complex verb, as in 3-265 below.

3-265 a) ngudeny -garri-fityi (cf. da-garri)
   1sgShoveDtrD-leg -roll
   SU Perf
   I crossed my legs.

b) dangim -firr -pawal (cf. de-firr)
   3sgPoke-foot -spear
   SU Perf
   He speared him in the foot.

Only a single bodypart root muy 'eye' undergoes a minor change in form, to mi, when incorporated into the verb, as in 3-266.

3-266 ngeriny -nyi-mi-ta
   1sgHands-2sg-eye-open
   SU Perf DO
   I opened your eye.

This same root behaves somewhat anomalously within the morphology of nominal compounds, appearing as muy, mity, and possibly mu, in the examples below.

3-267 muy-wasyan - eyebrow/lash
eye - hair
mity-kuru(W) - tears
eye - water
mu -dirr - eyebrow ridge
eye?-teeth/edge

Both these features, the dropping of affixes from incorporated bodyparts, and the existence of reduced or suppletive forms, are as Mithun

-> a/_#CV[+back]
(1984) notes, common typological features of noun incorporation. For Ngan'gityemerri though, it must be noted that other than the dropping of the class prefix and the minor reduction of muy to -mi-, the correspondence in form between free and incorporated bodyparts is absolute.

While essentially it is only members of the bodypart class that can be incorporated into the verb, there are two non-bodypart terms that have been recorded in this position. Misyin - 'hearth', found in the freeform nominal;

3-268  

misyn-muy  -  fireplace  

hearth - eye

incorporates into a small number of verbs involving placing objects onto a fireplace.

3-269  

miringgi yu  -fi  -misyn-wurity  

leaf  2sgSlash-Mp-hearth-place  
SU Irr

Throw the tealeaf into (the billy on) the fire!

The incorporation of misyn is a strictly lexical process (cf. 3.5.2), and it cannot be freely incorporated into any verb that describes activity that takes place in/at a hearth. Thus the attempt to incorporate misyn into the verb 'to hook something' (as in a billy off a fire) in 3-270, is unacceptable.

3-270  

ngumbun-(*misyn-)wat  misyn-muy-nimbi  
1sgSlash - (hearth -)hook  hearth-eye  -SOURCE  
SU Perf

I hooked it off the hearth.

Several verbs in Ngan'gityemerri involving activity associated with water, employ the verb root bu/buy.

3-271  

ngaganim-buy  -  I'm going along underwater  
ngerim-bubu  -  I fetch water  
deminy-bubu  -  It(turtle) is blowing bubbles

In a single verb this same form appears incorporated into the pre-verbroot slot, as in the example below.

3-272  

kuru  wibem-bu  -tyerr  

water  3sgLie-water-stop  
SU Pres

Water is lying (along the road).
This single example is lexically determined, bu being unavailable for any kind of productive syntactic incorporation. Evans (to appear) discusses the incorporation of bo as a generic for 'water' in Mayali, and other cognate forms in various Kunwinjkuan languages. He further notes that for Mayali and Ngalakan, at least, it is the only suppletive incorporated nominal.

3.5.2 Syntactic versus Lexical Incorporation

In characterising the grammatical relations holding between a verb and the bodypart terms that can be incorporated into it, Evans (to appear) has shown how a distinction between syntactic and lexical incorporation is beneficial in the analysis of bodypart incorporation in Mayali, a Kunwinjkuan language of south-west Arnhem Land. Syntactic incorporation is optional, fully productive and constrained to certain predictable grammatical relations between the incorporated nominal and predicate. Lexically incorporated nominals, on the other hand, may bear a wider variety of grammatical relations to the incorporating verb and are not fully productive. Their meaning, which may be compositional or non-compositional, cannot generally be paraphrased by omitting the incorporated nominal, or by having it appear as an external nominal (loc. cit.).

This kind of analysis can usefully be applied to Ngan'gityemerri, where syntactic incorporation also operates under fairly rigid constraints on the nature of the grammatical relations that hold between a bodypart and a predicate. Lexical incorporation, on the other hand, allows a wide variety of grammatical relations to hold between a bodypart and a predicate, although the nature of these relations is typically vague or variable, as lexically incorporated bodyparts tend to lose the semantic characteristics associated with their freeform occurrence, and function to narrow the scope of the verb rather than retaining their identity as verbal arguments. For certain bodyparts we show how their effect on the scope of a verb shows signs of developing into a quasi-classificatory system whereby they are incorporated in a general sense to qualify verbs that are directed at particular types of entities. Both these types of incorporation are treated in the following sections.

Only a single slot is available within the verbal structure for incorporated bodyparts, both syntactic and lexical incorporations competing for this position. As a consequence of this, the syntactic incorporation of verbal arguments is blocked where the verbroot is a lexicalised bodypart - verb root compound.
Syntactically incorporated bodyparts are always optional, they can be omitted from the verb and instead be paraphrased by an external nominal. Bodyparts can be syntactically incorporated into any semantically compatible verb, whereas lexically incorporated bodyparts cannot be predicted, and require specification within the lexicon.

The main types of grammatical relations that are permissive of the syntactic incorporation of bodypart terms are where their possessors are the objects and locatives of transitive verbs, or the subjects of verbs formed with the 'detransitivised' and 'Say' auxiliaries. Each of these are discussed below.

In transitive verbs the incorporated bodypart can denote the specific whole object.

3-273 ngarim -fi -yedirr-tyat
1sgPoke-Mp-hip -place
SU Perf
I stood up the tyre (hip of the car).

Or where the object can sustain a whole/part relationship, the object is crossreferenced in the verb by bound object pronouns, and the incorporated bodypart functions in apposition to it. This is exemplified nicely in the following example where the same verb is repeated with an overtly cross-referenced object and an incorporated bodypart.

3-274 wunu -purrk-tye -dini, wuni -nyi -bi -purrk-tye -dini
3sgSlash-clap -Past-3sgSit 3sgSlash-2sg-thigh-clap -Past-3sgSit
SU Plmp SU Plmp SU PlmpDO SU Plmp
He was clapping, he was slapping your thigh (in time to the music).

Additionally, syntactically incorporated bodyparts in transitive verbs can be construed with general locative or source arguments.

3-275 a) dangim -fi -tyat
3sgPoke-Mp-place
SU Perf
-He put it down.

b) dangim -fi-garri-tyat
-leg-
-He placed it against the trunk(leg) of the tree.

c) dangim-fi-firr-tyat
-foot-
-He placed it at the foot of the tree.

d) dangim-fi-panmi-tyat
-crotch-
-He placed it in the fork of a tree.
Examples 3-275 a) - e) clearly demonstrate both the optionality and productivity of syntactic incorporation. Example a) stands as a complete verb meaning to 'place something, to put it in position'. It additionally incorporates general locative arguments in examples b) - e), without deriving a new lexeme or altering the meaning of the verb in any significant way. In each of these examples the part-of-the-tree could optionally be realised as an external nominal.

Syntactically incorporated bodyparts cannot be construed as part of the Subject of a transitive clause. This can be best seen by looking at the examples in 3-276 below, where in example b) the bodypart as part-of-S is blocked from incorporation, and must appear as an external INSTRumental marked NP.

3-276 a) ngarim -Ø -tyerr -du
1sgPoke-3sg-mouth-show
SU Perf DO
I pointed to his mouth.

b) ngarim -Ø -(tyerr-)du detyerr-ninggi
1sgPoke-3sg- show mouth -INSTR
SU Perf DO
I pointed to him with my mouth.
(i.e. by pouting my lips)

Likewise where a bodypart is fully coreferential with S, as opposed to 'a-part-of-S', it can not be incorporated into the verb. Thus in example b) below, 'breast' can only be interpreted as part of the object argument, not as the incorporated equivalent of example 3-277 a).

3-277 a) tyi dangim-Ø -pawal-nyine
breast 3sg Poke-3sg-spear -FOC
SU Perf DO
Breasts have speared her now.
ie. She has developed breasts now
b) **dangim -Ø-tyi -pawal**  
3sgPoke-3sg-breast-spear  
SU Perf DO  
He speared her in the breast.  
(*Breasts have speared her)

Verbs involving the manipulation by a subject of his own bodyparts, are formed with 'detransitivised' auxiliaries (cf. 4.5.2). While verbs formed with 'detransitivised' auxiliaries are formally intransitive, being unable to cross-reference the undergoer bodypart with bound object pronouns, they do pattern with transitive verbs in having object-like arguments that can be included as freeform nominals. Compare formally intransitive 3-278 a) with transitive 3-278 b) below.

3-278 a) **diwen -lak de-firr**  
3sgMouthDtr-lick Bp-foot  
SU Pres cl  
(The dog) is licking its foot.

b) **nganam-nyi-baty de-firr**  
1sgFeet -2sg-hold Bp-foot  
SU Perf DO cl  
I trod on your foot.

While we have already seen that bodypart terms that are the objects of transitive verbs are eligible for incorporation into the verb, the same is true of bodypart terms that are the subjects (or parts of subjects) of 'detransitivised' verbs. Thus 3-279 a) and b) are the externally paraphrased versions of 3-278 a) and b).

3-279 a) **diwen -firr -lak**  
3sgMouthDtr-foot-lick  
SU Pres  
(The dog) is licking its foot.

b) **nganam-nyi-firr-baty**  
1sgFeet -2sg-foot-hold  
SU Perf DO  
I trod on your foot.

Further examples demonstrating how 'detransitivised' verbs allow for the syntactic incorporation of 'bodyparts-of subject' are set out in 3-280.
3-280 a) ngin -garri-fityi b) ngemen -nintyi-pal
1sgShoveDtrS-leg -roll
SU Pres
I'm crosslegged.

I bent at the knees.
(ie. kneel)

c) ngudem -dirr -fulirr d) ngudeny -syi -wul
1sgShoveDtrD-teeth-rub
SU Pres
I grind my teeth.
I turned (my nose)
for home.

e) ngemem -madi-baty
1sgHandsDtr -chest -hold
SU Pres
I'm holding myself by
the chest. (ie. arms
folded across chest)

Thirdly, verbs formed with the 'Say' auxiliary also allow for the
incorporation of bodyparts that are a part-of-subject. Recall (cf. 3.1.1) that
these verbs have inverted verbroot-auxiliary ordering. Bodypart terms
incorporated into these verbs are positioned after the auxiliary and are
therefore word-final unless followed by overt non-present tense markers.

3-281 a) dudu -meny -firr
swollen-3sgDo -foot
SU Perf
He had a swollen foot.
(he was swollen-footed)

b) papalak-mem -muy
drop -3sgDo-eye
redup SU Pres
She blinks her eyes (habitually).

c) tyip -ngiminy-tyeri
dark-1sgDo -ear
SU Perf
I forgot.

The type of strictly syntactic incorporation presented here shows different
characteristics to the incorporation in languages discussed by Mithun (1984).
Using Mohawk as an example, she argues that all predicates bearing
incorporated nouns are lexicalised, regardless of how productive the process
may be.
"NI may appear to be a syntactic process simply because of its tremendous productivity; the number of combinations that occur seems unlimited. However, speakers are keenly aware of the lexical status of all such combinations. They know not only which constructions are possible, but also which of these actually exist--i.e. which are lexicalised. They immediately recognise those which are not. Speakers immediately remember who uses a word not used by others, even when it is a perfectly transparent combination of two highly productive stems."

Having made this claim that speakers of incorporating languages remember all combinations of 'incorporated noun + verb' as a lexicalised unit, Mithun uses this as a basis to draw a distinction between noun incorporation and other truly syntactic processes. Speakers of non-incorporating languages, she argues, do not remember all possible combinations of verb and object.

Although any claims about the degree of lexicalisation of combinations of incorporated noun and verb are bound to be impressionistic, the examples like those in 3-275 a) - e) above suggest that in Ngan'gityemerri at least, bodypart incorporation can be a purely syntactic process. In fact Mithun indirectly acknowledges this possibility in the discrepancy between "constructions which are possible, and those that actually exist -i.e. which are lexicalised" (loc. cit.). In Ngan'gityemerri, bodypart-verb root combinations that 'exist' (i.e. are lexicalised) can be negatively tested for in terms of the criteria productivity and optionality. Likewise those combinations that do not 'exist', in the sense that they are not lexicalised, can be distinguished by their full syntactic productivity. There seems to be no real basis to say of these types, as Mithun does, that "If speakers use a new combination, they are creating a new word and are aware of the fact" (loc. cit.).

It should be pointed out that this distinction between syntactic and lexical incorporation in Ngan'gityemerri is purely based on the grammatical criteria of productivity and optionality. No attempt has been made to draw lines, based on the intuitions of native speakers, between those combinations that 'exist' and those which do not. My own experience of exploring the productiveness of bodypart incorporation with informants suggests that no such clearcut lines exist. The degree of productivity brought to the incorporation of bodyparts is a stylistic variable that some speakers exploit more than others. Combinations which are rejected outright as not 'existing', can always be found to 'exist' where a sufficiently imaginative mind can establish a plausible context. In fact it is the
exploitation of the more marginal 'non-existent' combinations that is widely held to be the mark of someone who is 'good with words'.

Variation in the perception of the degree of lexicalisation of some combinations would be anticipated if the incorporation of bodyparts is an evolving process. This is particularly true where, as Mithun notes, lexicalisation develops from noun + verb combinations that are, in cultural terms, especially nameworthy.

Lexical incorporation, on the other hand, differs from syntactic incorporation in not being productive. While there are many instances of the same verb root compounding lexically with different bodypart terms, as in 3-282, this is not to be confused with productiveness. Lexical incorporation is a compounding process that derives a new verb root from the combination of a bodypart and a verb root. (eg. Bodypart - Verb root 1 --> Verb root 2).

3-282 a) ngibem-tyeri-baty (*detyeri)
   1sgLIE -ear -hold
   SU Pres
   I'm listening.

   b) ngibem -syi -baty (*desyi)
   1sgLIE-nose-hold
   SU Pres
   I'm smelling (intrans).

Lexical incorporation also differs from syntactic incorporation in that bodyparts cannot be omitted from the verbal complex or appear as external nominals, as evidenced by the impermissible freeforms in 3-282 above.

The range of bodypart terms found in lexical compounds is significantly smaller than those which incorporate syntactically. Whereas any member of the bodypart noun class can be syntactically incorporated, it is only those major bodypart terms listed in Table 3-8 that can compound with verb roots to derive new verb roots.

What then of the grammatical relations allowed to hold between the bodypart and verb root members of a lexical compound? The majority of examples of lexically incorporated bodyparts fall within the general restrictions on predicate relations given above for syntactic incorporation, ie transitive objects and locatives, and intransitive subjects with certain auxiliaries. Other examples allow for a wider range of relations, including some disallowed for syntactic incorporation. Thus in 3-282 above we find bodyparts as part-of-S in verbs with stative intransitive auxiliaries.
Additionally we find lexically incorporated bodyparts being construed with the subjects of transitive verbs, as in 3-283 below.

3-283 nga -nyi-tyerr - pu -pe
1sgPoke-2sg-mouth-ask -Fut
SU Irr DO
I'm going to ask you.

In many examples though, the relationship between the elements of a lexical compound verb is compositional and implicit, and not amenable to description in terms of syntactic rules. Sapir makes similar observations on noun incorporation in American languages;

"it is often just as difficult, at least in some American languages, to draw the line between the objective and non-objective use of an incorporated noun as it is to determine the precise syntactic value of the qualifying member of a compound...In both cases the grammatical expression of a logical relation, in other words a syntactic process, is sacrificed to a compositional process in which the logical relation is only implied." (Sapir 1911:257)

3.5.3 Semantics of Incorporated Bodyparts

Incorporated bodyparts take on a semantic range that extends beyond their freeform usage. Thus we find that nguru - 'penis' comes to denote the genitals of both sexes, muy - 'eye' is extended to include the face, and ge - 'belly' covers the 'middle' of a body, not just the front, lower torso. Additionally, there is a preference for incorporating higher-level general terms over lower-level specific ones. Thus verbs involving activity at the 'elbow' or 'calf muscle', for instance, are more likely to incorporate 'arm' or 'leg', respectively, than the more specific bodypart. So the division of the body into parts, for the purpose of incorporation, is a broader, grosser division than it is for free forms. Of the 35 odd members of the bodypart noun class, any of which can theoretically be syntactically incorporated into the verb, a subset of 16 of these tend to function in this quasi-generic capacity, taking over the role of cross-referencing specific bodyparts once they are textually established. This subset of quasi-generic bodyparts, listed below in Table3-8, are termed 'major bodyparts' in this work.

Among these major bodyparts we further find evidence of the development of a classificatory system whereby certain major bodyparts compounded with certain verbroots, lose their independent semantic and syntactic qualities. Here they qualify the verb by classifying the arguments towards which the verb is directed, in terms of some qualitative functional or
physical feature of the bodypart. This can be seen particularly with mentyi - 'neck' and tyirri - 'navel'.

Specific and Extended Meanings of Major Bodypart Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>madi</td>
<td>chest</td>
<td>-front of body/underside/direction one faces /smoothed surface /concave shape/protected and contained</td>
</tr>
<tr>
<td>derri</td>
<td>back</td>
<td>-back of body/topside/exposed,raised surfaces</td>
</tr>
<tr>
<td>tyirri</td>
<td>navel</td>
<td>-bladder/things that rupture and leak</td>
</tr>
<tr>
<td>dirr</td>
<td>teeth</td>
<td>-edges</td>
</tr>
<tr>
<td>pi</td>
<td>head</td>
<td>-raised, rounded shapes</td>
</tr>
<tr>
<td>mentyi</td>
<td>neck</td>
<td>-tracks and pathways</td>
</tr>
<tr>
<td>syi</td>
<td>nose</td>
<td>-parts of things that jut out</td>
</tr>
<tr>
<td>nguru/nguri(K)</td>
<td>penis</td>
<td>-male and female genitals/wind &amp; rain?</td>
</tr>
<tr>
<td>panmi</td>
<td>crotch</td>
<td>-fork of tree</td>
</tr>
<tr>
<td>ba</td>
<td>arm</td>
<td>-creeks and branches/nurturing and directing</td>
</tr>
<tr>
<td>muy</td>
<td>eye</td>
<td>-face/orifice/spot</td>
</tr>
<tr>
<td>purr</td>
<td>bottom</td>
<td>-tail end/finish</td>
</tr>
<tr>
<td>tyerr</td>
<td>mouth</td>
<td>-end face of a cylinder/openable things /points of entry/speech</td>
</tr>
<tr>
<td>ge</td>
<td>belly</td>
<td>-guts/middle/seat of emotions</td>
</tr>
<tr>
<td>firr</td>
<td>foot</td>
<td>-base of tall, upright things</td>
</tr>
<tr>
<td>minmi</td>
<td>elbow</td>
<td>-turn-offs</td>
</tr>
</tbody>
</table>

3.5.3.1 madi chest

In its most literal form madi denotes the surface of the body over the front of the ribcage, between the narrow mentyi 'neck' and the soft dege 'belly'. This literal bodypart sense is reflected in the nominal lexicon in examples such as,

3-284 da-madi - chest
pi-madi-mi - sternum
madi-wanggi - chest cicatrices

and incorporated into verbs as in 3-285

3-285 a) ngemem -madi-baty
1sgHands-chest-hold
SU Pres
I fold my arms across my chest.
(lit: I chest-hold myself

3-285 b) wurrbum-ngi-madi
3plBash -1sg-chest
SU Perf DO
They cut chest cicatrices on me.
Further, madi denotes the underside or frontside expanses of the body;

3-286  
- madi  - sole of foot

foot-chest

de-tyerr -madi - lower jaw
Bp-mouth-chest

and by extension comes to represent the orientation of a body, the way that it is facing;

3-287  

a)  
- madi wiben

up - 3sgDo-chest 3sgLie  
S U  P e r f S U  P e r f

He lay facing upwards (ie. on his back).

b)  
aya, minde ngudum-madi-fili mudiga,  

Hey! neg 1sgShove-chest-roll car  
S U  P e r f

Hey look! I didn't roll the car over,  
mudiga wudeny -madi-fili-ngidde  
car 3sgShoveDtrD-chest-roll -1sg  
S U  P e r f I M P L

it was the car that just rolled over on me.

c)  
mudiga Palumba nem ngumbudum-madi-gat  

truck 3sg 1plincShove -chest-meet  
P R O  S U  P e r f

We met the Palumba truck head on.

From the sense of flat expanses and the underside of bodies, madi comes to be associated with clear expanses of ground, and smooth unblemished surfaces.

3-288  

a)  
- madi-fuy ngurrbun  
3plSlash-chest-sweep ceremony  
S U  P e r f ground

They swept the ceremony ground.

b)  
weri ngudumbun-madi-syusu  
hole 1sgShove -chest-restore  
S U  P r e s

I'm filling in/smoothing over the hole.

c)  
fepi -ninggi dangim-madi-syarr  
stone-INSTR 3sgPoke -chest-scrape  
S U  P r e s

He's sanding/smoothing it with a stone.
From the front/underside of our prototypical body, madi comes to be associated with the hollow, enclosed, containing and by further extension, protective qualities of any entity that is thought of as being concave. Thus madi incorporates into verbs involving entry or insertion into containers.

3-289  

a) *ngaganiny-madi-wap mudiga*  
   1sgGo -chest-sit car  
   SU Perf  
   I climbed into the car.

b) *ngambaty yenim-madi-pap -nyine*  
   tide 3sgGo -chest-climb-now  
   SU Pres  
   The tide is coming up now.  
   (within the containing shape created by the two banks)

c) *musyulng yana -ngiti-madi-kuli mudiga*  
   swag 2sgFeet-1sg -chest-throw car  
   SU Irr IO  
   Throw my swag into the car for me!

d) *ningini nga -madi-bang-pe*  
   coolamon 1sgPoke-chest-poke-Fut  
   SU Irr  
   I'll hollow out this coolamon.

e) *yana -madi-purity-merrendi dirrkuru*  
   2sgFeet-chest-slip -LEST riverbank  
   SU Irr  
   ...lest you slip down the riverbank.

In this increasingly metaphorical usage it can be seen to compliment the extended meanings of derri 'back', which by way of contrast is associated with the top, exposed, humped shape of an entity that is thought of as being convex. See 3.5.3.2.

3.5.3.2  

**derri** back  
Firstly derri incorporates in its literal form to denote the 'back' as a simple bodypart.

3-290  

*ngemeny -derri-pal*  
1sgHandsDtr-back -fold  
SU Perf  
I bend at the back (ie. forwards from my waist).
From the 'back' of a prototypical body, *derri* comes to be incorporated in verbs in which take place on, or in relation to, a raised flat surface.

3-291  
**freezer wirribem-ngan-derri**  
3sg Stand -LOC -back  
SU Pres  
The freezer is standing up (on a platform).

This raised 'hump' is somehow bare and exposed, complementary to the way in which *madi* 'chest' conveys the sense of enclosed protectedness. In the following example this sense of both *madi* and *derri* are contrasted in the verb meaning 'to clear ground'.

3-292 a)  
**wurrbu -madi-pul -pe wangga-ne**  
3pl Bash-chest-clear-Fut dance -PURP  
SU Irr style  
They're going to clear an area for dancing.  
(ie. create a designated space with a specific boundary to be a focal point for human activity)

b)  
**miyi-ne wurrbu-derri-pul -pe D9-ninggi**  
grain-PURP 3pl Bash-back-clear-Fut -INSTR  
SU Irr  
They'll clear (this paddock) with a D-9 (caterpillar) for (planting) sorghum.  
(ie. strip away the covering vegetation and expose the soil for planting)

The dominant geographical features of Ngan'giwumirri country are mesa formations - flat topped elongated ridges. As classic examples of flat, raised surfaces, these are also known as *derri*. Verbs involving the traversing or climbing of ridges incorporate *derri*, as in the following examples.

3-293 a)  
**nagan -derri-pappup**  
3sg Feet-back -climb  
SU Perf redup  
He's climbed up onto the ridge.

b)  
**yemi -derri-birr -pe**  
2sg Hands-back -travel-Fut  
SU Irr  
Travel along the top of the ridge!

General verbs of concealment such as 'hiding', 'finding' and 'covering' also incorporate *derri*. This seems to be based both on the 'exposure'
component, and on the 'back' as the external topside of a body that remains visible when one is huddled to escape detection.

3-294  a)  kide  yubum -derri-du
   where  2sgBash-back -touch
   SU Perf
   Where'd you find it?

   b)  bengim -ne -derri-lit  blanket
   3sgBash-3sg-back-cover
   SU Perf  IO
   He covered himself with a blanket.

   c)  ngeriny -derri
   1sgHands-back
   SU Perf
   I hid it.

3.5.3.3  tyirri  navel/bladder
Although tyirri can incorporate in its literal sense;

3-295  wur-tyatyamurr yemi  -tyirri -pul -tye
   F  -newborn  2sgHands-navel-wash-Past
   cl  SU Irr
   You should have washed her navel (properly) when she was just newly born.

it is primarily incorporated as a lexicalised compound with the verb root -tu 'break', and it is in the form of this derived verb root that it achieves a highly classificatory function. 'tyirri-tu' denotes the breaking of objects that are conceived of as being 'bladder-like' in that they are containers that because they are gassy, or brittle, or under internal pressure, when ruptured tend to burst plosively and leak their contents. The type of objects classified in this way include - intestines, pimples, uncooked eggs, car tyres, sausages, footballs and balloons or inflated bladders used as such, bottles and waterbags.

3-296  a)  de-yeddirr  yeniny -tyirri -tu -ngidde
   Bp-hip  3sgGo  -navel-break-1sg
   cl  SU Perf  IMPL
   The car tyre has punctured on me.

   b)  wamanggal  wunni -tyirri-tu -tye
   fem. Agile  3plSlash-navel-break-Past
   wallaby  SU Plmp
   They were gutting wallabies.
c) yakay! kagu -yaga wannim-tyirri-tu
lookout! animal-DEM 3plGo -navel-break
generic SU Pres
Lookout! the sausages are bursting!

d) amurru wudumbun-tyirri-tu
egg 3sgShove -navel-break
SU Pres
She's just broken the eggs.

e) finy ngeme -tyirri-tutu -tye
pimple 1sgHands-navel-touch-Past
SU Pimp
I was squeezing my pimples.

3.5.3.4 dirr teeth
Dirr incorporates literally as 'teeth'.

3-297 wudeni -dirr -fuliirr
3sgShoveDtrD-teeth-rub
SU Pimp
He was grinding his teeth.

and further implies that actions are performed on the long, thin edges of
things, such as riverbanks and the edges of essentially two-dimensional
things like knives, planks of wood, iron/bark sheeting etc..

3-298 a) marrimarri kinyi yudi -ngiti-dirr -fuliirr
knife this 2sg-Shove-1sg -teeth-rub
SU Irr IO
Sharpen this knife for me!

b) dideninggi nganggininy-dirr -tyerr
opposite side lplincGo -teeth-stop
SU Perf
We pulled up on the opposite bank.

3.5.3.5 pi head
Pi incorporates literally to denote the 'head', excluding the face;

3-299 a) a - da-wayirr bengim-pi -baty
A-Bp-forehead 3sgBash-head-tie
cl cl SU Perf
He tied a headband around his head.
b) **deminy -ngi-pi -yiri**
3sgHands-1sg -head-numb
SU Pres DO
It made me ashamed.
(lit: it head-numbed me)

but including the hair.

3-300 **ngubu -nyi-pi -ket-pe wusye**
1sgBash-2sg-head-cut-Fut hair
SU Irr DO
I'll cut your hair.

Incorporated pi is extended to denote the 'head-like' ends of long, thin, upright things;

3-301 **ngerrbe -pi -dundum-tye nel**
1plexBash-head-bury -Past nail
SU Plmp redup
We were hammering in nails.

and rounded and raised (parts of) objects generally.

3-302 a) **angantyamu weme -pi -dudu-tye -yedi bude-ne**
bush turkey 3sgHands-head-touch-Past-3sgGo nest-PURP
SU Plmp redup SU Plmp
The bush turkey was heaping up (a mound) for a nest.

b) **yerr-da-garri-werre yeniny-pi -wap mudiga**
Tr -Bp-leg -ASSOC 3sgGo -head-sit car
cl cl SU Perf
He sat up on top of the cabin of the car with a rifle.

c) **peke bafun yemi -ngiti-pi -lali yetyerrawu-ne**
tobacco ash 2sgHands-1sg -head-round chewing-PURP
SU Irr IO tobacco
Roll some tobacco and ash into a chewing ball for me.

3.5.3.6 **mentyi neck**
Mentyi incorporates literally;

3-303 **eferri deme -mentyi-baty -pagu -tye -yedi**
bluetongue 3sgHands-neck -hold-HITH -Past-3sgGo
lizard SU Plmp SU Plmp
He was coming up carrying a bluetongue by the neck.
and further acts as a classifier for verbs of movement or activity along tracks. This classificatory usage seems to employ the notion of intersection, i.e. crossing pathways, cutting a track through a ridge, waiting for someone (being in a place where you anticipate the intersection of your paths) etc.

3-304 a) ngambani-mentyi-fel -nime-pe, pikirri!
1plincGo -neck -bounce-pl -Fut quickly
SU Irr SU
Quickly! let's cross the road.

b) ngarrini-mbi-mentyi-tyerr-pe ngan-kagu
1plexGo-2sg-neck -stop -Fut LOC -animal
SU Irr IO =wait generic
We'll wait for you, where that

a-nerrerr dangim-mentyi-ket
A-chicken 3sgPoke-neck -cut
cl hawk SU Perf
chickenhawk cut a track (through the ridge).

c) mumba Port Keats-ne nganggininy-mentyi-tyerr
track -PURP 1plincGo -neck -stop
SU Perf
We turned off onto the Port Keats' road.

d) yana -mentyi-baty mumba
2sgFeet-neck -hold track
SU Irr
Follow the track!

3.5.3.7 syi nose
Syi incorporates literally;

3-305 a) wudem -syi -dudu-dim
3sgShoveDtrD-nose-touch-3sgSit
SU Pres SU Pres
She's picking her nose.

b) yibem -syi -baty?
2sgLie-nose-hold
SU Pres
Do you smell it?

and, in a lexical compound with the verb root -ket 'cut', further denotes the parts of things that protrude, particularly with regard to the necessity to
move around them. This sense of syi appears to be an extension of the physical property of a nose as 'jutting out' from a face.

3-306 a) mudiga ngundum -syi -ket
   car 1dlinec/Slash-nose-cut
   SU Perf
   We went around the end of the car.

b) fepi wunu wumbun-syi -ket-nyine
   hill that 3sgSlash -nose-cut -now
   SU Pres
   He's just gone around the point of that hill now.

In 3-306 a) syi does not necessarily imply the front end of a car, either end being classifiable as a 'nose'. In other verbs entailing activity at the 'back end' of things we find purr - 'bottom' syntactically incorporated to convey the sense of this location.

3-307 ngaganim-purr-wap mudiga
   1sgGo -bum-sit car
   SU Pres
   I'm sitting up on the tailgate of the car.

Here however '-syi-ket' is a lexical compound implying 'movement around the end of things that jut out' and is not amenable to bodypart substitution in any productive manner.

3.5.3.8 nguru/nguri(K) penis
   Nguru incorporates into verbs as a literal bodypart;

3-308 a) demeni -nguru-walal -tye
   3sgHandsDtr-penis -shake-Past
   SU P1mp
   He was masturbating.

b) demeni -nguru-dudu-tye
   3sgHandsDtr-penis -touch-Past
   SU P1mp redup
   She was masturbating.

c) kukuk nga -nyi-nguru-waty ambirri
   wait! 1sgPoke-2sg -penis -consume first
   SU Irr DO
   Hang on!, I'm going to fuck you first.
though as 3-308 b) demonstrates, as an incorporated form its semantic range is widened to include the sexual organs of both sexes.

Nguru also occurs in a lexical compound with the verb root ket - 'cut' to denote the sudden cessation of the meteorological features wind and rain.

3-309 a) marrawuk wum -nguru-ket-nyine
dry season 3sgSlash-penis -cut -FOC
wind SU Perf
The wind has died now.

b) kuru bem -nguru-ket-nyine
rain 3sgBash-penis -cut -FOC
SU Perf
The rain has stopped now.

3.5.3.9 panmi crotch

Panmi incorporates literally as the 'fork' between the back or lower limbs, and is extended to cover other 'fork-like' places, such as the junction between the branches and trunk of a tree.

3-310 a) yemi -panmi-ta!
2sgHands-fork -open
SU Irr
Break (the goose's crotch) open.
(to prepare it for roasting)

b) yerr-fini ya -ngiti-fi -panmi-tyat
Tr-blood 2sgPoke-lsg -Mp-fork -place
cl wood SU Irr IO
Leave it in the fork of the bloodwood tree for me!

In contrast to nguru, the incorporation of panmi provides for a polite, euphemistic way to refer to activity located at the genitals, as in 3-11.

3-311 a) ngudumbun-panmi-tu ngilmil
1sgShove -fork -touch semen
SU Perf
I ejaculated inside her.

b) bengim -ngi -panmi-baty
3sgBash-1sg -fork -kick
SU Perf DO
He kicked me in the crotch.
3.5.3.10  ba arm

Ba incorporates literally as a bodypart and is extended to cover tree branches and creeks - ie. 'long thin things that extend off something bigger'. This usage is also reflected within the nominal lexicon, as in 3-312 b) below.

3-312 a)  afungi dangim-angi-ba -dap
mosquito 3sgPoke -1sg -arm-spear
SU Pres DO
A mozi has bitten me on the arm.

b)  ba -wediyi nganggininy-ba -fel
arm-little other 1plincGo -arm-jump
SU Perf
We crossed another little creek.

c)  mimenem ngerrminy -ba -ket
billygoat 1plexHands-arm-cut
plum SU Perf
We picked plums from the branches.

Ba also plays a classificatory role in incorporating into verbs concerned with directing people, particularly in a nurturing, caring sense. The notions of responsibility and concern are strongly suggested here, most examples involving mature adults directing children or those frail through age or illness.

3-313 a)  wurruke kinyi wuddung-ngerr -ba -tal
3dl this 3plShove -dl /1sg-arm-raise
PRO SU Perf SU/DO
These two people here (not my parents) raised me.

b)  falmi yenim-ba -kurrr -nyine
woman 3sgGo -arm-acquire-now
SU Pres
He's taken a wife now.

c)  Tawun-nimbi ngumu -ba -wa -pe
Darwin-SOURCE 1sgSnatch-arm-pick-Fut
SU Irr up
I'll fetch her from Darwin.

3.5.3.11  tyerr mouth/lips

Tyerr incorporates literally as a bodypart;

3-314  dangim-ngi-tyerr -da dafi
3sgPoke-1sg -mouth-itch 'cheeky'
SU Pres DO
It's burning my mouth.
and is extended to denote the parts of things that are 'mouth-like', in that;

1) they resemble a mouth in being the circular face of the flat end of a cylinder (cross-section through bamboo, tip of a cigarette etc.);

3-315 a) yawul ngayi dangim-ngiti-fi -tyerr -pek
   spear 1sg   3sgPoke-1sg -Mp-mouth-drip
   PRO   SU Perf   IO
   He rejoined my (broken) spear for me.

b) yine -ngiti-tyerr -ket-pagu
   2sgHeat-1sg -mouth-cut -HITH
   SU Irr   IO
   Light a cigarette for me!

2) they can open or be opened (doors, car bonnets, drawers, lids of containers, openings of bags);

3-316 a) mudiga yu -tyerr -dum de-syi
   car 2sgSlash-mouth-bury BP-nose
   SU Irr   cl
   Shut the bonnet of the car!

b) wayiki ngayi deminy -nin -tyerr -ta
   son 1sg 2sgHands-1plinc-mouth-open
   PRO   SU Irr   IO
   My son opened (the gate) for us.

c) mengginy -tyerr -wurr fi -ninggi
   3sgSnatch-mouth-enter string-INSTR
   SU   Perf
   He tied up the mouth of the bag with string.

Note that in example 3-316 a) above, the bonnet of the car is its 'nose' (ie. the front part that juts out), but that this 'nose' is treated as a 'mouth' in its functional ability to be 'opened up'.

And 3) they can be an opening or point of access (entrance or beginning point of a track, as at a turn-off).

3-317 a) yariny -tyerr + palat -ngidde
   2sgPoke-mouth-pass -1sg
   SU   Perf    IMPL
   You went past the turn-off on me.
Needless to say, some examples will fit more than one of these categories. For instance, *tyerr* in 3-316 c) above could equally well be 'the part of the bag that is openable' or 'the point of entry into the bag'. Furthermore I have some examples which I am unsure how to interpret. In the following example, the bog may be 'mouth-like' in that it is a moist spot with a defined lip-like rim, or it may hold the car fast, as one holds something in one's mouth.

3-318  
\[ \text{mudiga ngudumbun-tyerr + ket ngityirr abarri} \]
\[ \text{car 1sgShove -mouth-cut ground bog} \]
\[ \text{SU Perf} \]
I've bogged the car.

*Tyerr* also incorporates into some verbs involving speech, as in the 3-319.

3-319  
3-319 a)  
\[ \text{ngudupun-tyerr -palak} \]
\[ \text{NgK 1sgShove -mouth-drop} \]
\[ \text{SU Perf} \]
I prevented him from talking.

b)  
\[ \text{ngunyineninggi nguddu -nyi-tyerr -pe ngurru-ka} \]
\[ \text{tomorrow 1plexShove-2sg-mouth-Fut so -eh!} \]
\[ \text{SU Irr DO} \]
So, tomorrow we'll be farewelling you then, eh!

c)  
\[ \text{minbe-tye we -ngi-tyerr -gat} \]
\[ \text{Neg -Past 3sgMouth-1sg-mouth-answer} \]
\[ \text{SU Irr DO} \]
He wouldn't answer me.

d)  
\[ \text{ngumbun-tyerr - fa} \]
\[ \text{1sgSlash -mouth-scream} \]
\[ \text{SU Perf} \]
I made him scream (by hitting him).

3.5.3.12  
\[ \text{muy eye} \]

*Muy*, which has the reduced incorporated form *mi*, denotes the literal bodypart.

3-320  
\[ \text{dingin -ngi-mi-wul} \]
\[ \text{3sgMouth-1sg-eye-water} \]
\[ \text{SU Pres DO} \]
It makes my eye(s) water.
The possible retention of the literal lexical semantics of mi 'eye' in its function as a valence increasing prefix has been noted in 3.3.1.2.

3.5.3.13 purr bum
Purr incorporates literally as a bodypart, and is extended to cover the rear 'bum-like' end of things such as cars.

3-321 yenim-purr-wap mudiga
3sgGo-bum-sit car
SU Pres
He's sitting up on the tailgate of the car.

Purr has a minor classificatory role in forming a lexical compound verb root with the verb root -ket 'cut' to denote cessation of the type of activity that is implied by the auxiliary ('mouth activity' and 'hands activity' respectively in the examples below).

3-322 a) tyerrakul wakay ngem -purr+ket-nyine
talking finished 1sgMouth-bum -cut-FOC
SU Perf
That's it! I've finished talking now.

b) ngerim -purr+ket
1sgHands-bum -cut
SU Pres
I've finished making it.

3.5.3.14 ge belly
Ge incorporates literally as a bodypart, covering both the external surface of the lower front torso, and the 'guts' inside. It differs from tyirri 'navel', which was also given as a classifier for intestines in 3.5.3.3, in that the incorporation of tyirri necessarily implies the rupturing of whatever it classifies. While ge can incorporate into verbs involving the manipulation or extraction of intestines, no implication of rupture or bursting is conveyed.

3-323 ngisyeny-ge -wurr a-ngikin
1sgPull -belly-pull A-shit
SU Perf cl
I pulled its intestines out.

Ngan'giwumirri and Ngan'gikurunggurr people find their bellies to be the seat of their emotions. Ge is consequently incorporated into verbs concerned with emotional states or processes.
3-324 a) bengim -ngi-ge - pek
3sgBash-1sg-belly - drip
SU Pres DO
It makes me angry.

b) yebem -ngi-ge - dum
2sgBash-1sg-belly-bury
SU Pres DO
You make me happy.

c) ngara -ne-fi -pal -pe, nge -ge -kubuk-pe
1sgPokeDtr-3sg-Mp-return-Fut 1sgMouth-belly-soak -Fut
SU Irr IO SU Irr
I'm going back to him, to pacify him.

3.5.3.15 firr foot

Firr incorporates as a literal bodypart and is extended to include the base of any 'tall, upright thing'. 'Tall, upright things' (i.e. those which select the 'stand' stative auxiliary in its copula function (cf. 4.4.1.1)), are essentially things whose vertical dimension is perceived to exceed their horizontal dimension (trees/houses etc).

3-325 ya -ngiti-firr-tyat -pe mawuny
2sgPoke-1sg -foot-place-Fut ironwood
SU Irr IO tree
Leave it at the foot of the ironwood tree for me.

3.5.3.16 minmi elbow

Minmi is a minor member of the bodypart noun class, eg. de-minmi -'elbow' and otherwise occurs within the nominal lexicon as an element in compounds, e.g. minmi-pi (elbow-head) 'funnybone'. Minmi is never found incorporated as an object or locative verbal argument. Normally verbs entailing activity at the 'elbow' would incorporate ba - 'arm' as a major generic bodypart. Minmi is incorporated into the verb only as a lexical compound with the verb root ket - 'cut'. The verb formed with the 'Go' auxiliary and the derived verb root -minmi-ket means 'to turn off a track at (roughly) a ninety degree angle' (envisaged as the crook of one's arm?).

3-326 ngambani-minmi-ket-pe kinyi
1plincGo -elbow -cut -Fut here
SU Irr
Let's turn off down this way.
Finally to give some idea of the textual frequency of bodypart incorporation, the example below is a short excerpt from a text by Robert Daly describing a trip we had made the previous day through his country. In this sample seven consecutive verbs contain incorporated bodyparts. While this particular excerpt has been specifically selected for its high density of bodyparts, and thus should be regarded as a higher than normal frequency of incorporation, it does provide a good example of the pervasive and productive role that this process plays in Ngan'gityemerri. The high rate of incorporation in this example results largely from the genre of the text itself. For with such associated and classificatory meanings of bodyparts as madi/derri - 'hollows/humps', ba - 'creeks', dirr - 'riverbanks', mentyi - 'tracks', minmi - 'turn-offs', and tyerr - 'gates/entrances', it is in description of travel across countryside that bodypart incorporation reaches its height as a tool for tracking one's progress through and across these kind of landscape features.

3-327 wa-yiki ngayi deminy -nin -tyerr -ta
M-son 1sg 3sg Hands - 1pl incmouth-open
cl PRO SU Perf IO
My son opened that gate for us,

wuny -tyerr -dum gate nyinnin,
3sg Slash-mouth-bury ANA
SU Perf
then shut it (after us).

nganggininy-ba -fel, nganggininy-madi-pap,
1pl inc Go - arm-bounce 1pl inc Go - chest -climb
SU Perf SU Perf
We crossed a creek, drove up the bank,

mumba Port Keats-ne nganggininy-mentyi-tyerr,
road -PURP 1pl inc Go - neck - stop
SU Perf
and pulled up onto the Port Keats' road.

ba -wedi ye yi nganggininy-ba -fel,
arm-little other 1pl inc Go - arm-bounce
SU Perf
We crossed another little creek,

kinyi-pefi ngambani-minmi-ket-pe, ngiminy-bi,
this - THITH Id inc Go - elbow - cut - Fut 1sg Say - 2sg
SU I rr SU Perf IO
and I told you to turn off this way.
Chapter 4

Auxiliary Verb Semantics

4.1 Auxiliary Function within the Verb

As has been outlined in 3.1, the auxiliary is an obligatory constituent of the Ngan'gityemerri verb. Typically, it combines with a complex verb stem (CVS) in forming a 'complex verb'. Those auxiliaries that can only occur in combination with CVSs are thus referred to as 'complex auxiliaries'. Some auxiliaries, however, in addition to their combination with CVSs, can function independently as full 'simple verbs', and these are referred to as 'simple auxiliaries'. Compare the complex auxiliary 'hands' in 4-1 with the simple auxiliary 'sit', in its simple and complex functions, in 4-2 a) and b) respectively.

4-1  ngeriny -wurity
     1sgHands-fix
     SU Perf
     I fixed it.

4-2  a) ngini -tye
     1sgSit -Past
     SU Pimp
     I was sitting.

     b) ngini -lalirr-tye
     1sgSit -eat -Past
     SU Pimp
     I was (sitting) eating.

As is suggested by the 'simple' function of the auxiliary in 4-2 a) above, and as is equally true of complex auxiliaries, the Ngan'gityemerri auxiliary has a specific semantic component which it contributes to the overall meaning of the verb. In this respect the Ngan'gityemerri auxiliary, indeed the auxiliary in most if not all the Daly languages, differs from the semantically empty verbal unit sometimes described as an 'auxiliary' in other Australian languages, that merely plays host to bound pronominal and tense morphemes1. It is this semantic character of the auxiliary that is

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1In 3.2 we examined the four-part structure of the auxiliary, noting the problems in segmentation that arose, particularly at the juncture between the bound subject pronoun and the auxiliary root. There we concluded that treating the whole 'bound subject + auxiliary root' as a minimal contrastive unit was more felicitous for synchronic analysis. Likewise
to be examined in this section. I have adopted the practice of allocating each auxiliary a name; e.g. 'sit', 'see', 'poke' etc, throughout the discussion and employ these names in the example glosses in preference to simply allocating each auxiliary a number.

In terms of formal contrastive paradigms I can identify 31 auxiliary verbs in contemporary Ngan'gityemerri, distinguishable on the basis of unique subject-AVR (auxiliary verb root) sequences. The paradigms of these sequences have been listed in appendices A and B, and readers will find reference to these useful in following this section. Not all auxiliary subject-AVR sequences are unique across the full person/number/tense paradigm. A number of auxiliaries partially overlap in sharing some identical subject-AVR sequences, though no auxiliaries show full convergence of form. For instance, 'mouth' and 'mouth Dtr (detransitive)' share irrealis dual exclusive, and past imperfective non-singular exclusive forms, and the 'sit' present plural exclusive forms are identical with both the 'stand' irrealis singular forms and the 'shoveDtrS (stative)' present plural exclusive forms. In addition there are several auxiliaries that appear to lack any obvious semantic connection with each other, but are formally quite similar. 'Sit' and 'mouthDtr' for instance, differ primarily in the final vowel, 'sit' having /i/ and 'mouthDtr' having /e/. 'Hands' and 'poke', are likewise primarily differentiated by a single vowel. These are a few examples only; further similarities and correspondences will be evident from examination of the appendices.

All of these 31 auxiliaries combine with verb stems to form complex verbs. 10 of the 31 are 'simple auxiliaries', that is, in addition to their verb stem combination, they can stand independently, without a verb stem, functioning as a simple verb. The remaining 21 auxiliaries can not stand independently and obligatorily require the presence of a verb stem. These 21 are referred to as 'complex auxiliaries'. It should be understood then that

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2Although not very likely, it is not impossible that further work will reveal additional auxiliary verbs. Increasing fieldwork in recent years has resulted in the upgrading of auxiliary counts in Marrithiyel (Green 1989) and Gamu/Matngeli (Harvey: to appear). The actual numbers of auxiliaries in all Daly languages are probably considerably higher than the figures given in Tryon (1974). The current figure of 31 for Ngan'gwiwumirri and Ngan'gikurunggurr is also an increase from the figure of 26 given for Ngan'gikurunggurr in Reid (1982). The potential for auxiliaries to be missed by researchers stems primarily from the occurrence of low frequency auxiliaries that may only combine with a single CVS. Any residual auxiliaries in Ngan'gityemerri would almost certainly be of this type.
'simple auxiliaries' share the capacity of 'complex auxiliaries' to combine with verb stems, and can, in addition, stand on their own.

Ngan'gityemerri auxiliaries then, constitute 31 unique sets of semantically based verbal inflectional categories, with which verb stems combine. The combination of auxiliaries and verb stems is, in the main, a productive process. The extent of this productivity is an issue that we will return to throughout this section. The point to be made here though, is that auxiliaries do not form 31 rigid, mutually exclusive verb classes to which verb stems belong. This view of auxiliaries, as found for instance in Tryon (1974), implies some sort of logical linkage between the semantics of each auxiliary and the semantic properties inherent in those CVSs which select them. However it is not the case that each CVS selects a single auxiliary, or can be said to belong to a single auxiliary class. The productivity of auxiliary - CVS combination varies widely. While some auxiliaries are in fact only found in combination with a single CVS, others select a wide number of CVSs. It will become apparent from the discussion of each auxiliary later in this section, that independent semantic characteristics can be attributed to both auxiliaries and CVSs, and that the productive manipulation of these characteristics supports the view that both auxiliaries and CVSs are separate entities, each maintaining its own semantic integrity and having some sort of psychological reality in the minds of Ngan'gityemerri speakers.

In order to present the Ngan'gityemerri auxiliary system in the clearest possible way, we can divide the 31 auxiliaries up in terms of several criteria. We have already divided the 10 simple auxiliaries from the 21 complex auxiliaries. They can be further divided in terms of whether they are predominantly transitive or intransitive, and in terms of the degree of productivity they bring to CVS combination. As a preliminary to this investigation of the semantics of the Ngan'gityemerri auxiliaries, these two issues, the transitivity of both auxiliary verbs and CVSs, and their degree of productivity, are addressed in the following two subsections.

4.2 Transitivity

In addition to the semantic characteristics attributable to auxiliaries and CVSs, both can be assigned associated transitivity values. That is, on the basis of the majority of verbs formed with each auxiliary, and the number of core arguments those verbs are able to cross-reference, auxiliaries and particular CVSs can be labelled essentially 'transitive' or essentially 'intransitive'. These values, that are independently attributable to auxiliaries and CVSs, are not formally marked on them in any way, nor do they absolutely correspond with the transitivity of a given verb that may be
formed with them. Throughout this discussion I refer to the transitivity values of auxiliaries and CVSs as either 'transitive' or 'intransitive' (using quotation marks), whereas I refer to verbal transitivity, that is, the transitivity value that can be assigned to a full complex verb, as either transitive or intransitive (without quotation marks).

4.2.1 Auxiliary Transitivity

Among the 'intransitive' auxiliaries we find the major posture/motion auxiliaries 'sit', 'lie', 'stand', 'go' and 'go*', and the minor auxiliaries 'say', 'arrive' and 'hang'. These eight auxiliaries are always intransitive in their simple verb function, and typically form intransitive verbs in their complex function. This is demonstrated with the 'sit' and 'go' auxiliaries in 4-3 and 4-4 below.

<table>
<thead>
<tr>
<th>4-3</th>
<th>a) ngini-tye</th>
<th>b) ngini-lalirr-tye</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1sgSit-Past</td>
<td>1sgSit-eat -Past</td>
</tr>
<tr>
<td></td>
<td>SU PImp</td>
<td>SU PImp</td>
</tr>
<tr>
<td></td>
<td>I was sitting.</td>
<td>I was eating.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4-4</th>
<th>a) yeniny</th>
<th>b) yeniny-fili</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3sgGo</td>
<td>3sgGo-roll</td>
</tr>
<tr>
<td></td>
<td>SU Perf</td>
<td>SU Perf</td>
</tr>
<tr>
<td></td>
<td>He went.</td>
<td>He wandered off.</td>
</tr>
</tbody>
</table>

Among the 'transitive' auxiliaries we find the two simple auxiliaries 'see' and 'take', the major complex instrumental auxiliaries 'hands', 'feet', 'mouth', 'poke', 'slash', 'bash', 'shove', and 'heat', and the minor complex auxiliaries 'suck', 'pull' and 'snatch'.

'See' and 'take' are always transitive in both their simple and complex functions.

<table>
<thead>
<tr>
<th>4-5</th>
<th>a) nginyirri-nyi</th>
<th>b) nginyirri-nyi-kerrety</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1sgSee -2sg</td>
<td>1sgSee -2sg -grasp</td>
</tr>
<tr>
<td></td>
<td>SU Perf DO</td>
<td>SU Perf DO</td>
</tr>
<tr>
<td></td>
<td>I saw you.</td>
<td>I watched over you.</td>
</tr>
</tbody>
</table>

The complex instrumental auxiliaries typically form transitive verbs. This is demonstrated with 'hands' and 'shove' below.
4-6 deminy -ngi-tip
3sgHands-1sg-grab
SU Perf  DO
He grabbed me.

4-7 wudum -ngi-pap
3sgShove-1sg-climb
SU Perf  DO
He pushed me up.

However it must be stressed that the associated transitivity value that can be attributed to auxiliaries is ultimately not a consistent indicator of verbal transitivity. There are, for instance, 'intransitive' auxiliaries selected in clearly transitive verbs that cross-reference direct object arguments. Consider the transitive verbs in the examples below which employ the 'intransitive' auxiliaries 'go' and 'sit', respectively.

4-8 ngani -nyi-mi -wap-pe
1sgGo-2sg-Val-sit -Fut
SU Irr DO
I'm going to camp with you.

4-9 ngi -nyi-ngan-wantyirr-pe
1sgSit-2sg-LOC -armpit -Fut
SU Irr DO REL
I'll sit down at your side.

Conversely, 'transitive' auxiliaries are found in single-argument intransitive verbs. The intransitive verbs in 4-10 and 4-11 below are formulated with the 'hands' and 'feet' auxiliaries respectively.

4-10 deminy -pat, yirrini -pagu -tye fepi minbadi
3sgHands-arise 3sgGo*-HITH-Past hill big
SU Perf  SU Pimp
He arose and came here to Peppimenarti.

4-11 awa-purrpurrk-nyine wannam-felfil
Hg -littl'uns -FOC 3plFeet -bounce
cl  SU Perf  redup
All the kids raced out then.

Before returning to the relationship between auxiliary transitivity and verbal transitivity, let's look at the CVS.

4.2.2 CVS Transitivity

Complex verb stems in Ngan'gityemerri fall broadly into two groups which, as for auxiliaries, can be labelled transitive and intransitive.
Describing similar phenomena in Marrithiyel verbs, Green (1989) uses the terms 'neutral' and 'transitive' as labels for these two CVS classes. I have followed his practice in using these same terms here.

The neutral class consists of both monovalent CVS and bivalent CVS that have a low transitivity value. Among the monovalent CVSs we find -wurr 'enter', -pap 'climb up', gulirr 'spin', -tyurr 'bathe', -syirr 'sweat', and -purity 'hide'. The combination of these monovalent CVSs with 'intransitive' auxiliaries, resulting in intransitive verbs, is demonstrated in the examples below.

4-12 ngaganim-du
1sgGo -sleep
SU Pres
I'm sleeping.

4-13 yani -wurr-pagu
2sgGo-enter-HITH
SU Irr
Come in!

4-14 ngini -tyuttyurr-tye
1sgSit - bathe -Past
SU PImp redup
I was bathing.

4-15 yenim-purity
3sgGo-hide
SU Pres
He's hiding.

4-16 wirribem-gulirr-nyine
3sgStand-circle -FOC
SU Pres
(The tape recorder) is spinning now.

Monovalent CVS can, subject to the requirement of semantic plausibility, be productively combined with the major 'transitive' instrumental auxiliaries, resulting in transitive causative readings. In this respect 'transitive' auxiliary selection can be seen as a valence increasing process. Compare 4-12 to 4-16 above, with 4-17 to 4-21 below.

4-17 ngirngirr ngudum -burrki-du
sleep 1sgShove-3dl -sleep
SU Perf DO
I put the two (kids) to sleep.
Monovalent neutral CVSs additionally combine with the detransitivised auxiliaries that are the reflexes of the major 'transitive' instrumental auxiliaries. We have just seen how the combination of 'transitive' auxiliaries with monovalent neutral CVSs has a valence increasing effect and gives a causative reading. These causative verbs can be valence decreased and be given a reflexive reading by selection of one of the detransitivised auxiliaries. The combination of monovalent CVS -wurr 'enter' with 'intransitive', 'transitive' and 'detransitivised' auxiliaries respectively, and the resultant intransitive, causative and reflexive verbs are set out in 4-22 below.

4-22 a) ngaganiny-wurr wembem
   1sgGo -enter house
   SU Perf
   I went into the house.

b) ngudum -Ø -wurr
   1sgShove-3sg -enter
   SU Perf DO
   I put it in the house.

c) ngudeny -wurr debi-werre
   1sgShoveDtrD-enter leg -ASSOC
   SU Perf
   I pulled on my trousers.
   (lit: I put myself into trousers.)
Among bivalent neutral CVSs we find -mi-wap -sit with', -pirr 'leave alone', -lit 'block', -wuty 'discard' -pup 'rub', and -tip 'grab'. Bivalent neutral CVSs can combine with 'intransitive' auxiliaries producing 'low transitive' verbs. That is, verbs that are formally transitive, but are characterised by a low degree of patient affectivity.

4-23 ngani -nyi-mi -wap-pe
1sgGo-2sg-Val-sit -Fut
SU Irr DO inc
I'll camp with you.

4-24 ngaganiny- Ø -pirr
1sgGo -3sg-leave
SU perf DO alone
I left it alone

4-25 minbe nginyinggin-Ø yenim -Ø -lit
Neg 1sgSee -3sg 3sgGo -3sg -block
SU Pres DO SU Pres DO
I can't see it, he's blocking it.

4-26 ngaganiny- Ø -wuty kuru
1sgGo -3sg -discard water
SU Perf DO
I've poured out the water.

4-27 palayin ngirim- Ø -pup
firesticks 1sgSit -3sg -rub
SU Pres DO
I'm rubbing the firesticks.

4-28 yerr-kinyi wirribem- Ø -tiptip ngan'gi nyinyi
Tr -this 3sgStand -3sg-grab word 2sg
cl SU Pres DO redup PRO
This (tape recorder) is picking up your words.

Bivalent neutral CVSs can additionally combine with the major transitive auxiliaries, resulting in more highly transitive verbs. Compare 4-26 to 4-28 with 4-29 to 4-31 below.

4-29 gagu ngum - Ø -wuty
meat 1sgSlash-3sg-discard
SU Perf DO
I threw the meat away.
I rubbed up the firesticks for a fire.

The policeman is nabbing them.

Looking at 4-27 and 4-30 more closely we see that both verbs are transitive, (taking firesticks as O), but differ in their focus. 'Intransitive' auxiliary selection, in 4-27, focusses on the subject's posture and activity, whereas 'transitive' auxiliary selection, in 4-30, focusses on the instrumental means by which the agent manipulates the undergoer. This distinction could be brought out more clearly by respectively glossing these examples as: 'I'm sitting firestick-rubbing' and 'I rubbed the firesticks in a 'poke' classificatory manner' (see discussion of 'poke' in 4.5.1.2). This choice between 'intransitive' and 'transitive' auxiliaries thereby allows for varying degrees of transitivity to be attributed to an activity.

The second group of CVSs are those labelled 'transitive'. With one specific exception addressed below, 'transitive' CVSs combine only with the major 'transitive' auxiliaries. Among 'transitive' CVSs, we find -pawal 'spear', -ket 'cut', -bang 'pierce', -kerrety 'grasp', -fityi 'roll' and -pul 'clean'. The combination of these CVSs with 'transitive' auxiliaries is given in 4-32 to 4-37 below.

He speared both of them.

She cut my hair.

He pierced my nose for a noses tick.

Take me by the hand!
4-36  wulmen ngudu -nyi-madi-fityi ngunu  
   oldman 1sgShove-2sg -chest-roll how about it  
   SU Irr  DO  
Oldman! I'm going to turn you over, is that alright!

4-37  alayi warrakma kinyi werrme -ngi-pul -nime-tye  
   mother three this 3plHands-1sg-clean- tr - Past  
   SU Plmp  DO  SU  
These three mothers of mine used to wash me.

These highly transitive CVSs cannot be freely combined with 'intransitive' auxiliaries to produce a less transitive verb, as was noted above for monovalent CVSs. Thus an attempt to combine -kerrety 'grasp', for instance, with 'intransitive' auxiliary 'sit' to mean 'I am (sitting) grasping (it)', is unacceptable.

4-38  *palamurru ngirim-kerrety  
   clapping 1sgSit -grasp  
   sticks SU Pres  
I am sitting grasping the clapping sticks.

However, two 'transitive' CVSs, -pal and -fakurr both meaning 'break', have been recorded in an exceptional combination with the 'intransitive' auxiliary 'go'. The contrastive combinations of -pal with the 'hands' and 'go' auxiliaries are shown in 4-39.

4-39  a)  yerr-ba ngeriny-pal  
   Tr- arm 1sgHands-break  
   cl SU Perf  
I broke off a branch.

   b)  yerr-ba yenim-pal  
   Tr-arm 3sgGo-break  
   cl SU Pres  
The branch is broken off.

The construction shown in 4-39 b) functions as an agentless counterpart to 4-39 a). Following Green (1989:369) I refer to this construction type as the 'anticausative' (c.f. Comrie 1981:161). This construction type allows what is underlyingly the undergoer of a highly transitive verb to function as the subject of an intransitive verb. This is not a passive type construction where an agent is demoted and an undergoer raised to subject position. The argument structure of anticausatives allows for no controlling agent, either formally cross-referenced on the verb or appearing
as an oblique free nominal. Rather, the semantic effect of the anticausative is simply to encode a change-of-state without attributing this event to any agent at all.

Comparing 4-39 with 4-27 and 4-30 above, note that there is an important difference between the capacity to combine a 'transitive' CVS like -pal with both 'intransitive' and 'transitive' auxiliaries, and the same phenomenon noted in the discussion of bivalent neutral CVSs. The choice between combining bivalent neutral -pup 'rub' with 'intransitive' and 'transitive' auxiliaries respectively, allowed for variation in the degree of transitivity attributed to the activity. 'Intransitive' auxiliary selection focussed on the posture and activity of the controlling agent, whereas 'transitive' auxiliary selection focussed on the instrumental manipulation of the undergoer in the hands of the agent. Contrastively, where 'intransitive' auxiliaries combine with 'transitive' CVSs in the anticausative construction, their subjects are the thematic undergoers, not agents, of the transitive counterpart construction.

As noted above, only two CVSs have been recorded in this construction type. While others may be possible, there appear to be at least two constraints operating against the combination of 'intransitive' auxiliaries and 'transitive' CVSs. Firstly, CVSs representing activities that are inherently agentive, i.e. cannot conceivable come about through spontaneous forces, appear to be blocked from this construction. Secondly, the anticausative seems to be restricted to 3rd person singular inanimate subjects.

In summary then, although general transitivity values are independently attributable to both the auxiliary and the CVS, verbal transitivity in Ngan'gityemerri can only be formally defined in terms of the requirement that Direct Objects be cross-referenced within the verb under the appropriate person/number conditions.

4.3 Auxiliary - CVS Productivity

Some auxiliaries are capable of combining with a large number of CVSs, and likewise, some CVSs combine with a large number of auxiliaries. The substitution and interchangeability of these highly productive auxiliaries results in fairly predictable meaning changes. By way of example, consider the 'transitive' CVS -pul 'to clean' in combination with the auxiliaries 'hands', 'bash','heat' and 'hands oneself', in example 4-40 below.
In contrast the CVS -biny 'suck' has only ever been recorded in combination with two auxiliaries, 'heat' and 'suck' (see 4-244 to 4-246), and appears not to be amenable of productive interchangeability.

Although in reality auxiliary productiveness is probably best modelled as a continuum, I have chosen to follow Green's approach to the same issue in Marrithiyel (1989) by dividing auxiliaries broadly into two groups, major and minor, in an attempt to capture this difference. The major auxiliaries are those that combine with ten or more CVSs. The most prolific of the major auxiliaries is 'hands' which has been recorded with over ninety CVSs. Typically the substitution of different major auxiliaries with a given CVS results in fairly predictable meaning changes, as shown in 4-40 above. The minor auxiliaries, on the other hand, are those that have been recorded in combination with less than six CVSs (none happen to combine with between six and ten), and are in some cases these combinations are characterised by semantic opacity. Although a quite arbitrary distinction, this provides a general guide to the number of CVSs a particular auxiliary might be expected to combine with, and further gives a general indication of the predictability of the meaning of an auxiliary-CVS combination.
The division of the auxiliary system, in terms of these three criteria; simple/complex, 'transitive'/intransitive' and major/minor, is set out in Table 4-1 below.

<table>
<thead>
<tr>
<th>Ngan'gityemerri Auxiliary Categorisation</th>
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<tbody>
<tr>
<td><strong>Simple</strong></td>
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<tr>
<td>-Intransitive</td>
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<tr>
<td>Major</td>
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<tr>
<td>Sit</td>
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<td>Lie</td>
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<td>Stand</td>
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<td>Go</td>
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<td>Go*</td>
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<td>Heat</td>
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<td>-Detransitivised</td>
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<td>Hands oneself</td>
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<tr>
<td>Say/Do oneself</td>
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<td>Mouth oneself</td>
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<td>See oneself</td>
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<td>Poke oneself</td>
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<tr>
<td>Heat oneself</td>
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<tr>
<td>Shove oneself (dyn)</td>
</tr>
<tr>
<td>Bash oneself</td>
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<tr>
<td>Shove oneself (stat)</td>
</tr>
<tr>
<td>Feet oneself</td>
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</tbody>
</table>

Table 4-1

To best facilitate their discussion I divide up the 31 auxiliaries into six groups. The simple auxiliary verbs are discussed in 4.4. I treat their simple verb function in 4.4.1, and their complex verb function in 4.4.2. The discussion of their simple function is further broken down into three subsections, 4.4.1.1 to 4.4.1.3, which respectively deal with, the major intransitives 'sit', 'lie', stand', 'go' and 'go*', the minor intransitives 'say', 'arrive' and 'hang', and the minor transitives 'see' and 'take'.

The complex auxiliary verbs are discussed in 4.5. The 'transitive' complex auxiliaries are dealt with in 4.5.1 and the 'detransitivised' complex auxiliaries in 4.5.2. Among the 'transitive' complex auxiliaries there is a core group of eight major auxiliaries. Three of these, 'hands', 'feet' and 'mouth',
are bodypart instrumental. They are dealt with in section 4.5.1.1. Another
group of three, 'poke', 'slash' and 'bash', are primarily concerned with the
shape, contact and movement of instruments. These are addressed in
section 4.5.1.2. The remaining two major transitive auxiliaries, 'shove' and
'heat', are dealt with in 4.5.1.3. Subsection 4.5.1.4 deals with the three minor
transitive auxiliaries; 'suck', 'pull' and 'snatch'.

The 'detransitivised' complex auxiliaries, discussed in 4.5.2, are all
patently reflexes of other (mostly transitive) auxiliaries, but are formally
intransitive, being unable to crossreference their thematic undergoers as
direct objects. Detransitivised verbs have only a single syntactic argument
role, and are generally interpreted as reflexives involving the subject's
manipulation of his own body. The five major and five minor
'detransitivised' auxiliaries are discussed in 4.5.2.

4.4 Simple Auxiliaries
4.4.1 The Simple Function of Simple Auxiliaries
4.4.1.1 The Major 'Intransitives'

There are five 'intransitive' auxiliaries that form simple intransitive
verbs; 'sit', 'lie', 'stand', 'go' and 'go*'. These auxiliaries are all 'major', in
the sense defined in 4.3, combining productively with a large number of
CVDs. In structural terms, these five auxiliaries fill three main roles;
functioning as simple intransitive verbs, functioning as the auxiliaries in
low-transitive complex verbs, and functioning as serialised auxiliaries
marking aspect. The serialised aspect marking function of the 'intransitive'
auxiliaries has been discussed in 3.4.1, and is not treated further in this
section. Their complex verb function is dealt with in 4.4.2. Here we look at
their simple verb function.

Functioning as simple verbs, the five major 'intransitive' auxiliaries
can be divided into two groups. The postural auxiliaries 'sit', 'lie' and
'stand', are stative, having an inherently imperfective aspect. That is, any
activity described with one of these stative auxiliaries must be viewed as
having internal temporal constituency. As a consequence of this, the
postural auxiliaries cannot, in their simple function, be inflected for the
Ngan'giwumirri tense/aspect/mood category that I have labelled
'Perfective'. Inflection for this category entails the viewing of an event as
strictly punctual, an interpretation this is incompatible with the
imperfectivity inherent in the stative auxiliaries. Thus in 4-41 a) - c) below,
'sit' can be inflected for the categories 'present', 'irrealis' and 'past
imperfective'. However an attempt to inflect inherently imperfective 'sit'
for the 'perfective' category, in 4-41 d), is unacceptable.
4-41 a) ngirim  
1sg Sit  
SU Pres  
I am sitting.

b) ngi -pe  
1sg Sit-Fut  
SU Irr  
I'll be sitting.

c) ngini -tye  
1sg Sit-Past  
SU Pimp  
I was sitting.

d) *ngiriny  
1sg Sit  
SU Perf

but not;

Not only must the situation described by an 'intransitive' simple verb be understood aspectually to continue for a period of time, but the particular posture marked by the auxiliary must also be understood to remain unchanged throughout this period. Stative verbs then cannot be used to mark motion or change-of-posture. The dynamic correspondences of the stative postural verbs are formulated with dynamic 'go' (discussed below). Compare the simple stative 'sit' verb in 4-42 with the dynamic complex verb employing 'go' in 4-43 below.

4-42 kinyi ngi-pe  
here 1sg Sit-Fut  
SU Irr  
I'll sit here (and be sitting here).

4-43 kinyi ngani-wap-pe  
here 1sg Go-sit-Fut  
SU Irr  
I'll sit down here.

The motional auxiliaries 'go' and 'go*', forming the second group, are dynamic and may be used to describe activities with either imperfective or punctual aspect. Consequently 'go' and 'go*' can avail themselves of all four Ngan'giwumirri auxiliary inflectional categories. This is demonstrated for 'go' in 4-44.

4-44 a) ngaganim  
1sg Go  
SU Pres  
I'm going.

b) ngani -pe  
1sg Go-Fut  
SU Irr  
I'll go / be going.

c) ngagadi-tye  
1sg Go -Past  
SU Pimp  
I was going along.

d) ngaganiny  
1sg Go  
SU Perf  
I went.
As dynamic verbs 'go' and 'go*' describe situations that 'happen' rather than 'exist'. Most simply they function as verbs of motion, unspecified for direction. 'Go' is the more general motion verb, 'go*' describing more purpose/destination-oriented motion and continued motion.

4-45 mumba nayin-nime wadeninggi-nyine ngangginim-nime
walk 1dlinc-pl tomorrow -FOC 1plinc Go -pl
PRO SU Pres SU
So we're off on a trip tomorrow then, are we?

4-46 amungal -nimbi yirrini -tye fepi minbadi
Batchelor-SOURCE 3sgGo*-Past hill big
SU Plmp
From Batchelor he travelled to Peppimenarti.

Where the stative verbs, 'sit', 'lie' and 'stand', are restricted to describing single durations of unchanged posture, the dynamic verbs, 'go' and 'go*', can refer to repeated activity. As noted in 3.4.6, this iterative aspectual interpretation is consistent with the notion of 'moving from place to place'. Compare stative 'sit' with dynamic, iterative 'go' in 4-47.

4-47 a) dede pindiying nginni -tye
country placename 1plexSit-Past
SU Plmp
We (plex) were camped at Pindiying.

b) dede marrgumarrgu nganggidi-tye
country new - redup 1plincGo -Past
=somewhere else SU Plmp
We'd move about to new places.

Extending from this notion of renewed or repeated motion, 'go' and 'go*' come to be associated with habitual activity.

4-48 kidin yeyi nganggidi-pagu -tye de -kinyi
year other 1plinc Go-HITH-Past country-this
SU Plmp
We (plinc) used to come to this place every year.

Both the static and dynamic simple verbs perform three main functions. In addition to a 'literal' function, they have two copula-like functions - 'existential' and 'ascriptive'.

The literal function of 'sit', 'lie', 'stand', 'go' and 'go*' is to mark the particular posture/motion of the subject of the verb. The literal usage of
these verbs is essentially restricted to reference to higher animates, particularly humans, for it is only with these subjects that the capacity to contrast postures(/motion) has any real discourse significance. 'Sit' then, is only used literally to describe the posture of the kind of higher animates having legs which they can fold up, resting their behinds on the ground, keeping their torso upright. For humans the least marked interpretation would be sitting in a cross-legged fashion, though squatting, kneeling or any stance between lying and standing can be described as 'sitting'. 'Lying' and 'standing' can, I think, be taken as understood. The examples below then, draw attention to the literal stance of the subject.

4-49 ngayi nginge-tye deminy -ngi-du pat meny -ngiti
1sg 1sgLie -Past 3sgHands-1sg-touch arise 3sgSay -1sg
PRO SU PlImp SU Perf DO SU Perf IO
I was lying down (asleep) when she woke me, 'Get up!' she told me.

4-50 yini-pefi-tye peyipa nyinyi yini-wurrkama-tye
2sgSit-DUR-Past paper 2sg 2sgSit-work -Past
SU PlImp PRO SU PlImp
You sat around a while working on your papers.

4-51 mityity wagarri pey-endi widdibemgu
white two there-EMPH 3plStand dl
woman SU Pres SU
There were two women (airport metal-detector operators) standing
yerr-tyagani-merrendi gentyerrmigi-baty knife
Tr-what -LEST 2plHands dl-hold
cl SU Irr SU
there, lest the two of you might have a knife.

In their copula functions 'sit', 'lie', 'stand' 'go' and 'go*' are used to encode the existence/location of, or ascribe attributes to their subjects. 'Existential' clauses are simply statements about the existence of entities with respect to space and time. 'Ascriptive' clauses employ the simple intransitive auxiliaries to ascribe certain characteristics to their subjects. These characteristics can be expressed as either adjectives or through attributive NP's. As copulas 'sit', 'lie', 'stand', 'go' and 'go*' are used for both inanimate and animate subjects, necessitating a rather broader view of each posture. The discussion of posture below is exemplified with existential clauses.

In addition to animates that are in an obviously prone/supine posture, any inanimate that is not raised off the ground, and is conceived of...
as having significantly greater breadth than height, is said to 'lie' rather than 'stand'. Thus, rivers, billabongs, roads, canoes, hills, felled trees, rocks etc. all 'lie'.

4-52 kanbi kide yu yu kinyi gibem didjeridu where yes yes here 3sgLie SUPres
Where's the didjeridu ?, oh yes it's (lying) here.

4-53 nelen wunu-pefi wibem malfiyin nem nintyi wunggume yenim road there -THITH 3sgLie placename 3sg knee one 3sgGo SUPres PRO SUPres
Where that road to Malfiyin is (lies), as you go round that corner.....

4-54 ya eferri gibem-nyine meny-nin hey bluetongue 3sgLie-FOC 3sgSay-1dlinc lizard SU Pres SU Perf IO
'Hey there's a bluetongue (lying) here' he told us.

Anything that is either raised above the ground on legs, or leg-like supports, or is conceived of as having significantly greater height than breadth, is said to 'stand'. Of these two criteria leg-having is predominant. Both centipedes and cars, for instance, despite their height to breadth ratios, 'stand' by virtue of their having 'legs'. Other inanimates that 'stand' include buildings (and by extension, cities), trees, fridges, antbeds, billys and jerrycans.

4-55 ngambinigerri-tye ngan-mawuny yerr-minbadi girribem 1plincGo* -Past LOC -ironwood Tr -big 3sgStand SU PImp REL cl SU Pres
We went to where that big ironwood tree is (stands).

4-56 light ngimbinyirri dede town-mirri wirribem start-mem-pagu 1dlinc See country -EMPH 3sgStand -3sgDo-HITH SU Perf SU Pres SU Pres
(From the plane) we saw the lights, from where the town starts (ie. the outskirts of Melbourne).

4-57 car nem-nyine girribem 3sg -FOC 3sgStand PRO SU Pres
There's his car (standing) there now.

4-58 room spare one widdibenggu 3plStand dl SU Pres
Have you got two spare rooms ?
For small inanimate objects that are typically manipulated by humans, 'posture' is, of course, not an inherent feature, but dependent on the position in which the object is left. In 4-60, a directive for finding a crowbar and axe, the former is said to be 'lying' on the table, the latter is said to be 'standing', presumably propped against a wall.

The crowbar's in the old store, up on the table,  
there's an axe there too.

For human subjects, 'sit' is the only stative simple verb that can be used existentially, and in this capacity it can be distinguished from the literal function of 'sit', in being unmarked for posture. Thus in 4-61 below 'sit' is used to describe the presence of a person in his camp, out of sight, and therefore posture unknown. 4-62 was uttered by a person standing in a telephone booth.

'Where's Alawa ?' 'He's still over there in his camp'.

No, I'm in Peppimenarti, I'll be here for another week.

In 4.4.1 we noted that the stative simple verbs are to be understood as describing the presence of a subject in a particular location, spanning a period of time throughout which the subject's stance remains unchanged. Contrastively, the dynamic simple verbs allowed for a more general
interpretation of movement about the place, without any implication that
the activity in question is necessarily in progress at all times. Given the
requirement of unchanged stance, stative verbs describe temporary states
whereas dynamic simple verbs have an association with semi-permanent
states through their habitual and iterative readings. This opposition
between transitory and permanent perspectives provided by the distinction
between stative and dynamic simple verbs, is also exploited in their copula
functions. Examples 4-61 and 4-62 above both have 'sit' marking transient
existential states. Compare them with the permanent perspective conveyed
by the dynamic simple verb 'go' in existential function, in 4-63.

4-63 yu mem-nimbi mipurr gagu wadditye
yes 3sgDo-CAUS men animal 3plGo-Past
SU Pres generic SU P1mp
= in the beginning
Long ago men were totemic animals.

Note that the copula use of simple verbs with inanimate subjects does
not exploit this opposition between dynamic/permanent, on the one hand,
and stative/transient on the other. This of course is unsurprising as the
capacity for inanimates to undertake dynamic activity is typically low. All
existential statements with inanimate subjects select the stative 'sit', 'lie'
and 'stand' simple verbs, taking the particular verb that its postural
configuration determines.

Ascriptive clauses, attributing particular characteristics to their
subject, are exemplified below. In 4-64 and 4-65 this characteristic is
attributed to inanimate subjects through an adjectival expression, in 4-66
through an attributive NP. Inanimate subjects do not take the dynamic
simple auxiliaries in this function. They only employ the stative verbs, and
the choice between 'sit', 'lie' and 'stand' is made in terms of the criteria set
out above.

4-64 afirr bubungini winge-tye
corpse decomposed 3sgLie -Past
SU P1mp
The corpse was decomposed.

4-65 mudiga wasangari wirribem-nyine
car clean 3sgStand-FOC
SU Pres
The car's clean now.
I noticed that that petrol thing (gauge) was halfway down.

In ascribing attributes to animate subjects, the choice between stative and dynamic simple verbs is also exploited to distinguish transitory versus permanent perspectives. This can be seen in 4-67 and 4-68 in which the same adjectival characteristics are attributed to both stative and dynamic simple verbs respectively.

4-67  a)  lamurity dim
     happy 3sgSit
     SU Pres
     She's happy (at the moment).

     b)  lamurity yenim
     happy 3sgGo
     SU Pres
     She's happy (by nature).

4-68  a)  felfi dim
     alone 3sgSit
     SU Pres
     He's alone.

     b)  felfi yedi -tye fenggiderri
     alone 3sgGo-Past long time
     SU Pimp
     He lived alone for a long time.

The attribution to subjects of characteristics can be expressed, not only with adjectives, but with attributive NP's. In 4-69 the attributive NP is a simple nominal, in 4-70 it is a noun + modifier, and in 4-71 it is a nominalised clause (cf. 5.3.3).

4-69  merretmen -nyine wannunggu
       person of -FOC 3plGo dl
       married status SU Pres SU
       Those two are married now.

4-70  depi kinyi ngagadi-tye ngatya ngayi peanut dingim -pup-tye -yedi
       NgK head here 1sgGo -Past father 1sg 3sgMouth-rub -Past-3sgGo
       SU Pimp PRO SU Pimp =plant SU Pimp
       When I was this high (accompanied by hand gesture) my father used to plant peanuts.
Your sister is a woman just like us (behaves like a Ngan'gikurunggurr woman).

4.4.1.2 The Minor 'Intransitives'

This section looks at the simple function of the minor 'intransitive' auxiliaries 'say', 'arrive' and 'hang'.

In its simple function the 'Say' auxiliary means "say", "do" or "think". It takes only higher animate subjects, in fact in addition to humans, it has only ever been recorded with ghosts or ancestral beings as subject. I refer to the auxiliary, as a morphological category, as 'say', but in the examples gloss it variously as 'Say', 'Think' or 'Do'. While speech and deed are contextually, not formally, distinguished from each other, they differ from 'think' in their capacity to cross-reference indirect objects. That is, speech and deed can be directed towards a goal NP, but thought cannot. This is apparent in the examples given below, where 'Say' refers to speech in 4-72, thought in 4-73, and deed in 4-74.

4-72 ala ngayi wagarri wirrminy-ngeterr funggulu ngamban-nime-Ø
mother 1sg two 3pl Say -1sg/dl honey 1dl Go -pl-HORT
PRO SU Perf IO/SU SU Irr SU
My two mothers said to me 'Let's go for sugarbag'.

4-73 ngayi-nyine-pe ngarrene-madiwirri ne ngayi ngiminy
1sg -FOC -Fut 1dlexGo -play SUPP 1sg 1sg Think
PRO SU Irr PRO SU Perf
Maybe I could play with him now, I thought to myself.

4-74 ngayi-ne yumu-ngiti were
1sg -PURP 2sgDo-1sg brother
PRO SU Irr IO
Do it for my sake, brother!

Being formally indistinguished, the speech and deed interpretations of 'say' are frequently equally applicable, as indicated by the glosses in 4-75.

4-75 wananggal ityi meny-bi
doctor what 3sg Say/Do-2sg
SU Perf IO
What did the doctor say to you/do to you.

The minor simple verb 'arrive', means to reach, or come apon, some goal, usually a place or person. As noted for 'Go' and 'Say', 'Arrive' allows
for the cross-referencing of a human goal with indirect object bound pronominals on the verb. This is shown in 4-77 below.

4-76 kultyinimbi werrmen'geny
   yesterday 3plArrive
   SU Perf
They arrived yesterday.

4-77 yibe ngara -fi -pal -pe ngemen'ge-nbi-"pe
   later 1sgPokeDtr-Mp-break-Fut 1sgArrive -2sg -Fut
   SU Irr =return SU Irr IO
I'll return later and come to you.

'Hang' differs from 'sit', 'lie' and 'stand' in that, in terms of its productivity in combining with CVSs, it is quite minor. In other respects though 'hang' forms a natural class with these three auxiliaries; sharing their static, as opposed to dynamic, interpretation; being in aspectual terms, inherently imperfective; and sharing their capacity to be serialised to the verb as an aspectual operator (cf. 3.4.5); and, as evident in 4-79, being used in existential function.

'Hang' essentially describes animates being raised off the ground, supported in that position by something other than a part of themselves. The vast majority of examples of 'hang' in my text database refer to birds perched in trees. Less frequent examples include humans perched in trees to escape floodwaters, or for hunting purposes, and one example of serialised 'hang' used to describe a clown walking about on stilts at a fair. I have recorded no examples of inanimate objects sitting in trees, described with 'hang'. This may be because they are specifically precluded, or simply due to the increased likelihood that they be treated as the patients of transitive verbs, rather than the subjects of 'hang'.

4-78 darrwa wirtyinge-"ye egeningge-"ne
   platform 3plHang -Past magpie -PURP
   SU Plmp goose
They were 'hanging' on a hunting platform (in the tree), (waiting) for geese.

4-79 kudede wani -nimbi ewerrbalarr wirtyim -"pe
   wet 3sgGo-CAUS birds 3plHang -Fut
   season SU Irr SU Irr
When the wet comes, (these trees) will be full of birds.
4.4.1.3 The Minor 'Transitive' Auxiliaries

Only two 'transitive' auxiliaries, 'see' and 'take', function as simple verbs and both of these are minor (in terms of their productivity in combining with CVSs in their complex function). Two other 'transitive' auxiliaries, 'poke' and 'slash' have been recorded in the absence of a CVS, but I have chosen to analyse these as complex rather than simple. (Reasons for this decision are set out in 4.4.4)

As a simple verb 'see' has the straightforward sense of visual perception. It takes agent subjects and its undergoers (in the sense of Foley and Van Valin:1984) are cross-referenced as direct objects.

4-80 ngityirr minbe-nyine-tye nginnyirrigu kuru wu -wurru
ground Neg -FOC -Past 1pl See dl rain cloud-UNSATIS
SU Irr SU

We (dl) were unable to see the ground (from the plane) because of the rainclouds.

4-81 ngeriny -pal -pefi dinyirri-ngi
1sg Hands-break-COTEMP 3sg See -1sg
SU Perf SU Perf DO

Just as I broke it, he saw me.

4-82 yerr-kiyi signboard yinyirri-Ø law kinyi
NgK Tr -this 2sg See -IMP this
cl SU Irr

Look at this (Sacred Sites Authority) signboard! This isn't the
minde ngagurr-nimbi ngerrim -wurity law nagurr-ninggi
Neg 1plex -CAUS 1pl Hands-make 2pl -AGENT
PRO SU Perf PRO

law that we (ex) made, it's your (whitefellas') law.

In Ngan'gityemerri, as in English, the use of the verb 'see' with human objects carries a strong implication of, not merely visual perception of an object, but of social interaction with that object. This is obvious in 4-83, often used as an expression of farewell.

4-83 yibe nginyirri-nyi-pe
later 1sg See -2sg-Fut
SU Irr DO

I'll see you later!

The other transitive simple verb, 'take', also takes agent subjects and cross-references its undergoers as direct objects. 'Take' has the sense of 'carrying' with inanimate objects (4-84), and 'accompanying' with higher animate objects (4-85 to 4-87). Being unmarked for direction, the distinction
between 'bring' and 'take', where relevant, being marked through addition of the HITHer and THITHer enclitics.

4-84 ngayi-nyine ngawam-pe
1sg -FOC 1sgTake -Fut
PRO SU Irr
I’ll take it then.

4-85 yentyi -ngi-tye dede mendi wudum -ngi-mi-tyuk
3sgTake-1sg-Past camp close 3sgShove-1sg-val-send
SU Pimp DO SU Perf DO inc
He took me up close to camp, then sent me on from there.

4-86 warrgantyi-tye Fannie Bay exercise yard-nide
3pl Take -Past -LOC
SU Pimp
They took him to the exercise yard at Fannie Bay jail.

4-87 ala nem meny -nge, abayi kinyi ngagantyi-tye, piwari nem Ilyere
mother 3sg 3sgSay-3sgF little here 1sgTake -Past name 3sgM name
PRO SU Perf IO brother SU Pimp PRO
He said to his mother 'I've brought my little brother, his name's Ilyere'.

4.4.2 Complex Function of the 'Simple' Auxiliaries

The role of the simple 'intransitive' auxiliaries in complex verbs is broadly consistent with their function as simple verbs. The posture/motion auxiliaries 'sit', 'lie', 'stand', 'go', 'go*' and also 'hang', primarily categorise the posture/motion of the subject, and additionally encode the aspectual distinction between stative and dynamic activity. As noted in 4.1.1.2, 'intransitive' auxiliaries combine only with neutral CVSs, a class comprised of both monovalent and low-transitive bivalent CVSs. These neutral CVSs are also broadly divisible into two groups; those having an inherently dynamic character, and those that do not. Dynamic CVSs are those describing a change of location (eg. -pap 'climb'), change of state (eg. -bubu 'sleepy'), or change of posture (eg. -wap 'sit').

In general these dynamic CVSs are restricted to combining with the dynamic motion auxiliaries, 'go' and 'go*'. The resultant complex verbs are aspectually perfective, that is, they are presented as single whole events without regard for their internal temporal constituency.

4-88 ninymunggurr wanniny-pap
escarpment 3pl Go climb
SU Perf
They climbed up onto the escarpment.
4-89 yenim -bubu -nyine
3sg Go -sleepy-FOC
SU Pres
He's become sleepy.

4-90 ngannunygu-wap belt ngirrmenygi -wurr
1plex Go dl -sit seatbelt 1plexHandsDtr dl -enter
SU Perf SU SU Perf SU
We sat down and fastened our seatbelts.

The stative postural auxiliaries do not productively combine with these dynamic CVSs. However the change of location CVS -pap, and the change of state CVS -bubu, in 4-88 and 4-89 above, have both been recorded with the stative auxiliary 'sit'. This combination of stative auxiliary with dynamic CVS gives a 'resultant state' reading. That is, it allows stativity and dynamicity to co-exist by construing the static state as the result of dynamic activity - implying that the subject is in the stative posture (described by the auxiliary) that was achieved through the dynamic change-of-location activity (described by the CVS). Thus, compare 4-88 and 4-89 above with 4-91 and 4-92 below.

4-91 winni -pappup-tye
3plSit -climb -Past
SU PImp redup
They were sitting up on top (having climbed up).

4-92 ngirim-bubu -nyine
1sgSit -sleepy-FOC
SU Pres
I'm sleepy now (having become sleepy).

The combination of a stative auxiliary with a change-of-posture CVS does not lend itself to a resultant-state reading. Attempts to combine 'sit' auxiliary with the change-of-posture CVS -wap have been rejected outright.

4-93 *ngirim-wap
1sgSit -sit
SU Pres
I'm sitting (having sat down).

The second identifiable group of neutral CVSs are those that do not have any inherently dynamic character that restricts their capacity to combine with stative auxiliaries. Rather, CVSs from this unmarked set freely combine with both stative and dynamic auxiliaries, forming low-
transitive complex verbs. Complex verbs formed through combination of these unmarked neutral CVSs with stative auxiliaries have an aspectually imperfective interpretation. They are understood to mark the activity as taking place within the one continuous time span throughout which the subject's posture remains unchanged.

4-94 ngini -fifi -tye peke
1sg Sit -smoke-Past tobacco
SU Plmp
I was smoking a cigarette.

4-95 werrintyinim-wulil-tye
3pl Lie -swim-Past
SU Plmp
They were swimming.

4-96 wirribem-ngiti-falmuy
3sg Stand -1sg -stare
SU Pres IO
He's staring at me.

4-97 asyinme wirrtyibem-kayki
sulphur-crested 3pl Hang -call
cockatoo SU Pres redup
Sulphur-crested cockatoos are crying out (hanging in the trees).

The postural classification provided by the stative auxiliaries in their complex function is consistent with the comments made about their simple function in 4.2.1. 'Sit', 'lie', 'stand' and 'hang' all overtly describe the subject's specific posture, though as is the case in the serialised and existential functions of the simple intransitives, 'sit' is generally the unmarked choice for the stative auxiliaries in complex function, having a primarily aspectual, rather than posture classifying, role.

Not all the CVSs in this second unmarked set necessarily have a durative aspectual nature. Some, like -kilik/-kuluk(K) -'cough', are inherently punctual and must be marked as iterative, through verbroot reduplication, to be amenable to imperfective interpretation.

4-98 ngini -kikilik-tye
1sg Sit -cough -Past
SU Plmp redup
I was coughing.
The combination of unreduplicated punctual CVSs of this group with stative auxiliaries is not a favoured construction. It is however possible and results in a semelfactive reading (ie. one instance only of something typically iterative).

4-99  ngiriny-kilik
1sg Sit -cough
SU Perf
I gave a cough.

This example raises a major difference between the simple and complex functions of the stative auxiliaries. Recall that the inherent imperfectivity of the stative auxiliaries in their simple function prevented their inflection for the auxiliary tense/aspect/mood category labelled 'Perfective'. Thus I noted in 4-41 d) that the perfective inflection of the 'sit' auxiliary cannot stand meaningfully as a simple verb (eg. *ngiriny). Contrastively, in their complex function the stative auxiliaries can be inflected for either imperfective or perfective tense/aspect/mood categories. Thus a durative activity like smoking can either be described as an imperfective event (4-100 a)), or be construed as a single perfective event without regard to its internal temporal make-up (4-100 b)).

4-100 a)  ngini -fifi -tye
1sgSit-smoke-Past
SU Pimp redup
I was smoking.

b)  ngiriny-fifi
1sgSit -smoke
SU Perf
I had a smoke.

And a punctual activity like drinking (or coughing) can either be described as an imperfective event (4-101 a)), which will require reduplication of the verb root, or be given as a single perfective event (4-101 b)).

4-101 a)  ti nginni -kukuduk-tye
tea 1plexSit- drink -Past
SU Pimp redup
We (plex) were drinking tea.

b)  ti ngirriny-kuduk
tea 1plexSit -drink
SU Perf
We drank tea.
This second set of neutral CVSs that are not specifically dynamic, can also form complex verbs in combination with the dynamic 'go' and 'go*' auxiliaries. These mark action as performed while moving about from place to place, or activity that is renewed at different places and on subsequent occasions.

4-102  waddi  -kayki-tye
3pl Go  -call  -Past
SU Plmp redup
They called out (while going along).
or They called out (at different places they went to).

It is through this association with renewed activity, in contrast to the single unchanged timespan associated with stative auxiliary selection, that dynamic auxiliaries combined with these neutral CVSs can convey habitual activity. This can best be demonstrated by pairing the same CVSs with both stative and dynamic 'intransitive' auxiliaries.

4-103  a)  ngirim-fifi
1sgSit  -smoke  
SU Pres
I'm smoking.

b)  ngaganim-fifi
1sg Go  -smoke  
SU Pres
I smoke (as a habit).

4-104  a)  ngirim  -kukuduk  kuru
1sgSit  -drink  beer  
SU Pres  redup
I'm drinking beer.

b)  minbe  ngaganim-kuduk  kuru  lenggirr
Neg  1sg Go  -drink  water  bad  
SU Pres  generic
I don't drink beer.

4-105  a)  ngambaty  dini  -pappup-kana-tye
NgK  tide  3sgSit  -climb  -FOC  -Past  
SU Plmp redup
The tide was high then.
(lit: ..was sitting up having climbed up. (resultant state)).

b)  ngambaty  wani  -pappup-ngini
NgK  tide  3sg Go-climb  -Fut  
SU Irr  redup
When the tide comes up..(as it habitually does)...


I will now turn my attention to the complex function of the remaining minor simple auxiliaries, 'Say', 'Arrive', 'See' and 'Take'.

As noted in 3.1.1 the complex function of the 'say' auxiliary is quite anomalous in having the auxiliary ordered after the verbroot, rather than in the regular verb-initial position. This irregular ordering is exemplified in 4-106 and 4-107. Further, the CVS no longer operates as a single functional unit; incorporated bodyparts, for instance, do not shift to the pre-auxiliary position along with the verb root, but remain in the post-auxiliary position, as shown in 4-108 and 4-109.

4-106 ngambanam-palat mumba winy -meny -nin Tyarambu
1dlinc Feet -pass road whistle-3sgDo -1dlinc name
SU Perf SU Perf IO
As we went past the turnoff, Tyarambu whistled at us.

4-107 kukuk nuwurr ngirrkik -ngumum
wait a little breathless-1sgDo
while SU Pres
Hang on a minute! I'm out of breath.

4-108 afunggarri buy -mem -derri-wirribem
brolga white-3sgDo-back -3sgStand
SUPres SU Pres
There's a brolga standing out whitely on the river bank.

4-109 minbe tyip -yumu-ngiti-tyeri
Neg dark-2sgDo -1sg -ear
SU Irr IO
Don't you forget me!

'Arrive' has a very minor complex function, having been recorded in combination with only a single CVS -tasat 'emerge' in Ngan'gigumirri. In Ngan'gigurunggurr 'arrive' has no complex function.

4-110 mirri men'gen-tasat -nyine
sun 3sgArrive-emerge-FOC
SU Pres
The sun's coming out now.

4-111 nintyinintyi-nimbi ngerrmen'gen-tasat palat
scrub -SOURCE 1plexArrive -emerge plain
SU Perf
From the scrub we emerged onto the open plain.
Here the semantics of 'Arrive' appear to be compatible with those associated with its simple function.

The 'See' auxiliary has been recorded forming complex verbs with the four CVSs, -kerrety 'grasp', -yilil 'recognise', -tisit 'be jealous of' and -fiway 'be unable to', shown in 4-112 to 4-115 below. 'See', consistent with its simple function, is selected in complex verbs where activity is achieved through visual perception.

4-112 wetimbi nginyirrini-Ø-kerrety-tye
   good 1sg See -3sg-grasp -Past
   SU Plmp DO
   It's OK, I was keeping an eye on him.

4-113 ngayi yinyinggin-ngi-yilil
   1sg 2sg See -lsg-recognise
   PRO SU Pres DO
   Do you recognise me?

4-114 dinyinggin-nyi-tisit
   3sg See -2sg-be jealous
   SU Pres DO
   She's jealous of you.

4-115 wirmyinggin-ngi-fiway
   NgK 3pl See -lsg-be unable
   SU Perf DO
   They were unable to see me.

The 'take' auxiliary forms complex verbs with about eight CVSs. In some of these verbs 'take' maintains its simple verb sense of 'taking' or 'bearing' objects in the hand, or leading/accompanying people.

4-116 yentyi -Ø-lali -tye
   3sgTake-3sg-around-Past
   SU Plmp DO
   He was carrying it around

4-117 ngani -kide-nawa nagatyin-fel
   NgK KIND-how-INDEF 3sgTake -bounce
   SU Perf =lift
   How on earth can he lift that!

4-118 wawam -nin -firr-ngini
   NgK 3sgTake-1plinc-foot-Fut
   SU Irr DO =lead
   He'll lead us out.
'Take' has however additionally been recorded with the verb root -si, meaning 'to cut', and with two verb roots -genket 'break in two' and -melpe 'flatten'. In these latter combinations it describes the 'breaking' or 'flattening' as performed by sitting on the object. In this limited respect 'take' can be said to function as an instrumental bodypart auxiliary, akin to 'hands', 'feet' and 'mouth', but in this case marking activity achieved through the instrumental use of the buttocks.

4-119  ngagatying-ngindi-si
1sg Take -1sg -cut
SU Perf  IO
I cut myself.

4-120  yenin -derri-wap yetyin - Ø -melpe
3sg Go-back -sit 3sg Take-3sg-flatten
SU Perf SU Perf DO
She sat down and squashed it.

4-121  yawul yagany -gen-ket
spear 2sg Take-mid-cut
SU Perf DP
You've broken the spear (by sitting on it).

4.5 Complex Auxiliaries
4.5.1 The 'Transitive' Complex Auxiliaries

The role of the major 'transitive' auxiliaries is to classify the verb with respect to the instrumental means of execution. The principles underlying this instrumental classification can be revealed by asking three questions about the nature of the activity.

4- Is the activity effected through the use of a bodypart, an implement, or fire?
2- If the body, is it the hands, the feet or the mouth?
3- If an implement;
   -what is its shape?
      |long and cylindrical
      |long and flat
      |lumpy and rounded
   -what sort of contact does it make?
      |point
      |edge
      |blunt faced
   -what is its trajectory?
      |arching
      |linear
Section 4.5.1.1 'Hands', 'Feet' and 'Mouth'

'Hands'

The 'hands' auxiliary classifies activity as achieved through the manipulation of the undergoer in the hands of the agent. Example 4-122 below contrasts the instrumental use of hands, feet and mouth with the CVS -kalal 'to make a rustling noise'.

4-122 a) miringgi ngeriny -kalal
leaf 1sgHands-rustle
SU Perf
I rustled the leaves with my hands.

b) miringgi nganam-kalal
leaf 1sgFeet-rustle
SU Perf
I rustled the leaves with my feet.

c) miringgi ngem -kalal
leaf 1sgMouth-rustle
SU Perf
I rustled the leaves by blowing them.

Likewise, 4-123 and 4-124 below contrast the use of the hands as instruments, with the 'poke' and 'slash' auxiliaries.

4-123 a) ngeriny-fityi peke
1sgHands-roll tobacco
SU Perf
I rolled a cigarette (in my hands)

b) ngariny-fityi screwdriver-ninggi
1sgPoke-roll -INSTR
SU Perf
I screwed it up with a screwdriver(long thin implement).

4-124 a) mi-ngugurr ngeriny -ba -ket
Pl -tamarind 1sgHands-arm-cut
cl SU Perf
I plucked a tamarind from the branch (by pinching it off with my fingers).

b) gagu a-wedi ngum -ket
meat A-small 1sgSlash-cut
cl SU Perf
I sliced off a bit of meat (with a knife).

The 'hands' auxiliary requires a notion of the hands not merely as particular bodyparts, but more specifically as bodyparts that have the
primary function of grasping and holding. Consequently, 'hands' does not combine with verb roots like 'hit', 'flick', 'slap', 'prod' and 'clap' etc. that, even though they can be specified as being performed with the hands, are verbs that denote momentary impact and consequent propulsion, without the object being held. This grasping, containing function of hands is shown in 4-125, which contrasts the combination of 'hands' and 'shove' with the verb root -didi 'push'.

4-125 a) ngeriny - Ø -didi  
1sgHands-3sg-push  
SU Perf DO  
I pushed him along (holding onto him)  

b) ngudum- Ø -didi  
1sgShove-3sg-push  
SU Perf DO  
I gave him a shove.

In 4-125 b) 'shove#didi' implies impact and propulsion, whereas the grasping component underlying the selection of the 'hands' auxiliary in 4-125 a) is shown by the resultant interpretation of the object being pushed along whilst being maintained in the grasp of the agent.

Further examples exemplifying this notion of 'holding within the hands' are set out below.

4-126 ngemi -ne-tyerr -baty-pe  
1sgHands-3sg-mouth-hold-Fut  
SU Irr IO = lead  
I'll lead him along.

4-127 werrmegu -me -kerrety-tye  
3nsHandsdl-hands-grip -Past  
SU PlmpSU  
They (dl) were holding hands.

4-128 yemi -ngiti-tada-pagu  
2sgHands-lsg -peel-HITH  
SU Irr IO  
Peel (this orange) for me !

4-129 werrfe deminy -wurrirr  
mid- 3sgHands-move  
distant SU Perf  
He moved it over there.
Among the verbs that are formulated with the 'hands' auxiliary, there is a subset of verbs that have 3rd singular, but non-recoverable, agents and cross-reference their patients as direct objects. Consider the examples below.

4-131 minmipi demim -ngi-yiri
  funnybone 3sgHands-1sg-numb
  SU Pres   DO
  My funnybone is numb.
  (lit: It is making my funnybone numb.)

4-132 kikilik deminy -ngi-tip
  cough/flu 3sgHands-1sg-grab
  SU Perf   DO
  I had the 'flu.
  (The flu had grabbed me. ?)

4-133 deminy -ngi-tyerr -tati
  3sgHands-1sg-mouth-open
  SU Perf   DO   redup
  I yawned.
  (lit: It repeatedly opened me at the mouth.)

4-134 demim -ngi-ge -bul
  3sgHands-1sg-belly-heat
  SU Pres   DO
  I'm getting angry.
  (lit: It is heating me in the belly.)

The obvious question to ask of these impersonal verbs is 'why are they constructed with the 'hands' auxiliary?'. Certainly, despite the above noted, and independently establishable, psychological reality of the semantic components of auxiliaries, there is no compelling evidence to suggest that Ngan'gityemerri speakers view verbs such as 'to be (made) angry' in terms of any literal notion of 'grasping hands'. While speakers will readily invoke the instrumental use of hands and feet in explaining the difference between pairs of verbs such as given in 4-122 above, they make no recourse to 'hands' imagery in explaining the selection of the 'hands' auxiliary in impersonal verbs. However, for at least some impersonal verbs we can establish equivalent active verbs with clearly identifiable subjects. Compare, for instance, 4-135 below with 4-132 above.
Here the instrumental use that the policeman makes of his hands in grabbing me, is unquestionably compatible with the 'grasping hands' notion that is central to the 'hands' auxiliary. That 'grabbing' is primarily viewed as a 'hands'-type activity, would then appear to be the basis of the selection of the 'hands' auxiliary even in examples where metaphorical 'grabbing' is effected by non-animate, or indeed non-specified 'agents'. Having the 'flu, for instance, is viewed metaphorically as being 'grabbed by the flu' in the sort of way that one is 'grabbed by a person'. Auxiliary selection in 'agentless' impersonal verbs thus appears to be predicated on the auxiliary found in the active verb to which it is metaphorically linked.

Impersonal verbs have been found to select the 'hands', 'poke', 'bash' and 'feet' auxiliaries, and are listed as subsets in the respective discussions of each auxiliary. While not all examples can be linked to active equivalent verbs in contemporary Ngan'gityemerri, I would presume that auxiliary selection in all impersonal verbs was originally based on metaphorical extension from an active verb, even where the equivalent active verb has since undergone change.

'Feet'

Verbal classification by the 'feet' auxiliary marks verbs as performed specifically through activity of the agent's feet. Several verbs of motion select 'feet', as shown in the examples below.
However, the majority of 'feet' verbs focus more specifically on the instrumental transitive use of feet, and as such can be contrasted with 'hands' effected activities. In 4-122 above we have already exemplified this kind of contrast, and further examples can be found below.

4-140

a) yanna -tyek defirr
   2plFeet-erase footprints
   SU Irr
   (Be careful to ) erase your footprints (by smudging your feet sideways at each step).

b) yemi -tyek
   2sgHands-erase
   SU Irr
   Wipe it off (with your hands).

4-141

a) nganam-tyerr -dum
   1sgFeet-mouth-bury
   SU Perf
   I drowned it (by holding it underwater with my feet).

b) ngeriny -tyerr -dum
   1sgHands-mouth-bury
   SU Perf
   I drowned it (by holding it underwater with my hands).

4-142

a) nganam-baty
   1sgFeet- hold
   SU Perf
   I trod on it.

b) ngeriny -baty
   1sgMouth-hold
   SU Perf
   I held it

A small subset of 'feet' verbs are not strictly 'feet-instrumental'. For instance, 4-143 and 4-144 below are patently effected through the use of the hands.

4-143 yana -fufu mumba e-fenggu-nana
   NgK 2sgFeet-shine path A-long -LEST
   SU Irr cl
   Shine (the torch) on the path, in case there's snakes!
They were unable to reach the green plums, being so high.

For both these examples the 'holding of the torch' and the 'attempt to pick the plums' are, in a strictly instrumental sense, typical 'hands'-type activities. 'Feet' auxiliary selection in this case appears to be formulated, not instrumentally, but rather on a highly salient association with 'feet on the ground'.

'Mouth'

Verbal classification by the 'mouth' auxiliary marks verbs as performed instrumentally with the mouth, either the physical manipulation of objects by the tongue, teeth, lips or gums, or through the medium of speech.

'Mouth' selection in verbs like 'lick' and 'taste' are shown in 4-145 and 4-146.

4-145 yakay wuwu-yaga dingim -lak
excl dog -DEM 3sgMouth-lick
SU Pimp
Lookout! the dogs been licking it!

4-146 a-wedi ye -du -pe
A-small 2sgMouth-taste-Fut
cl SU Irr
Try and taste a little bit.

And the contrastive combination of 'mouth', 'hands' and 'feet' with the CVS -baty 'hold' is demonstrated below.

4-147 kukuk-nuwurr ngem -baty -ngirim
wait - a little 1sgMouth-hold-1sgSit
while SU Pres SU Pres
Hang on a minute, I'm in the middle of chewing.

4-148 e-ferri demim -baty -pagu -yenim
A-blue-tongue 3sgHands-hold-HITH-3sgGo
cl lizard SU Pres SU Pres
He's coming up holding a blue-tongue.

4-149 wanni -ngi-baty -tye
3plFeet -1sg-hold-Past
SU Pimp DO
They were kicking me.
In addition to the manipulable parts of the human mouth, 'mouth' also covers the instrumental use of the beaks of birds, as in 4-150 and 4-151 below.

4-150 wurr weyim -pi -ket bude nyinnin demim -wurity
grass 3sgMouth-head-cut nest ANA 3sgHands-make
SU Pres SU Pres
(Bush turkey) heaps up grass (with his beak) and in that way makes his nest.

4-151 e-men'gimen'gi dingim -mi-syarr -dim
A-grey 3sgMouth-eye-scatter-3sgSit
cl goshawk SU Pres SU Pres
The goshawk is scattering seed (as it feeds)

As a classifier of speech 'mouth' selection is found in verbs of 'storytelling', 'persuasion' and 'mistaken/false speech'. Consider the examples below.

4-152 nge -mbi-yilil -pe ngan'gi
1sgMouth-2sg -story-Fut story
SU Irr IO tell
I'll tell you a story

4-153 tyerrakul wakay ngem -purr -ket-nyine
talking finished 1sgMouth-bum-cut-FOC
SU Pres = cease
That's it ! I've finished talking now !

4-154 ngem -fi -ket were ngiminy-ne,
1sgMouth-Mp-cut brother 1sgSay -3sgM
SU Perf = lie SU Perf IO
I mistakenly called him 'brother'
epe yetyi-yirre ngumbumum-ne
BUT son-CORRECT 1dlincSay -3sgM
SU Pres IO
but you and me are supposed to call him 'son'.

4-155 weyim -ngiti-fi -gulgul
3sgMouth-1sg -Mp-stir
SU Perf IO redup
He stirred me up/ talked me into it.

4-156 ngara -ne -fi -pal -pe nge -Ø -ge -kubuk-pe
1sgPokeDtr-3sg-Mp-return-Fut 1sgMouth-3sg -belly- soak -Fut
SU Irr IO SU Irr DO =pacify
I'm going back to him, to settle him down.
'Poke', 'Slash' and 'Bash'

In discussing these three auxiliaries I want to return to the questions asked earlier regarding the shape, contact and trajectory of instruments wielded by an agent in effecting an action, for these issues form the central components of these three auxiliaries. I will discuss 'poke', 'slash' and 'bash' in terms of underlying shape, contact and trajectory schema.

'Poke'

Verbal classification by the 'poke' auxiliary entails activity effected instrumentally at the end point of a long thin cylindrical implement manipulated by the subject. Inextricably linked to this shape schema is a contact schema; that the end point of long thin implements are employed in an 'end-on' poking type of contact. 'Poke'-type implements have no significant surfaces other than their point. Unlike 'slash' and 'bash', there is no trajectory schema associated with the 'poke' auxiliary. A good prototype for 'poke' implements is the spear, but as shown in the examples below, digging sticks, painting sticks, firesticks, nit crackers\(^3\), spoons, fenceposts, screwdrivers and sewing needles are all implements conceptualised as having shape and contact schemas of the 'poke' type.

4-157 tyulut-ninggi dam -pawal
   hook -INST 3sgPoke-spear
   spear SU Perf
   He speared him with a hookspear.

4-158 amimbi manarrk dani -ngi-pi -dada-tye -dini
   nit nit eggs 1sgPoke-1sg-head-crack-Past-3sgSit
   SU ImpDO SU Imp
   She was cracking the nits in my hair for me.

4-159 palayin nga -pup-pe yenggi-ne
   firesticks 1sgPoke-rub -Fut fire -PURP
   SU Irr
   I'll rub the firesticks to start a fire.

4-160 malarrgu -ne wanni -ket-tye -waddi
   longnecked-PURP 3plPoke-cut-Past-3plGO
   turtle SU Imp SU Imp
   They were poking about for longnecked turtles.

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3A nit cracker 'milmilma' is a small stick, about 20 cms long, that is used in the Daly region to squash nit eggs in the hair, and for other cosmetic purposes such as scraping off dry sunburned skin or removing earwax.
They're erecting a fence.

I did it up with a screwdriver.

They're painting it now.

That several verbs involving the instrumental use of rope also select the 'poke' auxiliary, suggests that long thin implements need not necessarily be rigid. Although rope is not normally employed in a poking fashion, it is long and thin and does have salient end points that are typically the part of it that is manipulated in tying objects up.

Coil the twine up!

He bandaged (my arm for me)

The salient 'point' of an implement will typically be its 'front' end, e.g. the sharpened end of of a digging stick or the fashioned tip of a spear, but 'poke' classification also encompasses the butt end of long thin implements, and, as the example below shows, the exposed ends of a spear broken at a point along its length.

He's rejoining the (broken) spear shaft.

That the focus here is on the exposed endpoints, as opposed to the length of the shaft, is confirmed by the incorporation of the bodypart 'mouth' in reference to the mouth-like rim created by the cross-sectional sever through the hollow bamboo shaft.
In addition to implements of material culture, 'poke' classification can also embrace certain bodyparts where these share the long thin shape schema, and are also manipulated within the end-on poking contact schema. As shown in the following examples, bodyparts that can be viewed in this way include: arms, legs, breasts/nipples, beaks, fingers, penis, whiskers, the proboscis of a mosquito etc.

4-167 falmi wunu wur-werr -tyi, tyi dangim-pawal-nyine
woman that F -ASSOC-breast breast 3sgPoke-spear-FOC
cl
SU Pres
That pubescent woman is getting breasts now.
(lit: ...is being speared by breasts (from the inside out)).

4-168 yibe nga -nyi-nguru-waty-pe
later 1sgPoke-2sg-penis-consume-Fut
SU Irr DO = fuck
I'm gonna fuck you later.

4-169 tyerr-wasyan dam-nga-pawal
mouth-hair 3sgPoke-1sg-spear
SU Perf DO
I've got a beard now.
(lit: whiskers have speared me)

4-170 a-dawurr-ninggi dangim-tal-pi wakay
A-butcher -AGENT 3sgPoke-tap-head finish
cl bird SU Pres
The butcherbird tapped (the finch) on the head... finished!

4-171 a-funggi-ninggi warrim-ngi-dap
A-mosquito-AGENT 3plPoke-1sg-stab
cl SU Pres DO
Mosquitos are biting me.

4-172 membirr dangim-tyerr-dim
child 3sgPoke-mouth-3sgSit
SU Pres SU Pres
She's breastfeeding the child.

4-173 dede ngayi nga -mbi-du -pe
estate 1sg 1sgPoke-2sg -touch-Fut
PRO SU Irr IO
I'll point out my country to you (with my arm).

There is a minor but distinguishable subset of 'poke' verbs concerned with activities effected from a position of physical or psychological dominance and control. As shown in the examples below, verbs of 'giving people things', 'leaving people behind', 'teaching people things' etc. are
constructed with the 'poke' auxiliary, and morphologically encoded as 'controlling' by the presence of the manipulative verb root prefix -fi-.

4-174 nem kinyi ngan'gi wariny -ngi-fi -mi -tyatit
   3sg this language 3sgPoke-1sg-Mp-Val-place
   PRO SU Perf DO redup
   This bloke taught me his language.
   (lit: ...placed his language in me)

4-175 kinyi nga -nyi-fi -me -pe
   this 1sgPoke-2sg-Mp-hand-Fut
   SU Irr DO
   I'll give you this.

4-176 wuni-yirre ngarim - Ø -fi -wap
   there-CORRECT 1sgPoke-3sg-Mp-sit
   SU Pres DO
   I've left her sitting back there.

4-177 kinyi nga -nyi-fi -me -tyat ngunu
   this 1sgPoke-2sg-Mp-hand-place how about it
   SU Irr DO
   I'm leaving this in your care... alright?
   (lit: I'm placing this in your hands)

There is no clear evidence to suggest that the activity denoted by these verbs is conceived of in terms of either the 'Poke' shape or contact schema. Conceivably the use of the agents arms in these verbs of 'placing' and 'giving' could fall within the range of 'arm as long thin instrument' as discussed above. However none of these examples appear to fulfil the poking type of contact generally associated with instrumental 'Poke' verbs.

Additionally, there are several impersonal verbs, without recoverable agents, that are constructed with the 'Poke' auxiliary. These are also concerned with the notion of dominance and control, in that their patients are construed as being victims of events or emotions beyond their control.

4-178 dam-ngi-fi-derri-sul
   3sgPoke-1sg-Mp-back-arise
   SU Perf DO
   I was kept awake all night

4-179 dangim-ngi-ngini tyagan-nimbi-nawa
   3sgPoke-1sg-shudder what-CAUS-INDEF
   SU Pres DO
   I've got this creepy feeling...from something or other.
I'm horny for that woman over there.

I've wasted my time/ done something to no avail.
(lit: It has chest-cut me.)

Again, the semantic relationship between these verbs and the central instrumental 'poke' verbs remains unclear. As noted for impersonal 'hands' verbs, auxiliary selection in these 'poke' verbs is presumably based on processes of metaphor and mental imagery, the origins of which are contemporarily obscured by processes of lexicalisation and language change.

'Slash'

Verbal classification by the 'Slash' auxiliary marks activity effected instrumentally in terms of the following schema.

Shape schema- Like 'Poke', 'Slash' instruments are typically long and thinnish, but rather than having only an endpoint, they have a 'face' along their length. 'Slash' instruments can therefore be said to have breadth in addition to length. The kind of instruments that fall within 'Slash' classification include; paddles, flat-faced fighting sticks, brooms, knives and the palm of the hand.

Contact schema- The shape schema of 'Slash' instruments, being flat faced, allows for two types of contact. 'Slash' instruments like brooms (in sweeping), or the palm (in slapping), make two-dimensional contact with their undergoer through direct contact with the broad flat face. Other 'Slash' instruments, like knives and flints (in cutting), make a one-dimensional contact with their undergoer by virtue of the fact that it is their edge/blade rather than face through which contact is made. 'Slash' instruments, then, can be employed either edge-on or face-on.

Trajectory schema- A major component of 'Slash' is the notion of lateral trajectory. 'Slash' instruments, like shovels, paddles, fans etc., are swung through the air/water in an arcing trajectory. Similarly bladed instruments, like knives and flints, are not simply pressed against an object, but have to be wielded in a lateral sweeping motion to effect cutting.

In verbs with bodypart instruments, 'slash' typically covers the lateral sideswiping trajectory of the arms. The combination of 'slash' with the verb root -ta 'hit', as in 4-182 a), thus implies a stiff-armed roundhouse swing of
the arm, as opposed to a punch effected by extending the arm outwards in a linear trajectory, which would require the 'Bash' auxiliary (discussed below), as in 4-182 b).

-182 a) ngu -nyi-ta-pe  
1sgSlash-2sg-hit-Fut
SU Irr DO
I'll swipe you!

b) ngebe -nyi-da-pe  
1sgBash-2sg-hit-Fut
SU Irr DO
I'll punch you!

However it seems to be the sideways movement of the whole body that determines the selection of 'slash' in 4-183.

4-183 ngumbu -ne-madi-baty-pe  
1dlinCSlash-3sg-chest-hold-Fut
SU Irr IO
Let's get out of his way!

4-184 a) and b) below contrast the combination of 'slash' and 'hands' with the CVS -me-syirr 'extinguish'.

4-184 a) peke ngeriny-me -syirr  
tobacco 1sgSlash-hand-scratch
SU Perf = extinguish
I stubbed out the cigarette (by squishing it under my thumb).

b) yenggi ngum -me -syirr  
fire 1sgSlash-hand-scratch
SU Perf = extinguish
I put out the fire (through a 'slash' activity - beating it with branches/a wet hessian bag etc.).

The flat shape, edge or plane contact, and sweeping trajectory associated with 'slash' selection, can be seen in the following examples.

4-185 gagu ngu -mbi-ket-pe  
animal 1sgSlash-2sg-cut -Fut
generic SU Irr IO
I'll cut you a slice of meat.

4-186 yenggi yu -filfil-Ø  
fire 2sgSlash-fan -IMP
SU Irr redup
Fan the fire!

4-187 elifela deminy -pat dede wum -madi-fuy  
early 3sgHands-arise camp 3sgSlash-chest-sweep
SU Perf SU Perf
She got up early and swept camp.
He didn’t close the door.

You two bale out the boat!

(Crocodiles) dig in the sand, then lay their eggs.

Verbs expressing the movement of wind, or states resulting from the effect of wind, also select the 'slash' auxiliary. This selection would appear to be predicated on the conceptualisation of wind as a meteorological feature sweeping across the ground in a lateral motion, akin to such activity as sweeping, wiping etc, and is consistent with the trajectory schema of instrumental 'slash' verbs. Several wind-agentive 'slash' verbs are given below.

The dry season wind has split my lip on me.

This meat has dried out (from exposure to the wind) (lit: It (wind) has dried out this meat.)

My trousers are starting to dry now (from exposure to the wind) (lit: It (wind) is starting to dry my trousers now.)

Correspondingly, rain is associated with the up-and-down linear trajectory schema of the 'bash' auxiliary. Thus the combinations of 'slash' and 'bash' with the CVS -nguru-ket 'cease' are understood to refer to the cessation of wind and rain, respectively.

The wind has just let up.
Finally, there are a few impersonal (agentless) verbs constructed with 'Slash'.

\[ \text{wumbun-ngi-gurrgurr} \]
\[ 3sg\text{Slash} \quad \text{1sg} \quad \text{stir} \]
\[ \text{SU Pres} \quad \text{DO redup} \]
\[ \text{I have diarrhoea.} \]
\[ \text{(lit: It is stirring me)} \]

'Bash'

Classification by the 'Bash' auxiliary, like 'Poke' and 'Slash', is concerned primarily with instrumentality. Several 'bash' components can be identified, including shape, contact and trajectory schema. For the respective activity types selecting the 'Poke' and 'Slash' auxiliaries, we have noted that all three schemas tend to correlate. Thus for a 'Poke' verb like 'spear', the long thin cylindrical shape of the implement is inextricably bound to the end-on point contact. Likewise for a classic 'Slash' verb like 'slice', the long flat shape of the knife is bound to both the blade contact and the slashing trajectory. For 'Bash' however, although shape, contact and trajectory schemas are available, logical semantic linkages between them are not always apparent. For many 'Bash' verbs the selection of the 'Bash' auxiliary can only be formulated in terms of a single schema, without satisfying the criteria for all the components.

**Shape schema** - 'Bash' instruments are heavy and rounded, having a large surface area. In contrast to long thin spears and long flat knives, this shape schema marks clubs, axes, rocks and hammers as the typical instruments of 'bash' verbs.

**Contact schema** - Consistent with the broad surface area and rounded shape of 'Bash' implements, their contact with objects is a blunt full contact, as opposed to a blade or point type contact. 'Bash' contact typically smashes, indents or bruises a surface rather than pierces or cuts it. Note that axes, despite having a bladed-type edge, and despite the fact that their chopping contact has a cut-like effect, are classified as blunt rounded instruments.

The rounded shape and blunt contact of 'Bash' can be seen in the following examples.
I was chopping the log with an axe.

He broke the stick by dropping a rock on its middle.

Hammer the nail like I do it.

Another identifiable component of 'Bash' is an up-and-down, backwards-and-forwards trajectory, as opposed to the lateral sideways trajectory of 'slash'. The association of rain with verticality has already been noted in the discussion of 'Slash' above. Activity within a broadly vertical trajectory schema can also be seen in the examples below.

He fell from the tree.

Pull your trousers up!

These seedlings are sprouting up now.

Vertical direction alone is not the critical element of 'bash' trajectory. More importantly, 'bash' activities are carried out by movement backwards and forwards along a single linear trajectory. While the direction of this line may be vertical, as in the above examples, backwards/forwards movement along a line parallel to the ground, as in punching, hammering, chopping etc. is equally acceptable. Note that the trajectories of both 'bash' and 'slash' can therefore be parallel to the ground. The difference between them is that 'bash' has a linear trajectory, whereas 'slash' has an arcing trajectory.

In addition to the typical 'bash' implements listed above, note that the typical 'bash' instrumental bodyparts include the fist, teeth and
belly/chest. The 'bash' classification of fist stems from its compatibility with the shape schema. Fists, like axes and clubs, are the large, rounded, blunt ends of things. That teeth are 'bash' bodyparts stems from their compatibility with both the chopping contact schema and the up/down trajectory schema. Note that their conceptualisation as axe-like chompers rather than knife-like cutters would appear to be based on the function of the side molars rather than the front incisors. The belly and chest, used instrumentally as in 4-204 below, are compatible with the notion of 'a broad extended two-dimensional surface'. The front of the body is also seen to be instrumentally employed in verbs of confrontation and evoking emotional response (see 4-212 and 4-213). The 'bash' instrumentality of fists, teeth and belly/chest is demonstrated in 4-202 - 4-204 below.

4-202 wurrbum-wurrki-dada
   3nsBash  -3dl  -hit
   SU Perf  IO  redup
   They (dl) were punching each other

4-203 mumba bem -madi-pul wuntyerr
   path  3sgBash-chest-clear canegrass
   SU Perf
   He cut a swathe through the canegrass (with the front of his body).

4-204 yakay gubu -nyi-tasat-merrendi
   lookout  3sgBash-2sg-bite -LEST
   SU Irr  DO
   Lookout! It might bite you!

A further component of 'bash' which should be noted here is an underlying association with sexual activity. That is, verbs like 'make someone scream', 'get a headache' or 'insert', in the absence of particular instrumental information to the contrary, will tend to be interpreted as effected through sexual activity specifically, as opposed to other more typical 'bash' activities such as punching, hammering etc. Recall that the principle verb of sexual activity 'to fuck' is not a 'bash' verb, but rather is constructed with the 'poke' auxiliary.

4-205 dam -burri-nguru-waty
   3sgPoke-3dl  -penis -consume
   SU Perf  DO  =fuck
   He fucked them both.
Here the penis as bodypart instrument clearly fills the long thin cylindrical shape schema, and the poking contact schema attributed to 'poke' classification. So on what sort of imagery, we may ask, is the sexual association of 'bash' constructed? Firstly, the penis-as-bodypart-instrument imagery still holds good here, for the classification of the penis, not as a long thin spear-like instrument, but as a club-like instrument with a distinct 'head', is encountered elsewhere (c.f. 3.5.3.5).

4-206 waga ngudum-pi -syarr
  piss  1sgShove-head-squeeze
  SU Perf
  I cut off my piss in midstream (by squeezing the 'head' of my penis).

4-207 ngudum - Ø -pi -dum asyi
  1sgShove-3sg-head-bury  vagina
  SU Perf  DO
  I was 'chockablock' up her vagina.

Secondly, contact made by the broad flat expanse of the belly/chest, which as noted above (e.g. 4-203), is a type of bodypart-instrument that is covered by 'bash', is clearly a salient feature of some types of sexual activity. Thirdly, the repetitive up-and-down, backwards-and-forwards trajectory schema of 'bash' may also constitute imagery on which the sexual association of 'bash' is formulated.

Another group of verbs appears to select 'bash' solely on the basis of 'broad extended surface contact', without fulfilling the trajectory or shape schema. These are verbs in which a film or cover, having a broad two-dimensional expanse, is laid over or removed from an object. Note that in most of these examples the incorporation of -derri 'back' contributes to the focus on activity at the broad external surface of the undergoer.

4-208 calico-ninggi ngurrbum-derri-lit musyulng kuru-merrendi
  -INSTR 1plexBash -back -cover swag  water-LEST
  SU Perf
  We (plex) covered the swags with a calico, so they they wouldn't get wet.

4-209 kuderri bengin -derri-lit ngani-bafun-gimi
  NgK  billabong  3sgBash-back-cover  COMP-dust -SEMBL
  SU Pres
  There's a film of something like dust over the billabong.
  (lit: It is covering the billabong over with something like dust.)
4-210 nem wunu bengim -dudu damuy dengini
3sg there 3sgBash-spotty face body
PRO SU Pres
That bloke's covered in spots, his face and his whole body.

4-211 yubu -derri-pul -pe yenggi padudu yimu -wa -pe
2sgBash-back-clear-Fut fire potato 2sgSnatch-pick-Fut
SU Irr SU Irr up
Clear the covering of coals off the fire, so you can pick out the potatoes.

Another minor subset of 'bash' verbs are the causative emotion verbs 'to make happy' and 'to make angry'. These verbs, set out in 4-212 and 4-213 below, both incorporate the bodypart -ge 'belly', which is regarded by Ngan'gityemerri speakers as the seat of the emotions. The selection of the 'bash' auxiliary in these verbs would appear to be formulated on the notion of confrontation between the facing belly/chest orientation of two people.

4-212 bengim -ngi -ge -dum men'gen -ngiti
3sgBash-lsg-belly-bury 3sgArrive-lsg
SU Pres DO =make happy SU Perf IO
He's made me happy (by) coming to see me.

4-213 yubum -ngi-ge -pek-nyine-pefi
2sgBash-lsg-belly-drip-FOC -INCH
SU Pres DO =make angry
You're starting to make me wild now!

To exemplify the contrastive shape, contact and trajectory schema of 'poke', 'slash' and 'bash', consider the examples below in which each is combined with the verbroot -gurrgurr 'to miss an attempted contact'. The interpretations attributable to these examples, although context dependent, are revealing of the type of activity that was attempted.

4-214 ngariny-Ø -gurrgurr
1sgPoke-3sg-miss
SU Perf DO
I missed it.
e.g. I tried to spear it , but I missed
poke it
stab it
prod it
twist it with a screwdriver etc.
4-215  ngum-Ø-gurrgurr
   1sgSlash-3sg-miss
   SU Perf  DO
I missed it
   e.g. I tried to slap it with my palm, but missed.
       whip it with a stick/spear
       sweep/wipe it
       paddle (but missed the water)
       close the door
       etc.

4-216  ngubum-gurrgurr
   1sgBash-miss
   SU Perf
I missed it.
   e.g. I tried to punch it, but I missed
       shoot it
       bash it with a rock
       club it
       etc.

Before moving on to examine the other major instrumental auxiliaries, I want to make some comments on the nature of instrument classification. Firstly, by contrasting the 'Poke', 'Slash' and 'Bash' auxiliaries we have revealed three categories of instrument type. 'Poke' instruments are long and thin, and make contact at their end point. 'Slash' implements have a flat surface associated with their length, and make contact with either the face or edge of that surface. 'Bash' implements are, or have a salient part that is, large and rounded, and make contact in a blunt bashing manner.

The arsenal of traditional weapons and tools used by Ngan'giwumirri and Ngan'gikurunggurr people fall fairly clearly within the distinctive parameters of these categories.
- Spears, digging sticks, nit crackers, threading sticks, canoe poles and fire sticks all fit the 'poke' shape, contact and trajectory schemas.
- Fighting sticks, hand-held boomerangs, canoe paddles, flints and knives all fit the 'slash' shape, contact and trajectory schemas.
- And clubs, fists, rocks and axes fit the 'Bash' shape, contact and trajectory schemas.

Secondly, it should be noted that the kind of implement classification that we can see operating amongst these instrumental auxiliaries, is found nowhere else in the lexicon. The system of nominal classification (c.f. 5.2.7 to 5.2.11) broadly divides hand-held implements from spears, and further divides spears into subcategories. The schema I have invoked to elucidate
the instrumental auxiliaries; shape, contact-type and trajectory, play no part in the nominal classification of weapons and tools in Ngan'gityemerri.

Thirdly, the categorisation of any implement is based partly on inherent physical properties, but also on the particular part of an implement that is functionally salient. The principal underlying allocation of implements to these categories is based therefore on what is perceived to be their typical function. However the use of any implement in an atypical manner, which conflicts with its associated schema, will generally require classification by a different auxiliary. A spear for instance, which is a typical 'Poke' implement having a highly salient end point, can be wielded atypically by being held in the hand and slashed through the air in a whipping motion. Such an activity is shown in 4-218 below. Note that such a highly marked activity type, in contrast to the typical spear use in 4-217, requires overt instrumental case marking.

4-217 wamanggal ngariny-pawal
   wallaby       1sgPoke-spear
   SU Perf
   I speared a wallaby.

4-218 wamanggal ngum-ta yawul-ninggi
   wallaby       1sgSlash-hit spear-INSTR
   SU Perf
   I hit a wallaby with a spear (swung like a cane).

Likewise a bladed implement like a knife is a typical 'Slash' implement. Within Ngan'gityemerri instrumental auxiliary classification it has this status because proto-typically its flat face is used edge-on in a swinging cutting motion. Knives of course can be wielded differently. A stabbing action, piercing something by poking a knife end-on into it, would conflict with the 'Slash' schema and require marking by the 'Poke' auxiliary. Again, as 4-219 shows, the markedness of this activity requires overt instrumental case-marking.

4-219 marrimarri-ninggi ngariny-bang
   knife         -INSTR 1sgPoke-pierce
   SU Perf
   I stabbed it with (the tip of) a knife.

Finally, to complete the discussion of 'Poke', 'Slash' and 'Bash', I will look at how this instrument classificatory system has coped with the introduction of one particular non-traditional implement. Within the parameters of traditional instrument classification, as exemplified by the
shape/contact/trajectory schema, the use of a chisel (as used in conjunction with a hammer) is a completely anomalous activity type. For a chisel, like a screwdriver, is long and thin and objects are manipulated at its endpoint. However chisels have blades that slice, and this violates the poking contact schema of 'poke' classification. Likewise the slicing blade of a chisel fits the contact schema of 'slash', but violates the 'slash' sweeping trajectory schema by being used end-on. Ngan'gityemerri speakers have resolved this anomaly by selecting the 'bash' auxiliary. Their traditional classificatory system requires that 'hammering a chisel' be viewed as being like 'hammering a nail'. The chisel must be treated as undergoer, not instrument. Thus one can 'hammer a chisel' in Ngan'gityemerri, but one cannot 'chisel wood'.

4.5.1.3 'Shove' and 'Heat'

'Shove''

Where 'Poke', 'Slash' and 'Bash' are concerned with the details of contact and limb movement, the focus of 'shove' is not so much on these 'means of execution' as on the 'effect of execution'. 'Shove' classifies activity that affects its undergoer by projecting it into motion, or in some way re-arranging its spatial configuration. The undergoers of 'shove' verbs can always be said to have been affected by being 'moved'. Consider the examples below.

4-220 musyulng wudum-ngiti-fityi
swag 3sgShove-1sg-roll
SU Perf IO
He rolled up my swag for me.

4-221 mudiga wudum -syi -wul
car 3sgShove-nose-return
SU Perf
He turned the car for home.

4-222 marrawuk-ninggi wudumbun-pi -wulil
dry season -INSTR 3sgShove -head-return
wind SU Pres redup
The dry season wind is blustering (the clouds) back and forth.

4-223 wudumbun-tyerr -ket mudiga nyinyi
3sgShove -mouth-cut car 2sg
SU Pres PRO
He's bogged your car.
He swung the goanna round 'n round and knocked it on the ground.

They're building a fence.

Stick it up high in a fork (of the tree).

They brought me back home.

Turn it over!

The focus of 'shove' is contrasted with 'poke' and 'hands' in the pairs of verbs in 4-229 and 4-230 below.

I prodded it (with a stick).  
(Focus on instrumental contact with long thin implement)

I gave it a shove.  
(Focus on projection of undergoer)

I rolled a cigarette.  
(Focus on the manipulation of the undergoer in the hands)
b) ngudum -fityi musyulng
   1sgShove-roll   swag
   SU Perf
   I rolled up the swag.
   (Focus on the spatial re-arrangement of the undergoer)

For highly transitive verbs then, 'Shove' acts as a type of default auxiliary, ignoring the mechanical details of contact and limb movement, focussing instead on the 're-arranged' status of the undergoer.

'Heat'

Classification by the 'Heat' auxiliary marks actions as performed through the instrumental use of heat. The example below shows the contrastive combination of the 'Heat', 'Hands' and 'Feet' auxiliaries with the CVS -tittit 'straighten'.

4-231  a) yawul nginem-tittit-ngirim
   spear  1sgHeat-straighten-1sgSit
   SU Pres   SU Pres
   I'm straightening the spear (by bending it after having warmed it in sand that has been heated by being shovelled onto hot coals).

b) yawul ngerim-tittit-ngirim
   spear  1sgHands-straighten-1sgSit
   SU Pres   SU Pres
   I'm straightening the spear (by bending it using my hand as fulcrum).

c) yawul nganam-tittit-ngirim
   spear  1sgFeet-straighten-1sgSit
   SU Pres   SU Pres
   I'm straightening the spear (by bending it using my foot as fulcrum).

The notion of heat, central to this auxiliary, should be understood as primarily the heat given off by any form of fire, including the sun, and extended to sun-associated forms of heat such as solar power (but see 4-242 and 4-243 a) below). Given the central role that fire plays in Aboriginal life, higher animate controlled usage of 'Heat' typically involves fire-as-instrument.

4-232 peke yine -ngiti-tyerr -ket-Ø
   tobacco 2sgHeat-1sg -mouth-cut-IMP
   SU Irr   IO
   Light me a smoke!
I'll warm the meat up for you.

I'll boil the water.

Activities such as starting a fire by concentrating the sun's rays through a piece of thick glass, or placing clothes in the sunshine to dry them, are examples of the controlled instrumental use of the sun's heat.

Dry them in the sunshine!

The 'Heat' auxiliary stands apart from all the other instrumental auxiliaries in showing a split between the marking of the roles of heat-as-instrument and heat-as-agent. For verbs involving higher animate controlled instrumental use of heat, there exists the normal full paradigm of 'Heat' subject-auxiliary sequences. However, verbs involving the more autonomous heating processes effected through the non-controlled combustion of fire and the sun, are marked by a distinct set of subject-AVR sequences. These latter sequences are obviously restricted to 3rd person singular forms. In purely paradigmatic terms, rather than treat this as two separate auxiliaries, one of which consists simply of 3sg forms, I have chosen to view this phenomenon as a single auxiliary with a formal split among the 3sg forms between 'higher animate controlling agents' and 'heat as agent'. The full 'heat' subject-auxiliary paradigm showing this split, can be found in appendices A and B.

3rd singular higher animate controlled instrumetal heat use is contrasted with heat-as-agent in the examples below.

He's boiling water.

He's boiling water.

The water is boiling.

(The heat of the fire is boiling the water)
He melted the fat (intentionally, by placing it near the fire/in the sunshine).

The sun's heat has melted our butter.

Construing the agent as 'Heat', as opposed to a higher animate controlling 'Heat', has the detransitivising effect of negating agentive focus altogether. Although formally transitive, unless, as in 4-237 b), the heat of the sun or fire is overtly agent-marked, heat-as-agent verbs are generally interpreted without agent focus. Thus Ngan'gityemerri speakers would gloss 4-236 b) as 'the water is boiling' rather than 'the fire is boiling the water'. Further examples of heat-as-agent verbs are given below.

The grass is burning this way now.

The billabong is drying out now.

Keep on wetting (the cement) so it'll dry out slowly, should it dry out quickly, it would sort of crack up.

The meat is cooked now.

Finally, having stated above that 'Heat' is primarily viewed as the property of fire and sun, there are a handful of verbs for which the selection of the 'Heat' auxiliary appears to be based on a less specific conceptualisation of heat. The stinging heat-like sensation associated with a 'slap on the
'Cheek' appears to be viewed as an instrumental usage of 'Heat' in 4-242 below.

4-242 dineny-ngi-tyamu-baty
3sgHeat-1sg-cheek-hold
SU Perf DO
He slapped me on the cheek.

In addition, 'anger' appears to be viewed as a kind of 'Heat' in 4-243 a) below, where it is contrasted with the same verb specifically marked as sun-agentive in 4-243 b).

4-243 a) wayim -ngi-baty ki -ne
3sgHeat-1sg-hold fight-PURP
SU Pres DO
I'm hot for a fight ('Anger?' is heating me up for a fight)

b) wayim -ngi-baty fidi -ninggi
3sgHeat-1sg-hold sun's-AGENT
SU Pres DO heat
I'm sunburned/sunstruck.

4.5.1.4 The Minor Transitive Complex Auxiliaries 'Suck','Pull' and 'Snatch'
These three auxiliaries have highly limited capacities to productively combine with verbroots. 'Suck' has been recorded with only three CVS, 'Pull' with only five, and 'Snatch' also with five.

'Suck'
Classification by the 'suck' auxiliary marks activity in which things are ingested or sucked in. Where the focus of the 'mouth' auxiliary was primarily on the manipulation of objects by the teeth, tongue, lips etc, the focus of 'suck' is on the consumption of objects. The undergoers of 'suck' verbs can be said to have 'disappeared' and been 'used up'. The most frequently encountered 'suck' verb is 'suck#consume', a general verb of ingesting, covering eating, drinking, smoking etc.

4-244 gagu miyi kuru ngumbusyiny -waty
animal plant liquid 1plincSuck -consume
generic food generic SU Perf
We all ate meat, vegies and (drank) beer.

'Suck#biny' describes the activity of a baby sucking milk from a breast, or the sea sucking tidal water from a river.
4-245 tyi wusyum-biny
breast(milk) 3sg Suck -suck
SU Pres
She's sucking at the breast.

4-246 ngambaty wusyum-biny -nyine
tide 3sg Suck -suck-FOC
SU Pres
The tide is low now.
((The sea) has sucked the tide out now)

And 'suck#mouth#biny' describes 'kissing'.

4-247 wurringgi-tyerr -binybiny
3ns Suckdl-mouth-suck
SU Pres SU redup
They're kissing.

'Pull'
All five verbs selecting 'pull' involve pulling, pushing, or extension of limbs.

4-248 a-ngekin ngisyeny-ge -wurr
A-shit 1sg Pull -belly-enter
cl SU Perf
I pulled its guts out.

4-249 disyeny-ngi-firr -tit
3sg Pull-lsg-foot-tug
SU Perf DO
It tugged at my foot.

4-250 disyem-ge -medada membirr-nyine wubu-baty-pe
3sg Pull-belly-labour child -FOC 3sg Bash-fall-Fut
SU Pres SU Irr
She's pushing it in labour, the child will be born soon.

4-251 wari -fi -mi-tyatit-pe dengini wisye -burrburr-pe
3sg Poke-Mp-Val-place-Fut body 3sg Pull-stretch -Fut
SU Irr =teach SU Irr redup
(The physiotherapist) will teach her to stretch her body.

4-252 ngisyeny-ngan-derri-tal
1sg Pull -LOC -back -crack
SU Perf REL
I cracked my vertebrae (by stretching my back).
'Snatch'

The central component of 'snatch' classification is the notion of snatching at, or latching onto, something. Where the focus of the 'hands' auxiliary is on the stative holding of something within the grasp of the hand, the focus of 'snatch' is on the dynamic act of grasping something. The five 'snatch' verbs occurring in my data are listed below.

4-253 fepi yimu -wa -Ø
rock 2sgSnatch-pick-IMP
   SU Irr up
Pick up that rock!

4-254 yimu -ngi-garri-wat
2sgSnatch-1sg-leg -hook
SU Perf DO
You tripped me up (by snatching at my leg with your hand).

4-255 wurrmu -ngi-kal
3plSnatch-1sg-chase
SU Perf DO
They chased and caught me.

4-256 yimu -tyerr -wurr -Ø wasyanderri
2sgSnatch-mouth-enter-IMP hessian
   SU Irr sack
Tie up the mouth of the hessian sack!

4-257 adiny menggin -ngi-garri-tyap
leech 3sgSnatch-1sg-leg -stick
   SU Pres DO
A leech is stuck to my leg.

The verb 'snatch#pick up' in 4-253 above, forms the basis of several other common verbs. Firstly, as a phrasal verb with the nominal dege 'belly' (seat of the emotions) it forms the verb 'to like', as in the examples below.

4-258 minbe dege tyawurru yumunggin-wa,
Neg belly today 2sgSnatch -pick
   SU Pres up
You may not like (school) now,
epi yibe dege yimu -wa -pe
BUT later belly 2sgSnatch-pick-Fut
   SU Irr up
but you'll get to like it later.
Secondly, the bodyparts 'ba 'arm' and 'me 'hand' are incorporated into 'snatch#pick up' as lexical compounds with the verb root -wa. As noted elsewhere (c.f. bodyparts section), incorporated -ba carries, in addition to its literal interpretation, a strong sense of directing people (especially children) in a nurturing caring way. Both senses are evident in 4-260, and the non-literal in 4-261.

4-260 membirr-weti ngiminggin-Ø -ba -wa
child -small 1sgSnatch -3sg-arm-pick
SU Perf DO up
I picked the small child up.

4-261 wa-magurrerri kidin fagarri yani -ngini
M-widower year two 2sgGo-Fut
cl SU Irr
You should stay a widower for about two years,
falmi yeyi yimu -ba -wa -ngini
woman other 2sgSnatch-arm-pick-Fut
SU Irr up
and then take another wife.

The lexical incorporation of -me 'hand' into the verb 'snatch#hand#pick up' in addition to its literal interpretation as 'to pick up from the hand', also means 'to catch onto something/to become aware of something'.

4-262 ngan'gi ngayi minbe-tye wumu -ngi-me -wa
words 1sg Neg -Past 3sgSnatch-1sg-hand-pick
PRO SU Irr DO up
She didn't catch on to what I said.

Additionally 'snatch#hand#pick up' can mean 'to unquestioningly accept someone's words/actions at face value', as shown in the examples below.

4-263 minbe-pagu yumu-ngiti tyagan-ne,
Neg -HITH 2sgSay-1sg what t-PURP
SU Irr IO
Don't ask me why,
tyepe ngan'gi ngayi yumu -ngi-me -wa
JUST word 1sg 2sgSnatch-1sg-hand-pick
PRO SU Irr DO up
just accept what I tell you.
4-264 apma yi - Ø gagu awakul wumunggin-ngi-me -wa
silent 2sgSit -IMP animal fish 3sgSnatch -1sg -hand-pick
SU Irr generic SU Pres DO up
Sit quietly! The fish are accepting me.
(i.e. The fish are not yet suspicious of me.)

4.5.2 The 'Detransitivised' Complex Auxiliaries

In addition to the 21 auxiliaries discussed so far, the Ngan'gityemerri auxiliary system includes a subgroup of ten auxiliaries that are the detransitivised reflexes of established auxiliaries. While there are few formal similarities, in terms of their semantics each of these ten auxiliaries can be linked to one of the auxiliaries we have already examined. Three are reflexes of the bodypart instrumental auxiliaries 'Hands', 'Feet' and 'Mouth'. Five are reflexes of the instrumental auxiliaries 'Poke', 'Bash', 'Shove' and 'Heat'. The remaining two are reflexes of the 'Say' and 'See' simple auxiliaries.

The 'detransitivising' nature of these auxiliaries requires some comment. All verbs employing these auxiliaries are formally intransitive, being unable to cross-reference their undergoers as direct objects. Being primarily reflexes of major instrumental auxiliaries ('Hands', 'Feet', 'Mouth', 'Poke', 'Bash', 'Shove' 'Heat' etc.) verbs formed with these detransitivised auxiliaries involve activity by the subject that is directed towards a part/whole of him/herself. This reflexive interpretation of detransitivised auxiliary selection is shown in the following two examples. 4-265, contrasts 'Shove' with 'ShoveDtr'. In 4-265 b) it is the whole of the subject that is also the 'undergoer' of the activity. 4-266, contrasts 'Hands' and 'HandsDtr'. In 4-265 b) it is a part of the subject that the activity expressed in the verb is directed towards.

4-265 a) ngudum -fel ball
1sgShove-bounce
SU Perf
I bounced the ball.

b) ngudeny -fel
1sgShoveDtr-bounce
SU Perf
I jumped.
(lit: I bounced myself.)

4Walsh notes that the Murrinh-patha auxiliary verb system also includes a subclass of auxiliaries that are 'of the reflexive type'(Walsh 1989:2). As is the case in Ngan'gityemerri, it seems that in Murrinh-patha the encoding of reflexivity is handled in two separate ways; inherently within the subclass of reflexive auxiliaries, and by overt morphological marking on those verbs selecting the remaining auxiliaries. It is unclear whether the Murrinh-patha 'reflexive' auxiliaries are the reflexes of major transitive auxiliaries as they are in Ngan'gityemerri.
4-266 a) walipan ngeriny -yerr
        rag    1sgHands-soak
        SU Perf
       I soaked the rag.

b) ngemeny -me -yerr
    1sgHandsDtr-hand-soak
    SU Perf
    I soaked my hands (in order to remove the flour stuck to them).

The 'self-directedness' conveyed by detransitivised auxiliary selection is most clearly demonstrated by pairing them with the auxiliaries of which they are reflexes. The sections below contrast such pairs for each auxiliary.

'See Dtr'

4-267 a) naga ngayi minde dinyingging-ngi-kerrety
        husband 1sg Neg 3sgSee -1sg -grasp
        PRO SU Pres DO
       My husband doesn't look after me.

b) ala ngatya yenim-burki-pirr
    mother father 3sgGo -3dl -leave
    SU Pres IO
    me -nem-nyine dinyerrem-kerrety
    hand-3sg -FOC 3sgSeeDtr -grasp
    PRO SU Pres
    He's left his mother and father, he's looking after himself now.

'Hands Dtr'

4-268 a) ngeriny -Ø -syirr
        1sgHands-3sg-scratch
        SU Perf DO
        I scratched him.

b) ngemeny -syirr
    1sgHandsDtr-scratch
    SU Perf
    I scratched myself.

4-269 a) menyirr nganimuy-nide deminy -dum
        sand soft -LOC 3sgHands-bury
        SU Perf
        He buried it in the soft sand.
b) gagu aniyen a-yaga menyirr nganimuy-nide
meat A-sand A-that sand soft -LOC
cl frog cl
demem -dundum-yenim
3sgHandsDtr-bury -3sgGo
SU Pres redup SU Pres
The sandfrog, that one that habitually buries himself in
the soft sand.

4-270 a) ngeriny -Ø-pul
1sgHands-3sg-wash
SU Perf DO
I washed her.

b) ngemeny -pul
1sgHandsDtr-wash
SU Perf
I washed myself

4-271 a) ngeriny -Ø-madi-baty
1sgHands-3sg-chest-hold
SU Perf DO
I held him by the chest.

b) ngemeny -madi-baty
1sgHandsDtr-chest-hold
SU Perf
I folded my arms across my chest.
(lit: I held myself by the chest.)

4-272 a) yerr -ba ngeriny -pal
Tree-arm lsgHands-break
cl SU Perf
I broke off a branch.

b) ngemeny -nintyi-pal
1sgHandsDtr-knee -break
SU Perf
I knelt down.
(lit: I broke myself at the knees.)

'Mouth Dtr'
4-273 a) wuwu weyim -lak
dog 3sgMouth-lick
SU Perf
The dog licked it.

b) wuwu diweny -firr -lak
dog 3sgMouthDtr-foot-lick
SU Perf
The dog licked its (own) paw.
4-274 a) weyim -ngiti-fi -gulgul
3sgMouth-1sg -Mp-stir
SU Perf IO redup
He talked me into it.

b) diweny -fi -gulgul
3sgMouthDtr-Mp-stir
SU Perf redup
He psyched himself up/talked himself into it.

'Poke Dtr'

4-275 a) ya -Ø-fi -gimi-tyat -Ø
2sgPoke-3sg-Mp-side-place-IMP
SU Irr DO
Put it down on the side!

b) minbe yarra -fi -gimi-tyat -Ø
Neg 2plPokeDtr-Mp-side-place-IMP
SU Irr
Don't all sit on the one side,
ngumbudu -Ø -madi-fili-merrendi keninggisyi
1plincShove-3sg-chest-roll-LEST canoe
SU Irr DO
lest we roll the boat over!

4-276 a) fi ngariny-Ø -fi -dudu
twine 1sgPoke-3sg-Mp-coil
SU Perf DO
I coiled the rope up.

b) ngarany -fi -dudu
1sgPokeDtr-Mp-coil
SU Perf
I curled myself up (into foetal position).

4-277 a) ngariny -Ø -pek durrmu
1sgPoke-3sg-drip dot style
SU Perf DO painting
I painted him up.

b) ngarany -pek durrmu
1sgPokeDtr-drip dot style
SU Perf painting
I painted myself up.

4-278 a) ngariny -Ø -gu-baty da-ba
1sgPoke-3sg-? -hold Bp-arm
SU Perf DO cl
I bandaged his arm.
b) \textit{ngarany -gu-baty da-ba}  
\textit{1sgPokeDtr-? -hold Bp-arm}  
\textit{SU Perf DO cl}  
I bandaged my arm.

'Bash Dtr'  
The 'BashDtr' auxiliary has only been recorded with a singular subject in a single example.

4-279 a) \textit{beyim -dirr -nyine}  
\textit{3sgBashDtr-teeth?-FOC}  
\textit{SU Pres}  
He's died now.

Examples with non-singular subject marking entail reciprocal 'Bash' activity, as in 4-280.

4-280 a) \textit{werrbemgu-dada}  
\textit{3nsBash dl -hit}  
\textit{SU Pres SU redup}  
They (dl) are punching him.

b) \textit{werrbingi -dada}  
\textit{3nsBashDtr dl-hit}  
\textit{SU Pres SU redup}  
They (dl) are punching each other.

'Shove Dtr'  
The 'shove' auxiliary stands apart in having two detransitivised auxiliaries that are reflexes of it. Labelled 'ShoveDtrD' (dynamic) and 'ShoveDtrS' (stative), these both share the semantics of 'Shove', but differ in terms of aspect and dynamicity. The dynamic reflex of 'shove' marks the 'self directedness' of those 'Shove' verbs that express dynamic, and typically also punctual, activities. 'Shove' and ShoveDtrD' are contrasted in the examples below.

4-281 a) \textit{mudiga ngudum -Ø -madi-fili}  
\textit{car 1sgShove-3sg-chest-roll}  
\textit{SU Perf DO}  
I rolled the car.

b) \textit{mudiga wudeny -madi-fili -ngidde}  
\textit{car 3sgShoveDtrD-chest-roll-1sg}  
\textit{SU Perf IMPL}  
The car rolled on me (ie. to my disadvantage).
The stative reflex of 'Shove' marks the 'self-directedness' of those 'Shove' verbs that express stative, or potentially durative activities. 'Shove\text{DtrS}' verbs express either states, as in 4-285 c), or punctual actions that (through verb root reduplication) can be made iterative, and thereby amenable to an extended-over-time interpretation, as in 4-287 c). 'Shove' is contrasted with both 'Shove\text{DtrD}' and 'Shove\text{DtrS}' in the examples below.
b) ngudeny -garri-fityi  
1sgShoveDtrD-leg -roll  
SU Perf  
I crossed my legs.

c) ngim -garri-fityi  
1sgShoveDtrS-leg -roll  
SU Pres  
I'm sitting cross-legged  
(lit: I am (in the state of) having crossed my legs.)

4-286 a) wudum - Ø -didi  
3sgShove-3sg-push  
SU Perf DO  
He gave it a push.  

b) wudeny -didi  
3sgShoveDtrD-push  
SU Perf  
He pushed himself off (from the bank).

c) win -dididi  
3sgShoveDtrS-push  
SU Pres redup  
(The bird) is flying along.  
(lit: It is (in the state of) repeatedly pushing itself.)

4-287 a) wudini -ngirr-felfil -tye -yedi  
3sgShove-1plex-bounce-Past-3sgGo  
SU Plmp DO redup SU Plmp  
(The road) was bouncing us.

b) wudeny -fel  
3sgShoveDtrD-bounce  
SU Perf  
He jumped.  
(lit: He bounced himself once.)

c) win -felfil -wirribem trampoline  
3sgShoveDtrS-bounce-3sgStand  
SU Pres redup SU Pres  
He's jumping on the trampoline.  
(lit: He's (in the state of) repeatedly bouncing himself.)

'Say/Do Dtr'

Although a full paradigm of subject-AVR sequences is recoverable for this auxiliary, I have only recorded its occurrence within a text on a single occasion (eg. 4-289 below), and stress therefore that its usage is very rare. The
simple auxiliary 'say/do' as its label suggests, covers both speech and actions, its interpretation as either being context dependent. eg.

4-288 ityi -yim meny -ngiti
what-2sgDo 3sgSay -1sg
SUPres SU Perf IO
'What are you doing?' he asked me.

The detransitivised reflex of 'say/do' refers only to speech, and specifically to the kind of 'self-directed' speech that one engages in in the absence of other people. eg.

4-289 nem wunu meyim -yenim ngan'gi
3sgM that 3sgSayDtr-3sgGo speech
PRO SU Pres SU Pres
That man always talks to himself.

Clearly the function of 'detransitive' auxiliary selection here is not to detransitivise, but to mark an intransitive activity that is typically perceived to be directed at others, as strictly self-directed.

Marked for plural subject, detransitivised 'Say' marks reciprocality, particularly in the sense of conferring out of earshot of others. eg.

4-290 ngan'gi wurumenigi-tye -widdingegu
speech 3nsSayDtr dl-Past-3nsStand dl
SU PImpSU SU PImpSU
They (dl) were conferring with each other.

'Heat Dtr' and 'Feet Dtr'

The remaining two detransitive auxiliaries are rare, non-productive and, despite the fact that they are formally reflexes of 'Heat' and 'Feet', have resultant meanings that are somewhat anomalous. 'Feet Dtr' has only been recorded once, functioning as a simple verb (though with an obligatory serialised auxiliary), meaning 'to mutter threateningly under one's breath'. eg.

4-291 dagawam -wirribem wayim -Ø-baty ki -ne
3sgFeetDtr-3sgStand 3sgHeat-3sg-hold fight-PURP
SU Pres SU Pres SU Pres DO
He's muttering under his breath, he's building up for a fight.
(lit: Its heating him up...)
'Heat Dtr' has only been recorded in combination with three CVSs. Marked for plural subject, it conveys reciprocality, as shown in contrast with 'heat' in 4-292.

4-292 a) \textit{ngimbineny-Ø-tyamu-baty}
\underline{1plincHeat -3sg-cheek -hold}
\underline{SU Perf DO}
We (plinc) slapped him on the cheek.

b) \textit{ngimbineweny-tyamu-baty}
\underline{1plincHeatDtr -cheek -hold}
\underline{SU Perf}
We (plinc) slapped each other.

However, note that in at least one verb -'heatDtr#karrbu' it appears not to be 'self-directed', but rather combines the semantic components of 'heat' and 'Go*', to mean 'to go along lighting fires'. eg.

4-293 \textit{ngimbineweny-karrbu wurr}
\underline{1plincHeatDtr-come grass}
\underline{SU Perf down}
We (plinc) came down (-hill/-stream) burning the grass.
Chapter 5

Noun Classification

Ngan'gityemerri speakers employ a system of nominal classification that divides the nominal world into fifteen categories. Section 5.1 examines the manner in which membership within these categories is signalled, and section 5.2 deals with the semantics of these categories. 5.3 looks at the types of modifying element that can be classmarked. 5.4 details the suffixation of class generics to minbe 'negative' and tyen 'what'. Finally section 5.5 examines the phonological status of the set of bound class generics, which varies between proclitics and prefixes.

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<td>wur-</td>
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<td>kuru / kuri (K)</td>
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<tr>
<td>tyin / tyun (K)</td>
<td></td>
<td>large woomeras</td>
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</tbody>
</table>

Table 5-1

5.1 Morphology of Nominal Classification

5.1.1 Descriptive Preliminaries

The classification of nouns in Ngan'gityemerri into fifteen separate categories is signalled through the use of both freeform and bound generics. While most nouns can be assigned to at least one class, there are some nouns, mostly terms for natural objects such as sun, rocks, ground, stars,
clouds etc. that belong to no overtly marked class. I have chosen to analyse these as belonging to no class rather than to a sixteenth $\emptyset$-marked class; a decision that carries no significant consequences.

On the whole, this system of noun classification is neither homogenous nor internally consistent. Of the fifteen classes, six are denoted by only freeform generics, five by only bound generics, and four employ both bound and freeform generics. Furthermore, among the class categories having bound generics, there is considerable diversity regarding the phonological status of those generics (see 5.5), and the types of modifiers to which they may be attached (see 5.3).

Another important feature of the Ngan'gityemerri noun classificatory system that will be treated here, concerns the grammatical status of the mechanisms that signal class categories. As this has implications for the terminology used in this section, I will begin with a review of Dixon's (1982) comparison of the noun classification phenomena in Yidiny and Dyirbal.

Dixon (1982: chpt 5-8) compares the different systems in Yidiny and Dyirbal that have the semantic function of classifying nouns, and contrasts the grammatical status of these two systems. He provides criteria for determining whether a language has a system of noun classes (like Dyirbal) on the one hand, or noun classifiers (like Yidiny) on the other.

"In summary, noun classes constitute a closed grammatical system, with a finite (usually fairly small) and determinable number of choices involved; each noun belongs to one class and few (or none) will correspond to more than one class. Noun class is shown by morphological processes which can apply to the noun itself and must apply to some other constituent; they sometimes combine information about noun class and number, case or definiteness. The morphological process most often involves adding an affix or clitic to constituents of a number of specified grammatical types. Classifiers comprise a largish (often semi-open) set, whose members may not be exhaustively listable; each classifier is either a free form or else a root, to which a numeral affix or clitic may be added. Not every noun may take a classifier; many nouns may occur with one of a number of different classifiers, sometimes with a difference in meaning and sometimes not. Classifiers, but not noun classes, may be used in different ways in different speech styles within a language."

(Dixon 1982:217-8)

Dixon goes on to speculate about the origins of these different mechanisms in Yidiny and Dyirbal, suggesting both may have developed from a small set of about half a dozen classifiers. The few classifiers in pre-Yidiny were augmented to yield the larger modern classifier set, and those in pre-Dyirbal developed into an obligatory morphological category of noun classes. He does give examples of a few languages (Micronesian and Athapaskan) which combine noun class and classifier features, but on the whole he finds that the vast majority of 'classifying' phenomena fit the criteria by which they can be labelled as either 'noun classes' or 'classifiers'
In view of his speculation about the development of the Yidiny and Dyirbal systems, he notes that those languages which show a combination of noun class and classifier features (e.g. Mokilese) "may be in the first stages of change into a grammatical system of noun classes" (loc. cit: 221).

In light of the noun class versus classifier debate, it must be said that the phenomena of nominal classification in Ngan'gityemerri (and probably other Daly languages) do not fit these criteria well. As we shall see in the following section, while the freeform generics have more of the features of classifiers, and the bound generics have more of the features of noun classes, none are good exemplars of either type. Despite this, to make the discussion throughout this section as clear as possible, I have divided the fifteen generics in Table 3 into three groups. Groups 1 and 2 have bound generics and by this criterion are viewed as 'noun classes'. Groups 2 and 3 have freeform generics that are viewed as 'classifiers'. Note that Group 2 has both noun class markers and classifiers. The differing usages of these are discussed in 5.1.4 below. Where there are differences in the semantics of corresponding nounclass markers and classifiers, these are examined in the appropriate sections of 5.2. Finally, I additionally use 'noun classification' as a cover term for the system as a whole (i.e. embracing both noun classes and classifiers).

Noun classes are defined as those sets of terms whose membership within a class is signalled grammatically by the attachment of bound class generics, either to the member noun itself, or to nominals that may modify it. For most of the 'noun classes' examined in section 5.1.3 and 5.1.4 there are identifiable subsets of nouns which do not bear class signalling prefixes. For instance, while the vast majority of animal terms bear the a-prefix that signals membership in the 'animal' class, e.g. a-matyi 'kangaroo', a few cannot be classmarked in this manner, e.g. (*a-)wamanggal 'wallaby'. However the class membership of nouns like wamanggal is still formally revealed through the attachment of a- to any adjective, pronoun or demonstrative modifying them, e.g. (a-)wamanggal a-wedi 'a little wallaby'. Those class member terms that do not themselves bear class marking, but which can be shown to belong to a particular class through this strategy of modifier concord, are referred to as defacto class members. Throughout this section all reference to formally defined 'noun class' should be understood to refer to the set of classmarked and defacto noun class members.

It should also be kept in mind that disparities exist between formally defined noun classes, on the one hand, and semantically defined classes on the other. We require the notion of 'semantically defined class' to account
for, for instance, those bodypart terms like *kekulkul* 'heart' that do not bear the bodypart class prefix. As the bodypart prefix is not attached to nominals modifying bodyparts, *kekulkul* cannot be shown to be a defacto 'bodypart' class member through the strategy of modifier concord. Words like *kekulkul* then, belong to the semantically defined, but not the formally defined, 'bodyparts' class.

5.1.2 Group 3 Classifiers

The six generics, *syiri* 'strikers', *kurum* 'canegrass spears', *yenggi* 'fire', *kuru* 'water', *tyin* 'woomeras' and *kini* 'digging sticks' are freeforms that optionally precede nouns in generic - specific constructions.

5-1 (syiri) magulfu dem -wurity-dim
striker cylindrical 3sgHands-make -3sgSit
fighting stick SU Pres SU Pres

He's making a cylindrical fighting stick.

5-2 (yuri) yewirr me -wa
NgK striker stick 3sgSnatch-pick
SU Pres up

He snatched up a fighting stick.

5-3 (kurum) yiliyili (kurum) ngayi kide
canegrass mangrove 1sg where
spear tipped spear PRO
Where's my mangrove-tipped kurum spear ?

5-4 (tyin) gan'guna nganam-garri-fulirr-ngirim gugarra
woomera fish spear 1sgFeet -leg -rub -1sgSit red
gen. woomera SU Pres SU Pres ochre
I'm rubbing ochre into the length of this 'fish spear-type' woomera.

5-5 (kini) manggini-ninggi wupun -kurr
digging digging -INSTR 3sgSlash-dig
stick gen. stick-type SU Pres
She's digging with a 'manggini' digging stick

5-6 (kuru) beer ngimbi -kuduk-pe
liquid IdlincSit-drink -Fut
generic SU Irr
Let's have a beer !

5-7 (yenggi) tawan wunu yinyirri
fire smoke there 2sgSee
generic SU Irr
Can you see the smoke over there ?
5-1 to 5-7 demonstrate the optional inclusion of the generic in addition to the specific noun. Note also that these generics can anaphorically represent contextually established specific nouns, as in the examples below.

5-8 syiri  ngu  -nyi-ta  -merrendi
    striker       1sgSlash-2sg-hit-LEST
    generic        SU     Irr       DO
    (Look out !) lest I hit you with a stick/boomerang etc. !

5-9 kurum-ninggi  wurrbum-Ø-da
    canegrass-INSTR       3plBash-3sg-hit
    spear                  SU Perf       DO
    They speared it with canegrass spears.

5-10 kuru  derrigidi-kerim
    liquid  want      -2sgHands
    generic           SU     Pres
    Would you like a beer ?

5-11 yenggi  yudi  -ngiti-mi  -wul
    fire      2sgShove-1sg     -Val-return
    generic        SU     Irr       IO
    Bring me back some firewood !

As is evident in 5-3 above, these classifier-like freeform generics can optionally precede modifiers of nouns. Typically though, they only do so where the specific noun is omitted. Here the freeform generic functions as the head in a head-modifier construction, as demonstrated in 5-12 and 5-13.

5-12 kuru  lirrmem  derrigidi-kerim
    liquid  cold  want      -2sgHands
    generic           SU     Pres
    Would you like a cold beer ?

5-13 yuri  wutilmi  me  -wa
    NgK       striker     heavy       3sgSnatch-pick
    generic           SU Perf  up
    He snatched up a heavy fighting stick/boomerang etc.

Various of these classifiers can be found to co-occur with the same noun. This is demonstrated in 5-14 below, where syiri, kini and yenggi all classify the function/use of yawurr 'stick'.

5-14 syiri  yawurr               stick for fighting
    kini  yawurr               stick for digging
    yenggi  yawurr             stick for burning
Returning to Dixon's 'noun class' vs 'classifier' criteria, these six generics can be seen to behave like classifiers in several ways. Firstly, they are freeforms. Secondly, their signalling of function/use categories is not significantly grammaticised. They typically do not occur with any constituent other than the noun. Their occurrence with modifiers is generally restricted to those constructions where the generic anaphorically represents the omitted specific noun (as in 5-12 and 5-13). Thirdly, several of these generics can fairly freely occur with the same noun (as in 5-14).

On the other hand these generics also exhibit a feature that is atypical of classifiers: they represent closed classes with only a few members that can be easily listed.

5.1.3 Group 1 Noun Classes

The five generics, wa- 'male', wur- 'female', dV- 'bodyparts', wu- 'canines' and awa- 'human group', are bound prefixes. They have no freeform equivalents, and there is therefore no reason to assume that they are the degenerate, contracted forms of any fuller noun (but see footnote 4, p297). All of these five generics are obligatorily attached to nouns that are members of their respective classes, and all but the bodypart prefix can be concordially attached to any modifiers of member nouns.

The maximal structure of NP's belonging to these five classes can be formulated as:

5-15 \[\text{[class prefix + Noun}_{\text{specific}}\] + \[(\text{class prefix}) + \text{modifier}]^*\]

The obligatory attachment of these noun class bound generics to class member terms, and their optional concordial attachment to modifiers, are demonstrated below.

5-16 \text{wa-tyerrmusye (wa)-m笔者ayarra perrety-men}\[
\begin{array}{ll}
\text{M-old man} & \text{M-blind} \\
\text{cl} & \text{die -3sgDo} \\
\text{cl} & \text{SU Perf}
\end{array}
\]
The old blind man has died.

5-17 \text{wur-wedimuy (wur)-ngayi tyusyu-mem}\[
\begin{array}{ll}
\text{F -child} & \text{F -1sg sick -3sg Do} \\
\text{cl} & \text{cl PRO SU Pres}
\end{array}
\]
My little girl is sick.

5-18 \text{awa-purrpurrk (awa)-nyinity ngunu...}\[
\begin{array}{ll}
\text{Hg -little'uns} & \text{Hg -2sg HOW} \\
\text{cl} & \text{cl PRO ABOUT}
\end{array}
\]
How about your mob of kids.....?
5-19 **wu-pidirri (wu)-wagarri nginyirri**

- **C -dingo**
- **C -two**
- **1sg See**
- **cl cl SU Perf**

I saw a couple of dingos.

5-20 **da-muy (*de-*)kenggefi yenim**

- **Bp-eye side on 3sg Go**
- **cl SU Pres**

He’s cross-eyed.

So how well do these five generics fulfil the criteria discussed above for noun classes rather than classifiers? Firstly, as bound prefixes they violate the requirement of classifiers that they do not form a morphological unit with the noun. Rather they accord with the observation that noun class membership is typically signalled by affixes/clitics (Dixon 1982:216). Secondly they designate closed classes, with most nouns belonging to only a single class (the few exceptions are mostly human age/stage terms that can be assigned to either the ‘male’ or ‘female’ classes).

However these five generics violate Dixon's criteria for noun class markers in one important way. He states that "noun class is shown by morphological processes which can apply to the noun itself and must apply to some other constituent" (loc. cit.). As the NP structural formula in 5-15 shows, of these five Ngan'gityemerri 'noun class' generics it would be more appropriate to state that the prefix *must* apply to the noun itself and *can* apply to some other constituent.

5.1.4 Group 2 Noun Classes and Classifiers

The two categories of noun classification examined in 5.1.2 and 5.1.3 differ in the major sense that the former are signalled only by freeform generics, and the latter only by bound generics. There remain four 'classes' which are signalled by both freeform and bound generics. As can be seen in 5-21, the bound generics are the degenerate, contracted forms of the freeform generics.

<table>
<thead>
<tr>
<th>5-21 Freeform</th>
<th>Bound Form</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>gagu</td>
<td>a-</td>
<td>animal</td>
</tr>
<tr>
<td>miyi</td>
<td>mi-</td>
<td>plant food</td>
</tr>
<tr>
<td>yawurr/yewirr(K)</td>
<td>yerr-</td>
<td>tree/thing</td>
</tr>
<tr>
<td>yawul</td>
<td>yeli-/yali-(K)</td>
<td>bamboo spears</td>
</tr>
</tbody>
</table>

These freeform generics optionally precede nouns forming NP's of the generic - specific type. This construction is demonstrated in 5-22 to 5-25.
5-22 (gagu) a-matyi bengin -da
animal A-kangaroo 3sgBash-hit
generic cl SU Perf
He shot a kangaroo.

5-23 (miyi) mi-meli wurrbun-ba -ket
plant Pf -purple 3plSlash-arm-cut
food cl plum SU Pres
They're picking purple plums.

5-24 (yawurr) yerr-syinge yubu -ket- Ø
tree/thing Tr -Pandanus 2sgBash-cut-IMP
generic cl aquaticus SU Irr
Chop down (these) creek pandanus!

5-25 (yawul) tyulut warrim-pawal-wannim
bamboo hook 3plPoke-spear -3pl Go
spears spear SU Pres SU Pres
They're throwing hook spears.

Additionally they can anaphorically represent a contextually understood (or intentionally unspecified) specific noun. Compare 5-22 to 5-25 with 5-26 to 5-29 below.

5-26 gagu bengin -da
animal 3sgBash-hit
generic SU Perf
He shot an animal.

5-27 yawurr yubu -ket- Ø
tree/thing 2sgBash-cut-IMP
generic SU Irr
Chop down (these) trees!

5-28 miyi wurrbun-ba -ket
plant 3plSlash-arm-cut
food SU Pres
They're picking fruit.

5-29 yawul warrim-pawal-wannim
bamboo 3plPoke-spear -3pl Go
spears spear SU Pres SU Pres
They're throwing bamboo spears.

The degenerate bound generics listed in 5-21 are obligatorily attached to nouns, and concordially to any adjectives, pronouns, demonstratives etc. that modify them. The 'bamboo spear' bound generic yali- is exceptional, attaching only to modifiers and never appearing on class member nouns (see 5-33).

5-30 a-matyi a-kerre
A-kangaroo A-big
cl cl
A big kangaroo...

5-31 yerr-syinge yerr-wagarri
Tr -Pandanus Tr - two
cl aquaticus cl
Two creek pandanus...

5-32 mi-meli mi-kinyi
Pf- purple Pf -this
cl plum cl
These purple plums...

5-33 (*yali-) tyulut yali-ngayi
hook Bs -1sg
spears cl PRO
My hookspear....
The maximal structure of NP's belonging to these four classes can be formulated as:

5-34  \[(\text{Noun}_{\text{generic}}) + [\text{class prefix} + \text{Noun}_{\text{specific}}] + [(\text{class prefix}) + \text{modifier}]^*\]

Looking at the generics of the classes 'animal', 'plant food', 'tree/thing' and 'bamboo spears', the freeform generics *gagu*, *miyi*, *yawurr* and *yawul* can be seen to share the classifier-like characteristics attributed to the generics treated in 5.1.2. On the other hand the bound generics *a-, mi-, yerr-*, and *yali-*, in their morphological status and concordial role in attaching to NP constituents other than the noun, share with the bound prefixes examined in 5.1.3 the features characteristic of 'noun classes'. Not only is the system of 16 categories of noun classification split between those classes having freeform classifier-like generics and those classes having bound noun class-like generics, but those four classes signalled by both freeform generics and their degenerate bound equivalents show the same split, i.e. their freeform generics are classifier-like, and their bound generics are noun class-like. In having both nounclass-like generics and classifier-like generics, these four classes do not accord with the observation that 'The Australian languages with noun class systems do not employ classifiers' (Dixon 1982:173).

5.2 Noun Class Semantics
5.2.1 'Male' and 'Female'

These classes are morphologically signalled by the bound proclitics *wa-* 'male' and *wur-* 'female'. Neither of these classes are denoted by freeform generics. Note that I do not consider the nouns *mipurr/yedi*(K) 'man' and *falmi* 'woman' to be generic terms. These nouns pattern with other gender-specific member nouns of their respective classes in optionally bearing bound class generics, e.g. *(wa-)*yedi(K) 'man' and *(wur-)*falmi 'woman' (see 5-35 to 5-37 below). In comparison the freeform generics discussed in 5.1.4, such as *gagu* 'animal', *miyi* 'plant food', *yawurr* 'tree/thing' etc, can never be prefixed by their corresponding bound generics, e.g. *(a-)*gagu, *(mi-)*miyi, *(yerr-)*yawurr.

The classes 'male' and 'female' are concerned purely and simply with categories of human gender. Nouns in these classes designate categories of age, status, condition etc. Personal names and kinterms are not members of these classes. The attachment of the bound class markers to class members is

---

1One minor generic-like characteristic of *mipurr/yedi*(K) and *falmi* is noted in 5.4.
normally obligatory, as in 5-35, but can be omitted from those nouns that are inherently gender-specific, as in 5-36 and 5-37.

5-35  

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>wur-mulurru</td>
<td>wa -mulurru</td>
</tr>
<tr>
<td>wur-nugumang</td>
<td>wa -nugumang</td>
</tr>
<tr>
<td>wur-filfilingini</td>
<td>wa- filfilingini</td>
</tr>
</tbody>
</table>

5-36  

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>(wur-)guniguni</td>
<td>(wur-)delyek</td>
</tr>
</tbody>
</table>

5-37  

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>(wa-)tyerrmusye</td>
<td>(wa-)dakarrany</td>
</tr>
</tbody>
</table>

The existence of the 'human group' class (see 5.2.2 below) should not be understood to imply that nouns of the classes 'male' and 'female' are, in contrast, singular in number. All the examples given in 5-35 to 5-37 are numerically unspecified, and equally amenable of plural interpretation.

The bound generics wa- and wur- cannot be attached to nouns designating non-humans in order to attribute gender characteristics to them. The gender of non-humans can only be specified using the nouns mipurr 'man' and falmi 'woman', as demonstrated in 5-38.

5-38  

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-menggin mipurr da -nguru wagari dem -baty</td>
<td>A-goanna man Bp-penis two 3sgHands-hold cl cl SU Pres</td>
</tr>
</tbody>
</table>

A goanna, a man one, has two penises.

5.2.2 Awa- Human Group

The bound generic awa- denotes a collection of humans that can be considered to constitute a 'group' or 'collective' for any practical purpose.

---

2Note that certain animal names are inherently gender specific, e.g. tyirrety 'male Agile wallaby' and wamanggal 'female Agile wallaby'.

3 The prefix rak- also denotes a group of people, but one with far more specific reference. It refers to a patri-clan, a local land owning estate group determined by patrilineal affiliation, and attaches only to the names of such groups. Cognates of rak- (dak-, lak-, etc.) having the same meaning can be found in most if not all the Daly region languages (Green, Harvey pers. comm.).
Typically glossed as 'mob' in the Aboriginal English of Ngan'gityemerri speakers, **awa-** is attached to placenames to denote their denizens; personal names to mark the group of people associated with, and including, the named individual; demonstratives - indeed any sort of descriptive nominal that can feasibly identify a group of people. **Awa-** cannot be attached to numerals, e.g. *awa-warrakma. Although a designated 'group' must consist minimally of, say, three or four people, **awa-** otherwise conveys no information about the size of a group.

5-39  
**awa-purrpurk**  
Hg -little 'uns  
cl  
**awa-yeyi**  
Hg -other  
cl  
**awa-kinyi**  
Hg -this  
cl  
**awa-fepi minati (K)**  
**awa-Tyemeny**  

5.2.3 **Wu-** Canines

This minor class consists of only two members **wu-wu** 'dog' and **wu-nganiwurrnimbi/wu-pidirri(K)** 'dingo'. Membership in this class is denoted only by the bound generic **wu-**, there being no corresponding freeform generic. 5-40 below shows the concordance of the **wu-** prefix on modifiers of 'canine' class members.

5-40  
**wu-wu**  
**wu-mibe**  
**wannam-fili** -**wannim**  
C -dog  
cl  
C -young 'un  
cl  
3plFeet -roll-3plGo  
SU Pres  
SU Pres  

The pups are moving about now.

---

**rak-fepi minati (K)**  
The group of patrilineal descendents of Fepi minati estate  
**rak-nerintyi (K)**  
The group of patrilineal descendents of Nerintyi estate  
**rak-malfiyin**  
The group of patrilineal descendents of Malfiyin estate  
**rak-nganambala**  
The group of patrilineal descendents of Nganambala estate  

Note that, **awa-** and **rak-** can both attach to estate names. While **rak-fepi minati (K)** describes only the descendants of that estate group, **awa-fepi minati (K)** includes those who have married estate members and anyone else considered to live in, or in some other way be associated with, the estate.

---

4Presumably the nominal root -wu in **wu-wu** 'dog' is the source for the canine class prefix. This root however refers only to domesticated dogs and cannot be used generically in reference to both dogs and dingos.
5.2.4 'Bodyparts'

The 'bodypart' class also has no freeform generic (although see the discussion overpage), being denoted only by the bound generic dV-. (The rule by which the vowel quality is determined is given in 2.4.4.1). Prototypical 'bodypart' class members are those parts of the body that are external, inalienable and clearly defined5.

<table>
<thead>
<tr>
<th>5-41</th>
<th>de-pi</th>
<th>-</th>
<th>head</th>
<th>da-purr</th>
<th>-</th>
<th>bum</th>
</tr>
</thead>
<tbody>
<tr>
<td>de-syi</td>
<td>-</td>
<td>nose</td>
<td>de-firr</td>
<td>-</td>
<td>foot</td>
<td></td>
</tr>
<tr>
<td>da-muy</td>
<td>-</td>
<td>eye</td>
<td>da-garri</td>
<td>-</td>
<td>lower leg</td>
<td></td>
</tr>
<tr>
<td>da-ba</td>
<td>-</td>
<td>arm</td>
<td>de-tyeri</td>
<td>-</td>
<td>ear</td>
<td></td>
</tr>
<tr>
<td>da-madi</td>
<td>-</td>
<td>chest</td>
<td>de-nintyi</td>
<td>-</td>
<td>knee</td>
<td></td>
</tr>
<tr>
<td>de-me</td>
<td>-</td>
<td>hand</td>
<td>de-derri</td>
<td>-</td>
<td>back</td>
<td></td>
</tr>
</tbody>
</table>

Of the 90 odd terms for parts of the body that constitute the semantically defined class of 'bodypart' terms, only 33 bear the generic prefix and are therefore members of the formally defined class. Those bodypart terms that are not included in the class are either; alienable bodyparts, e.g. wusye 'hair', fetyen 'blood', tyi 'breastmilk', finy 'sweat'; internal bodyparts, e.g. kekulkul 'heart', yirringgu 'kidneys', pakalang 'tibia + fibia'; vaguely defined areas of skin, e.g. milwadi 'waist', ngapa 'area between shoulder blades'6; or are assigned to the animal class (see 5-51 in 5.2.5). Bodypart terms that are the compounds of two or more 'bodypart' noun roots cannot host the class prefix, and are therefore also excluded from the formally defined class, e.g. pi-piri (head-pus) 'brain', muy-wasyan (eye-hair) 'eyebrow/lash', mity-kuru (eye-water) 'tears'. Note that these semantically-defined bodypart terms that do not bear the bodypart class prefix cannot be assigned to the bodypart class by the defacto membership clause noted in 5.1.1, because the bodypart prefix is not concordially attached to modifiers of bodypart nouns.

Before moving on from the 'bodyparts' class, it is worth noting a bound form dV-, meaning 'country', that functions as a prefix on the directional modifiers;

---

5This excludes those terms for expanses of skin surface, like milwadi 'waist' etc, the boundaries of which are not so readily apparent.

6This area is defined with particular reference to it being the 'seat' on which children sit when being carried on the shoulders. ngapa also means 'a shoulder-ride' as in;

```plaintext
ngapa derrigidi-yerim
shoulder want -2sgHands
ride SU Pres
Do you want a shoulder-ride ?
```
and further patterns with the bound class markers in suffixing the interrogative tyen- 'what kind of?' (see 5.4). e.g.

5-44 tyen-mi - what kind of plant food?
tyen-ga - what kind of animal?
tyen-nawurr - what kind of tree/thing?
tyen-de - which country?

This dV- form would appear to be related to the freeform de de 'country/camp/estate', though it does not prefix place names (as a cognate prefix in Murrinh-patha does (Walsh 1976:142)). Now this 'country' bound prefix may simply be homophonous with the 'bodypart' bound generic. However looking at the distribution of dV- across the range of structural positions in which freeform and bound noun class generics occur, as set out in 5-45, we find that they are in complementary distribution.

5-45

<table>
<thead>
<tr>
<th></th>
<th>Bodypart</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeform Generic</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>Bound Generic on member</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Bound Generic on modifier</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>Suffix on tyen-</td>
<td>×</td>
<td>✓</td>
</tr>
</tbody>
</table>

Given this complementary distribution, and taking into consideration the widespread use of bodypart terms in describing features of the landscape (cf. 3.5.3), the 'country' and 'bodypart' reference of dV- could be viewed as a case of polysemy rather than homophony. It is possible that 'bodyparts' and 'country/place' are (or, more likely, once were) based on an underlying whole-part category, of which 'parts of the body' and 'parts of the landscape' are/were the prime prototypes (and only members).

5.2.5 'Animal'

The formally defined 'animal' class consists of non-human animates other than canines (see 5.2.3). Member nouns obligatorily take the bound generic prefix a-, which is also obligatorily concordially attached to any modifiers.

5-46 a-matyi a-minbadi
A-Antilopine  A-big
cl wallaroo  cl
A big 'roo...
Not all animal names obligatorily take the bound generic. Exceptions include: loanwords for introduced species, - *walfaga* -'buffalo', *nendu* -'horse', *pigipigi -'pig' and buliki -'cattle' etc; reduplicated onomatopoeic names, mostly denoting birds, -*wirritywirrity* -'rainbow lorikeet', *makmak* -'white sea eagle', *tyunguttyungut* -'frogmouth owl' etc; some gender specified names, - *wamanggal* -'female agile wallaby', *tyirrety* -'male agile wallaby' etc; and a few residual terms for which the motivation for lack of bound generic prefixation is not readily apparent, - *burra* -'pelican', *ngurrp* -'emu', *dayi* -'catfish sp.', *walpangarri* -'hornet sp.' *budenggu* -'pied cormorant' etc. Although these terms do not fit the defining criteria of the formal 'animal' class (i.e. they fail to bear the bound generic prefix), they can be assigned defacto membership on the grounds that any modifiers of these nouns will concordially select the 'animal' class bound generic, as demonstrated in 5-49 and 5-50.

Less central members of the 'animal' class include certain bodyparts, corpses, money, playing cards, spirits and ancestral beings. Those bodyparts that belong to this class rather than the bodypart class (see 5.2.4) are listed below.

---

7The membership of *a-murru 'egg' and terms for egg parts, e.g. *a-syapul 'egg white', within this class, is decidedly odd, given their alienable status.
Within a culture where the butchering of animals is a regular practice and the anatomy of most animals is common knowledge, the allocation of most of these bodyparts to the 'animal' rather than 'bodypart' class, may stem from their high salience as parts-of-animals as opposed to parts-of-people.

The terms for female genitalia are also formal members of the 'animal' class. As can be seen in 5-52, these terms are built on facial feature metaphor, a form of semantic extension that is widely attested (Wilkins 1981:108).

5-52

a -syi
Acl-nose

a -de -syi
Acl-Bpcl-nose

a -da -muy
Acl-Bpcl-eye

The anomalous treatment of female genitals within noun classificatory systems is fairly common among Australian languages (Evans 1988). Dixon (1982:179) also notes that highly important or salient subsets of noun classes can be 'marked' by allocation to a different noun class.

5-53

peke yerr-weti ngudupum-panmi-wirr ngan-gagu a -syi,
NgK tobacco Tr -small 1sgShove -crotch -insert LOC -animal A-nose
cl SU Perf gen. cl =vagina

I slipped a small pellet of tobacco up into her vagina, and when
wudem -fel, muk-werri dem -baty -yenim, ngim,
3sgShoveDtr-bounce sore -ASSOC 3sgHands-hold-3sgGo 1sgThink
SU Perf =jump SU Pres SU Perf SU Perf
she jumped (at the irritation) I knew then that she had an infection.

The allocation to this class of corpses, ghosts and ancestral beings suggests that there is an association between this class category and features of the spirit world. This may be explicable in cosmological terms; presentday humans and animals are the common descendents of ancestral beings whose outward physical shape could vary between animal and human. Viewing people, animals, spirits and ancestral beings as members of a single macro-class, those that are alive and human are distinguished as male or female, and everything else is 'gagu'.

5-54

yawam -burcki-nuwurr-pe atyat
2sgTake-3dl -a little -Fut outside
SU Irr IO while loanword
Take these two (men) outside (because),
gagu a -fIRR -werre video cassette kinyi ngerim-baty

animal A-foot-ASSOC here 1sgHands-hold

cl =corpse SU Pres

This video cassette I have here has (images of) a deceased person on it.

5-55 gagu a-nguty dinyirri

animal A-ghost 3sgSee

cl SU Perf

She saw a ghost!

5-56 kine ngiminy-ne gagu burra girim

this 1sgSay -3sg ancestral pelican 3sgSit

place SU Perf IO being SU Pres

'This place' I told him 'is where Ancestral Pelican lives.'

The terms fepi -'rock' (belonging to no class) and wa -'paperbark' (belonging to the 'tree' class) are used as terms for coins and banknotes, respectively. Used in this sense these terms (and additionally the loanwords 'money' and 'silver') are members of the 'animal' class, and occur in combination with the freeform generic gagu, as in 5-57 below. The assignment of money to the 'animal' class may be based on the physical and functional resemblance (of coins at least) to a-pelpel, the pearl shells once brought as trade goods from the west. The gagu classification of 'playing cards' is shown in 5-58.

5-57 gagu money yinnyinggin'gu, gerrim-buy -girrim,

animal 2plSee dl 3pl ? -light -3plSit

gen. SU Pres SU SU Pres SU Pres

You (dl) see that money shining brightly? That's silver coins that gagu silver-nyine wuddumbun-fi-madi-wurity-wannim kuru -nide,

animal -FOC 3plShove -Mp-chest-make-3plGo water-LOC

gen. SU Pres = throw in SU Pres

they (whitefellas) always throw into the water (fountain).

a-kinyi-mirri mabuk

A-here-EMPH lots

cl

There's a lot of money here.

5-58 ma gagu yeyi pagu

HORT animal other HITH

generic

Give me another card!

(request to dealer in game of kunkad - like gin rummy)

The 'animal' class is one of the four noun classes for which, in 5.1.4, we noted that there are both bound and freeform generics. The freeform
'animal' generic *gagu* occurs with 'animal' class member terms in generic-specific constructions (see 5-46 to 5-48). In classifying those less central class members (like bodyparts and money and playing cards) the freeform generic *gagu* plays a similar semantic role to the bound generic, classifying them as types of *gagu*. However in its occurrence with terms that designate species of animal, the generic *gagu* brings particular focus onto those animals as either sources of meat, as in 5-61, or as ancestral beings, as in 5-60.

The focus on 'edibility' is peculiar to the freeform generic classifier *gagu*, and is never a component of the bound class generic. In fact *gagu* is used, in the absence of a specific noun, to simply mean 'meat' in the same way that *miyi* is used to mean 'vegetables' and *kuru* 'drinks', as in 5-59.

5-59  *gagu*  *miyi*  *kuru*  ngumbusyiny-waty
animal  plant  liquid  1plincSuck  -consume
gen.  food  gen.  SU  Perf
We ate meat and vegies and had drinks.

These two quite separate senses of *gagu* are rarely if ever confused. A *gagu* classified inedible animal will always be understood to be an ancestral being, as in 5-60.

5-60  *gagu*  a-nyen  kine  demem  -dundum-yenim
ancestral  A-sand  this  3sgHandsDtr-bury  -3sgGo
being  cl  frog  place  SU  Pres  redup  SU  Pres
This is the place where Ancestral Sandfrog buries himself.

Whether a *gagu* classified edible animal is being referred to as a source of meat, on the one hand, or an ancestral being, on the other, will generally be evident from the human-like actor roles accorded the latter. Compare 5-61 and 5-62.

5-61  *gagu*  nendu  dam  -ngirr-me  -ket
animal  horse  3sgPoke-1plex-hand-cut
SU Perf  IO
He divided the horse flesh among us.

5-62  *gagu*  burra  fepi  nyin-nimbi
animal  pelican  hill  ANA-SOURCE
gen.
Ancestral Pelican (came) down from that hill,
darani  -titidi-pagu  -tye  -yedi  darrwa-werre
3sgPokeDtr-push-HITH-Past  -3sgGo  raft  -ASSOC
SU Plmp  redup  SU Plmp
poling herself along on a raft.
5.2.6 'Plant Food'

This class consists only of vegetable food, as opposed to flesh food. Over 80 member terms of this class have been recorded, of which 20 or so remain unidentified. These are all fruits, seeds, fleshy seedpods, nuts, corms, rhizomes, edible stalks and flowers etc. Unlike the 'animal' class bound classmarker and freeform classifier, the 'plantfood' freeform and bound generics, miyi and mi-, share the same semantics and have an even stronger focus than gagu on the notion of 'edibility'; with a single exception (5-68) all members of this class are plant parts that are eaten.

For those trees that have significant parts other than their edible miyi, for instance if their timber is used in the manufacture of some artefact, the term for that plant will belong to both the 'tree' and 'plant food' classes. This is shown in 5-63 where the same roots take both the mi- and yerr-bound generics.

5-63  yerr-sya - Cycas armstrongii
       mi -sya - seed nuts of Cycas armstrongii

       yerr-ngugurr - Tamarindus indica
         mi -ngugurr - edible seed pods of Tamarindus indica

       yerr-furra - Ficus scobina
         mi -furra - edible fruit of Ficus scobina

However those plants that have no significant parts other than their edible ones typically belong to the 'plant food' class only, although their mi-marked form can be used in reference to the whole tree, as in 5-64. Note though that when it is the whole tree rather than just the edible parts that are being referred to, any adjective modifying the mi- marked plant term will take the bound 'tree' class generic, as in 5-66. Compare 5-66 with 5-65 where mi-menem refers to the fruit, rather than the whole tree, and its modifier takes the class prefix mi-. In 5-66 the bound generic on the modifier is not a copy of the overt 'plant food' class bound generic that is attached to the head. Rather it concords with the 'tree/thing' class to which the head has been referentially assigned. This is not a common phenomenon, but it is for this reason that the attachment of bound class generics to modifiers is not viewed as a 'copying' process, but rather as a strategy for showing concord between head and modifier. As 5-66 demonstrates, it is not impossible for modifiers to show concord with a noun class other than that overtly marked on the NP head.
The formally defined 'plantfood' class corresponds very closely with the semantically defined class. The following three terms are the only examples in my data that do not take the bound class generic. However any modifiers of these terms will show 'plantfood' class concord, so they are de-facto class members.

5-67 mundupan - bush cucumber
taktakma - bush passionfruit
kagulkagul - fruit of unidentified vine

The single inedible (de-facto) member of the 'plant food' class is ngikin/ngekein (K) -'shit', which does not take the bound class generic, but can be classified by the freeform generic miyi. Any modifiers of this 'plant food' class member will copy the bound generic mi-.

5-68 miyi ngikin mi-wetimbi ngunni -fifili -tye
plant shit Pf -old IplexSlash-search-Past
food cl SU Pimp redup

We were searching about for old (cattle) shit (for lighting a fire).

Additionally, tobacco, which is normally a 'tree' class member (see 2.1.1.5), can be assigned 'plant food' class membership, not because of its 'edibility', but for the reason that it can be colloquially referred to as 'shit'. e.g.

5-69 ngatya ngikin fi -ngumu-pe ya mi-dityunggurr-wurru
father shit puff-1sgDo -Fut hey Pf -short -UNSATIS
SU Irr cl

Hey daddy, let me have a puff of that shit....oh it's too short now.

8In addition to the three terms listed here, a fruit with the common name 'wild gooseberry' is known as mi-mirrityin in NgW, but mirrityin in NgK. The NgK name may be a further example of an unprefixed member term, or may simply be the result of ad hoc haplological reduction.
Finally, note that a number of terms are common to both the 'plant food' and 'animal' classes, distinguished only by their respective bound generics.

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>a -werrmisya</td>
<td>freshwater crocodile</td>
</tr>
<tr>
<td>mi-werrmisya</td>
<td>red plum</td>
</tr>
<tr>
<td>a -furra</td>
<td>freshwater mussel</td>
</tr>
<tr>
<td>mi-furra</td>
<td>Ficus scobina</td>
</tr>
<tr>
<td>a -mukun</td>
<td>white rock wallaby</td>
</tr>
<tr>
<td>mi-mukun</td>
<td>bush tomato</td>
</tr>
<tr>
<td>a -diny</td>
<td>leech</td>
</tr>
<tr>
<td>mi-diny</td>
<td>bush potato sp.</td>
</tr>
<tr>
<td>a -wisamuy</td>
<td>white crane (Ardea alba)</td>
</tr>
<tr>
<td>mi-wisamuy</td>
<td>white berry of Flueggea virosa</td>
</tr>
</tbody>
</table>

In some cases these pairings seem to be constructed on the basis of physical resemblances. For instance the bark of the red plum tree looks very much like the skin of the freshwater crocodile, and the vivid white colour of the berries of Flueggea virosa makes them stand out as plainly as the white crane. If there is in fact any perceived commonality between these 'animal' and 'plant food' class members, then further work may reveal that quite different features, other than physical resemblances, underlie their similarities in name. It has for instance been shown in other parts of Australia that totemic affiliations, or the relative timing of the developmental or behavioural cycle of plants and animals, form principles of systems of taxonomy and nomenclature (see for instance Chaloupka 1985).

5.2.7 Yawurr/Yewirr (K)  Trees and Things

The 'tree/thing' class consists of all trees specifically, tree products and wooden things generally, and is further extended to cover manufactured objects made of any substance. Of the 57 recorded tree species names, only 31 are members of the formally defined class, obligatorily bearing the corresponding bound generic yerr-.

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>yerr-girrin</td>
<td>Acacia difficilis</td>
</tr>
<tr>
<td>yerr-manggi</td>
<td>Barringtonia acutangula</td>
</tr>
<tr>
<td>yerr-mirrsyi</td>
<td>Callytris intratropica</td>
</tr>
<tr>
<td>yerr-fini</td>
<td>Eucalyptus polycarpa + bleeseri</td>
</tr>
<tr>
<td>yerr-syinge</td>
<td>Pandanus aquaticus</td>
</tr>
</tbody>
</table>
In comparison to the near uniformity of class marking among members of the 'plant food' class, nearly half of all recorded tree species names do not bear the bound generic. Some examples are listed below.

5-72

<table>
<thead>
<tr>
<th>Term</th>
<th>Species Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>kanawarra</td>
<td>Acacia holosericea</td>
</tr>
<tr>
<td>kunintyin</td>
<td>Adansonia gregorii</td>
</tr>
<tr>
<td>tyemerrmerr</td>
<td>Carpentaria acuminata</td>
</tr>
<tr>
<td>dirrinbuk</td>
<td>Eucalyptus alba + apodophylla</td>
</tr>
<tr>
<td>wendili</td>
<td>Grevillea pteridifolia</td>
</tr>
<tr>
<td>wilit</td>
<td>Grewia breviflora</td>
</tr>
</tbody>
</table>

However these unprefixed terms are accorded 'tree/thing' class membership on a de-facto basis, because modifiers of them do show class concord, as in 5-73,

5-73

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>mawuny</td>
<td>yerr-kerre wuddum-bat ironwood Tr -big 3pl Shove-knock cl SU Perf prone</td>
</tr>
<tr>
<td></td>
<td>They've knocked down the big ironwood tree.</td>
</tr>
</tbody>
</table>

The 'tree/thing' class also consists of the most obvious of tree products, namely any branches, sticks, twigs etc, that trees shed, whether they are in their found state or fashioned into particular artefacts.

5-74

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>yerr-wunu</td>
<td>yumu -ngiti-wa Tr- that 2sg Snatch-1sg -pick</td>
</tr>
<tr>
<td></td>
<td>SU Irr IO up</td>
</tr>
<tr>
<td></td>
<td>Pick up that stick for me!</td>
</tr>
</tbody>
</table>

5-75

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>kanbi</td>
<td>yerr-buy -mem-garri kide didjeridu Tr -light-3sg Do-leg where cl SU Pres</td>
</tr>
<tr>
<td></td>
<td>Where's that white didjeridu?</td>
</tr>
</tbody>
</table>

Terms for tree parts, such as leaves, that are features of trees only, can optionally omit the bound generic;

5-76

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>(yerr)miringgi</td>
<td>leaf</td>
</tr>
</tbody>
</table>

but those terms for tree parts that are also members of other classes, do obligatorily require it.

5-77

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>yerr-finy</td>
<td>sap ('tree sweat' cf. finy -'sweat')</td>
</tr>
<tr>
<td>yerr-panmi</td>
<td>fork ('tree crotch' cf. da-panmi'crotch')</td>
</tr>
<tr>
<td>yerr-garrfuru</td>
<td>bark ('tree skin' cf. a-garrfuru -'skin')</td>
</tr>
</tbody>
</table>


This class includes two inedible tree products, tobacco and tea leaves; and also honey, which is edible and a tree product at least in the sense that the tree must be cut open in order to get at it. The 'tree/thing' class membership of these three items is shown in 5-78 to 5-80.

5-78 funggulu yerr-kinyi ye -du -gumu
honey Tr -this 2sgMouth-touch-TRY
cl SU Irr
Try having a taste of this honey (sugarbag).

5-79 yerr-lengirr yaga tyagani-ngini fi -yimi -ngini
Tr -bad DEM what -PURP puff-2sgDo-Fut
cl SU Irr
What do you want to smoke that rubbish for?

5-80 tea yerr-biny-nyine
Tr -ripe -FOC
cl
The tea's brewed now.

In addition to tree species, and the tree parts and products mentioned above, this class contains all man-made products such as clothing, swags, cars and planes, videos and trams etc, as shown in 5-81 to 5-84.

5-81 etye-pe yerr-nugumang wuddi -pup -pe
when-Fut Tr - deceased's 3plShove-burn-Fut
cl possessions SU Irr
When are they going to 'burn the rags' (i.e. burn the swag and clothing of the deceased person)

5-82 kanbi yerr-kinyi minbe-merrendi ngembimi -baty
didjeridu Tr -this Neg -PROHIB 1dlincHands-hold
cl SU Irr
We're not allowed to take this didjeridu airplane-nide yerr-minbadi
-LOC Tr -big
cl
onto these big (interstate) planes.

5-83 yerr-yeyi-nyine yerr-minbadi nga -wurr-fufu -pe
Tr -other-FOC Tr -big 1sgPoke-3pl -shine-Fut
cl cl SU Irr IO redup
I'm going to project this other thing (video) on to the big thing (screen) for them (audience).

5-84 nganniny-mentyi-tyerr yerr-steel one deyedirr dem -baty
1plexGo -neck -stop Tr -hip 3sgHands-hold
SU Perf =wait cl =wheel SU Pres
We waited for that thing having steel wheels(Melbourne tram).
The allocation of modern manufactured products, such as those listed in the examples above, to the 'tree/thing' class, can be viewed as a natural extension of the allocation to this class of such traditional artefacts as woomeras, spears, shields, coolamons etc, which are all made from the timber of trees. The classification of these traditional artefacts with trees accords with the crosslinguistic generalisation of Allan (1977:300) who observes that 'perhaps the commonest inanimate classifier is one for trees and wooden objects'. Similar classifications have been reported for several Australian languages (see for instance Green (1989:391) and Goddard (1983:95)).

A minor and less central member of the 'tree' class, is yerr-mentyi - 'song', formed by prefixing the bodypart root mentyi -'throat/neck' with the 'tree' class bound generic. As 5-86 shows, songstyle names are also assigned to this class.

5-85 mam, meny -ngirrki, yerr-mentyi yerr-yeyi -nyine ngumu -wa, more 3sgSay-1dlex Tr -neck Tr -other-FOC 1sgSnatch-pick SU Perf IO cl =song cl SU Perf up 'Keep going' he told us, so I launched into another song.

5-86 ngimbi -ne -werr -tyeri-nime -pe, Alan wemi-yen'gi-pe-wirrim 1dlnicSit-3sgM-ASSOC-ear -1plnc-Fut 3sgHands-tell-Fut-3sgStand SU Irr IO =listen SU SU Irr story SU Irr We'll sit (up here) listening to Alan giving his speech
ngan'gi yawurr wangga -ne story tree songstyle-PURP gen. name about the Wangga songstyle.

5.2.8 Syiri / Yuri (K) - Strikers

Syiri is the generic term for the class of weapon-like things that have in common a striking type of contact. Syiri classifies boomerangs, syiri-garryinmuy and kunyungun (which are not thrown in this part of the country), and fighting sticks - both those fashioned for this purpose, e.g. misyamba 'flat-faced fighting stick' and magulfu/magulf(K) 'cylindrical fighting stick', or any stick snatched up as a weapon in the heat of a fight. Syiri also classifies wanarr -'lightning' and the term for 'dry season wind' marrawuk/fuke(K), syiri-marrawuk meaning 'cyclone'. The freeform occurrence, and classificatory use of the generic is shown in 5-87.

5-87 syiri kunyungun ngu -nyi-ta -merrendi striker boomerang 1sgSlash-2sg-hit-WARN ype SU Irr DO (Look out !) or I'll hit you with a stick/boomerang etc !
Spears fall into two categories that can be distinguished by their size, shaft, and the type of woomera that they are used in conjunction with. Larger spears have bamboo shafts to which are affixed a variety of heads. The generic for these spears is yawul, and all yawul are used with a short woomera called yagama. The size and weight of these spears, combined with the smaller woomera, gives them greater accuracy. They are used for such large game as wallabies, kangaroos and cattle. Spears classifiable as yawul, include tyulut -'hookspear' and man'guna -'flint/glass spear'.

The generic classifier yawul optionally precedes specific spear-type terms in a generic - specific construction, and modifiers of these terms take the corresponding bound generic yeli/yali (K).

The second class of spears are small light spears with a canegrass shaft affixed with mangrove or ironwood tips. Generically known as kurum, these are used with a large woomera, called tyin/tyun (K), which is only slightly shorter than the spear itself. The lightness of kurum, coupled with the size of the woomera, makes them extremely fast, although they skip about and their projection is less accurate than yawul. They are thrown into flocks of geese etc., rather than at a single specific target. They were also used until fairly recently for the ritual punishment of men.

Additionally, the throwing of spears from these two classes is described by different verbs. The verb for throwing a yawul spear is ngarim-pawal or ngarim-dap, whereas the verb for throwing a kurum spear is ngubum-da, the same verb as 'to shoot a gun'. In Ngan'gikurunggurr I have frequently heard the initial semi-vowel elided and the proclitic given as ali-.

An offender was placed in a clear area of ground between two lines of men about 40 metres distant from him and required to dodge volleys of kurum spears from either side until he was either struck, or deemed to have held out for a sufficiently long period of time to have paid his due.
The freeform generic use of kurum is shown in 5-90, and its classificatory use in 5-91.

5-90  kurum-ninggi wurrbum-Ø-da
       caneggrass-INSTR 3plBash-3sg-hit
       spear SU Perf DO
They speared it with caneggrass spears.

The generic is preposed to class member terms and copied as a bound generic onto modifiers. As was true for syiri, the bound generic has the full unreduced form of the freeform generic.

5-91  ep  kurum  yiliyili  ep  kurum  tulunguk
       GUESS caneggrass mangrove GUESS caneggrass ironwood
       spear  tipped spear  spear  tipped spear
Might've been a mangrove kurum spear, or an ironwood kurum spear.

5.2.10 Kini - Digging Sticks
Kini, the generic for digging implements, classifies types of digging stick.

5-92  kini manggini
       fashioned digging stick
       kini yawurr
       makeshift digging stick

5.2.11 Tyin/Tyun (K) - Woomeras
Tyin/tyun (K), the generic for the long woomeras (used in combination with kurum spears), classifies types of woomera.

5-93  tyin fenggu
       woomera used with unbarbed kurum spears
       tyin gan'gunu/
       woomera used with barbed kurum fish
       tyin dityi (K)
       spears

5.2.12 Yenggi - Fire
Yenggi, the generic for fire, classifies things inherently associated with fire.

5-94  yenggi ba
       firewood
       yenggi syarri/tyen (K)
       charcoal
       yenggi dawan/tawan (K)
       smoke
       yenggi misi/-purr (K)
       firestick (alight at one end for transporting fire)
5.2.13 Kuru/Kuri (K) - Liquid

Kuru/kuri (K) - 'water' is used as a generic classifying things (virtually all introduced by Europeans) that are 'drinkable liquid'.

5-95

<table>
<thead>
<tr>
<th>kuru</th>
<th>lengirr</th>
<th>liquid</th>
<th>bad</th>
</tr>
</thead>
<tbody>
<tr>
<td>kuru</td>
<td>yirifiny</td>
<td>liquid</td>
<td>sweet</td>
</tr>
<tr>
<td>kuru</td>
<td>beer</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>kuru</td>
<td>medicine</td>
<td>liquid</td>
<td></td>
</tr>
</tbody>
</table>

5.2.14 Variability in Noun Classification

Although noun classes in Ngan'gityemerri are generally well defined, the system is not so rigid that any nominal can belong to one and only one class. Several examples have already been encountered in this chapter, and in this section I briefly summarise the types of crossclassing that can be found.

Firstly, certain human lifestage/status/condition terms can be assigned to both the 'male' and 'female' classes (see 5-35)\(^2\).

Secondly, in 5-66 we saw that some trees having no useful parts other than their edible ones are assigned to the 'plantfood' class. However where such a 'plantfood' class prefixed noun is used in reference to the whole tree, rather than its edible fruit, any modifiers of that noun will show concord with the 'tree' class. Thus in 5-66 the head and modifying constituents of a single NP are formally assigned to different classes. This represents a rather different type of crossclassing.

Thirdly, nouns that are normally members of one class can be assigned to another class on the basis of colloquial or metaphoric extension. In the discussion of miyi, we noted that 'tobacco' which was normally a 'tree' class member, could be designated as a 'plant food' class member on the basis of its colloquial reference as 'shit' (see 5-69).

Fourthly, some variation is encountered in the class assignment of objects that meet the defining criteria of more than a single class. Consider, for instance, a wooden weapon, such as a tyulut spear. This is typically

\(^2\)These gender-variable nominals highlight the grey area between the word classes 'noun' and 'adjective'. A principal difference between nouns and adjectives in Ngan'gityemerri is that nouns typically belong to a single noun class, whereas adjectives concordially agree with any noun they modify. Nominals like nugumang (in 5-35) generally have the characteristics of nouns, but in their capacity to be gender-variable are more like adjectives.
classed with respect to its function/use as a member of the 'bamboo spear' class (see 5-88), but consider 5-96.

5-96 tyulut yerr-nem ngerim-wurity-ngirim
   hook Tr -3sg 1sgHands-fix - 1sgSit
   spear cl PRO SU Pres SU Pres
I'm fixing his hook spear.

Here the possessive pronoun modifying tyulut -'hook spear', bears the 'tree/thing' class bound generic yerr- rather than the 'bamboo spear' class bound generic yeli-. This shift in class allocation is motivated by focus upon the spear, not as a piece of wood that is being used as a spear, but rather as a piece of wood that is being mended in the way that other wooden objects are.

Similarly, the statement that one 'has no matches', using the negative particle minbe- suffixed with a generic, could be given as either 5-97 or 5-98.

5-97 match minbe-yenggi
   Neg - fire
I've got no matches

5-98 match minbe-yawurr
   Neg - tree
I've got no matches

That is, matches can be classified as 'tree/things' because they are pieces of wood, or as 'fire' by virtue of their function. Most of the examples of crossclassing in Ngan'gityemerri are facilitated by the potential to variously view certain objects with respect to their 'inherent nature' or 'function/use' features. This suggests that the classes of wooden implements 'bamboo spears', 'canegrass spears', 'hand held weapons', 'woomeras', and 'digging sticks', could usefully be organised hierarchically as sub-classes of yawurr 'tree/things'. Higher level classification as yawurr is based on 'inherent nature' features, whereas lower level classification as yawul, kurum, syiri, tyiny or kini, is based on 'function/use' features.

5.3 Types of Generic - Modifier Construction

So far we have seen that generics, be they classifier-like freeforms, or noun class-like bound forms, can be used in a variety of NP constructions. Freeform classifiers co-occur with specific nouns in a generic-specific NP type.
They were eating an echidna.

Then you were picking tamarinds.

Specific nouns can be used without classifiers (5-101), and conversely classifiers themselves can constitute complete NPs (5-102).

Where's the didjeridu?

He picked up the didjeridu.

On the other hand bound generics typically attach to the member terms of their respective classes, and additionally are concordially attached to modifiers (exceptions noted include the 'bodypart' class prefix which attaches to member terms only, and the 'bamboo spear' class prefix which attaches to modifiers only).

A big kangaroo...

An NP can also consist of simply a bound generic attached to a modifying element.

A good woman...

The bound class marker in this type of construction is not treated as concordially attached (as it is in an NP which includes a specific class member term), but constitutes the head of the NP. Example 5-104 above, then, is an NP of the head - modifier type. This section examines the range...
of modifying elements that can be headed by bound class generics, producing this type of head - modifier construction.

5.3.1 Generics + Simple NP modifiers

Firstly, as evident in the examples of modified nouns in the preceding sections of this chapter, modifiers can be adjectives, pronouns, anaphoric demonstratives, deictics and numerals. These modifier types in head - modifier constructions are demonstrated in 5-105.

5-105 wur-yubu a good woman
   Fcl -good
wur-ngayi my woman
   Fcl -1sg PRO
wur-nyin that (previously mentioned) woman
   Fcl -ANA
wur-kinyi this woman
   Fcl -this
wur-wunggume a certain woman
   Fcl -one

5.3.2 Generics + Complex NP Modifiers

Additionally, NPs can be headed by bound generics. As is evident in examples 5-108 and 5-110, the bound generic can head a noun that itself carries a class prefix. As the modifying element is becoming increasingly complex, at this point I will adopt the convention of indicating the scope of the leftmost generic by placing the modifying element over which it operates, in square brackets.

5-106 wa-[Darwin-nimbi] 5-107 wur-[wusye dadirrmade]
   M- -SOURCE F -hair curly
   cl cl
A man from Darwin... A curly haired woman...

5-108 dam -ngi-fi -me yerr-[de-tyerr]
   3sgPoke-1sg-Mp-hand Tr -Bp-mouth
   SU Perf DO cl cl
He handed me the telephone (the mouth thing).

5-109 yerr-[meringgi yubu]-nide ngimbi-pe
   Tr -shade good -LOC IplincSit-Fut
   cl SU Irr
Let's sit under a good shaded tree.

5-110 wa-[de-pi kerre] wani-pagu -pe
   M- Bp-head big 3sgGo-HITH-Fut
   cl cl SU Irr
The boss (big-headed man) is coming!
5.3.3 Generics + Verbal Clause

Bound generics can also head a clause. The resultant nominalised clause is fully finite, bearing all the pronominal crossreferencing and tense marking morphology that it would as an independent clause.

5-111 wa-[wedimuy] yedi -tye wa-[deme -Ø -pi -yiri -tye -yedil]
M- little boy 3sgGo -Past M -3sgHands-3sg-head-numb-Past-3sgGo
cl SU PImp cl SU PImp DO=make shamed SU PImp
When he was a young boy he was shy.
(lit: ....he was a shy male.)

The clause forming the modifying element can consist of not only just of a complex verb, but can be a fully expanded clause containing nominals, particles, adverbs, etc. Consider the examples below.

5-112 musyulng wudini -fiftyi-tye wakay yerr-[nem]
swag 3sgShove-roll -Past finish Tr -3sgM
SU PImp up cl PRO
She rolled the swags right up, those swags of his,
yerr-[dede peyi-nimbi use 'im-ngirrminygu]
Tr -camp in -SOURCE -1plexDo dl
cl place SU Perf SU
the ones we'd used from their place.

The nominalisation of clauses by heading them with class generics in this way, is the main strategy for deriving formal relative NPs in Ngan'gityemerri. As noted above, nominalised clauses are fully finite, having the form of independent clauses. It appears that in those Australian languages having a general subordinate clause type, such clauses are typically finite and have a fairly loose paratactic relation to the main clause (see for instance Merlan (1983:135)). In Ngan'gityemerri however relative clauses, though finite, are formally nominalised by the attachment of noun class prefixes. I am unaware of any other Australian language for which this use of noun class markers has been reported. Given their status as nominals, generic-headed clauses need not be considered subordinate to a main verb, but simply as modifiers of arguments of the main verb. Thus in 5-112 above, musyulng 'swag' is the O of the verb 'roll up', and the two generic-headed NP's yerr-nem 'the thing of his' and yerr-dede peyi-nimbi use 'im-ngirrminygu 'the thing we'd used from his house', are both nominals modifying that O NP. Likewise the nominalised clause in 5-113 below modifies the A NP (encliticised with agentive -ninggi). Where the specific noun is omitted, as in 5-114 to 5-116, the nominalised clause stands as a head - modifier type NP and fills the argument role of the predicate.
rather than modifying an NP in that role. This directly parallels the analysis given for non-verbal modifying elements in 5.2 above (see eg 5-104 wur-yubu) where a class prefixed simple nominal modifier can either modify a given noun or, in the absence of a given head noun, constitute a head-modifier NP. There are no constraints on the argument roles that nominalised clauses can either modify, or in themselves constitute. In 5-112 above and 5-113 below the nominalised clauses modify the O and A of the verb, in 5-115 the nominalised clause is an ASSOCIative argument of the verb, and in 5-116 and 5-117, the nominalised clauses are verbal arguments in the local case roles SOURCE and LOCative, respectively.

5-113 ticket kinyi nginimem pay 'im-meny watypela -ninggi
this already 3sgDo whitefella-AGENT
SU Perf

This (plane) ticket has already been paid for by that whitefella,
wa-[wunu-pefi Melbourne ngadde -nime-tye] M-there -THITH 1dlexGo -tr -Past
cl SU Plmp SU

that man who went there to Melbourne with us two.
(lit: that one who the three of us went to Melbourne)

5-114 yerr-[ngiini-handbag-gumu] yerr-[wedimuy] yerr-[every room
Tr -KIND- -SEMBL Tr -small Tr -
c] cl cl cl

That whitefella (hotel receptionist) picked up a thing like a kind of handbag,

nem key dim-nyine fill 'im up-mem] watypela nyin me -wa
3sgM 3sgSit-FOC -3sgDo ANA 3sgSnatch-pick
PRO SU Pres SU Pres SU Perf up

a small thing, a thing filled up with the keys to every room.

5-115 mityity wagarri pey-endi widdibenggu
white two in -SAME 3plStand dl
woman place SU Pres SU

There are two white women (security guards) standing there

yerr-[tyagani-merrendi gentyerrmigi-baty knife]
Tr - what -LEST 2plHands dl-hold
c) SU Irr SU
(with) a thing (metal detector) lest you have something like a knife.

5-116 ngatya yumu-ne -gumu, yerr-[fepi minbadi nem
father 2sgSay-3sgM-TRY Tr -hill big 3sg
SU Irr IO cl PRO
'Daddy, try suggesting to him that he get a jacket
shop-nyine girribem\], nyin-nimbi jacket wumu -wa,
-FOC 3sgStand ANA-SOURCE 3sgSnatch-pick
SU Pres SU Irr up
from (the shop) that is Peppimenarti's shop'.
(the Darwin shop that supplies the Peppimenarti store)

Section 6.1 examines the way in which NPs can be, though are not
obligatorily, marked for certain case functions with a set of enclitics (see for
instance, 'agentive' -ninggi in 5-113 above). Note though that nominalised
clauses functioning as verbal arguments, as in 5-114 to 5-116, cannot have
their local or syntactic case roles marked with these enclitics. In the same
way that case enclitics are freely omitted from even simple NPs, this is
unlikely to result in ambiguous relations with the verb, as the role of the
nominalised clause will generally be evident from the thematic content and
the meaning of the predicate. Where the role of a nominalised clause
requires overt specification, this can be achieved by attaching the case
enclitic to the anaphoric demonstrative, as demonstrated in 5-116.

Consistent with the unconstrained roles that nominalised clauses can
fill as arguments of the verb, there are likewise no constraints on the types
of relations that can hold between the head generic and the verb of the
nominalised clause. Thus in 5-113 and 5-116 the head of the nominalised
clause is the S of the intransitive nominalised verb, in 5-112 it is the O, and
in 5-115 where the generic nominalises a merrendi subordinate clause (cf.
6.2.3), the head is not an argument of the nominalised verb at all.

Finally, having established that head - modifier constructions consist
of a noun class generic as proclitic to a wide range of modifier types, ranging
from simple nominals such as adjectives, through to fully finite clauses and,
as 5-117 below demonstrates, strings of finite clauses, we should ask
ourselves 'how do we determine the scope of the head generic?'

5-117 yentyi -ngirrki-tye yerr-[watypela nem, wannim-derrri-tyerr,
3sgTake -Idlex -Past Tr - whitefella 3sg 3plGo -back -halt
SU Plmp DO cl PRO SU Pres
He took the two of us onto that thing of whitefella's, that they
stand still on, and
yentyin -yirrimbin, wannim-fel wun -ambirri]
3sgTake-3sgGo* 3plGo -jump there-ahead
SU Pres SU Pres SU Pres
it takes them and they jump off up ahead there at the top.
(i.e. escalators)

In an example like 5-117 the string of four clauses (one verbless, three
verbal) that is marked (by the square brackets) as falling within the scope of
the noun class generic, must be delivered in a single intonation contour,
and without pauses between any of the clauses. If for instance in 5-117 above, there was a pause after *watypela nem*, and the verb *wannim-derri-tyerr* began a new intonation contour, then the scope of the generic head, *yerr-*, would be understood to operate over *watypela nem* only.

5.3.2 Ngan- Relative Locational Clause Marker

Section 2.4 looks at the role played by the morpheme *ngan-* in combining with the major bodypart terms to produce static locative CVSs. *Ngan-* also introduces relative locational clauses. In this capacity *ngan-* functions in a manner similar to the noun class proclitics discussed in the preceding section, and it is for this reason that I have chosen to include the discussion of *ngan-* here.

Relative locational *ngan-*, functioning as a proclitic, introduces clauses that are given as the destination of verbs of motion. The relative locational clause can be a fully finite verbal clause, as in 5-121 to 5-123 below, or can be reduced to simply an NP, as in 5-119 and 5-120. As shown in 5-118 below, reduction of a *ngan-* clause to an NP is the norm where that NP is the subject of an existential clause.

5-118 ngarany -fi -pal ngan-mawuny (girribem)
1sgPokeDtr-Mp-return LOC -ironwood 3sgStand
SU Perf REL SU Pres
I went back to (where) the ironwood tree (stands).

Where *ngan-* has scope over a clause that has been reduced to just an NP, the relative locational clause will therefore be translated as 'to the place where NP is'.

5-119 kak -ambirri yedi -tye ngan-Darwin
in -ahead 3sgGo -Past LOC-
motion SU P1mp REL
He's already gone on to (the place where) Darwin (is).

5-120 darany -fi -pal ngan-dede nem
3sgPokeDtr-Mp-return 'LOC -camp 3sgM
SU Perf REL PRO
He went back to (the place where) his camp (is).

Where *ngan-* has scope over a full verbal clause, the relative locational clause will designate 'the place where CLAUSAL PROPOSITION happens' as the destination of a verb of motion. Again, square brackets indicate the scope of the relative clause.
We went back to (the place) where they were painting fenceposts.

(The whistle ducks we were hunting rose up and) flew around then landed back at the billabong (that was the place where) we had just previously come from.

(During Cyclone Tracy the sea washed into Fanny Bay Gaol), into that place where they hang people, that pit (that the gallows are in) was full of water, (it even came right up) into the place where we (prisoners) were sitting inside.

Note that the sense of 'destination of a motion verb' that conveys in this relative clause structure is compatible with the 'endpoint location' sense of the nominal enclitic -nide (see 6.1.6). Indeed both -nide can co-attach to an NP, as in 5-124

You came to (the place which is in) my camp.

However -nide cannot be compatible with the 'static location' sense attributed to -nide in 6.1.6.13.

13In this respect -nide differs from an otherwise similar morpheme in Marrithiyel. The Marrithiyel form ni corresponds very closely to Ngan'gityemerri -nide in both its combination with major bodypart terms to form a CVS, and in its relative clause function (Green 1989:300-7). However Marrithiyel ni appears to have a more general relative function, in that it is not restricted to a locative/destination interpretation, and can be compatible with static location verbs, as in the example below taken from Green (1989:301). (While I have supplied Green's translation, for comparative purposes I have taken the liberty of providing the interlinear gloss in terms of the conventions used for Ngan'gityemerri).
5.4 Noun Class Generics with *Tyen*- 'what' and *Minbe*- 'negative'.

Noun class generics can be combined with *tyen*- 'what'. The combination of *tyen* and class marker X, asks 'what kind of X class member is this?'. *Tyen*- has been found to combine with the 'animal', 'plantfood', 'tree' and 'bodypart/country (see 5.2.4)' generics. As listed in 5-126, it is the degenerate bound generics of the 'plantfood', 'animal' and 'bodypart/country' classes that combine with *tyen*-; but the freeform classifier generic of the 'tree/thing' class (with assimilation of initial y → n).

\[
\begin{align*}
5-126 & \quad \text{tyen-nawurr} & \quad & \text{what kind of tree/thing is this?} \\
& \quad \text{tyen-mi} & \quad & \text{what kind of plant food is this?} \\
& \quad \text{tyen-ga} & \quad & \text{what kind of animal is this?} \\
& \quad \text{tyen-de} & \quad & \text{what part of the country/which place?}
\end{align*}
\]

The particle *minbe/minde* (K) 'negative' also combines with generic terms giving the privative sense of 'the absence of a member of class X'. As noted for *tyen*- above, it is the bound degenerate generics of the 'plantfood' and 'animal' noun classes that combine with *minbe* in this way;

\[
\begin{align*}
5-127 & \quad \text{mi-meli minbe-mi-nyine} \\
& \quad \text{Pl-purple Neg -Pl - FOC} \\
& \quad \text{cl plum cl} \\
& \quad \text{There's no purple plums now!}
\end{align*}
\]

\[
\begin{align*}
5-128 & \quad \text{gagu minbe-ga-wurru yenim-way -me} \\
& \quad \text{animal Neg -A -UNSATIS 3sgGo -empty-hand} \\
& \quad \text{generic cl SU Pres} \\
& \quad \text{He's got no beef, he's emptyhanded.}
\end{align*}
\]

but the freeform classifier-like generics of all other noun classes/classificatory sets.

\[
\begin{align*}
5-129 & \quad \text{peke minbe-yawurr} \\
& \quad \text{tobacco Neg -tree} \\
& \quad \text{generic}
\end{align*}
\]

(I have) no tobacco.

\[
\begin{align*}
apu & \quad \text{gangi-ya ni muku} \\
& \quad \text{there 1sgSit-Past REL woman} \\
& \quad \text{SU Realis} \\
& \quad \text{I was sitting there, where the women (go).}
\end{align*}
\]
Although the terms mipurr/yedi(K) 'man' and falmi 'woman' have not been treated as generics in this chapter (see reasons given in 5.2.1), they do pattern with other generics in combining with minbe/minde(K) in this kind of privative construction.

Note that the bound generics in 5-127 and 5-128 are unusual in two respects. Firstly in all the other patterns of their occurrence (discussed throughout this chapter) bound generics function as either proclitics, or in some cases as prefixes (see 5.5). In combination with tyen- and minbe- however, they appear to function as suffixes. Secondly, as a suffix the 'animal' class bound generic has the form -ga, whereas as a proclitic/prefix it has the form a-.

5.5 Phonological Status of Bound Class Generics

All the freeform generics listed in Table I function as independent phonological words. Here I am more concerned with the phonological status of the bound generics which are split between prefix and proclitic. This distinction is based on the ordering of phonological processes in Ngan'gityemerri and results in different levels of phonological dependency operating between the host nominal and the bound class generic.

Cliticisation is a late-ordered process in the sense that clitic attachment to a nominal root takes place after all other phonological processes - stress assignment, assimilation, vowel harmony etc. Proclitics
therefore, despite being word initial, do not bear stress, and are not subject to any phonological smoothing processes (see 2.4.4.1).

Prefixation, on the other hand, is ordered before all other phonological processes are applied, resulting in, among other things, the treatment of the prefix as part of the word for the purpose of stress assignment. Prefixes therefore do bear stress and are subject to such phonological smoothing processes as diphthongisation, vowel harmony etc..

With respect to this distinction the nine bound class generics fall into two groups. The first group, consisting of wa-, wur-, awa-, yeli-, function as proclitics to the head and are copied as proclitics onto any modifiers. e.g.

5-134 wa-yédi wa-kérre
   M-man M-big
   cl cl
   A big man...

5-135 wur-gúnigúni wur-wúnu
   F -old woman F -that
   cl cl
   That old woman.

The second group of bound class generics, consisting of a-, mi-, yerr-, wu-, dV-, function as prefixes to class members, but as proclitics where they attach to modifiers. This can be seen in the stress marking on the examples below.

5-136 á -matyi a -kérre
   A-kangaroo A-big
   cl cl
   A big kangaroo...

5-137 yúri -gárrityinmuy yuri ngáyi
   striker-boomerang striker 1sg
   PRO
   My boomerang...

5-138 yérr-gi yerr-syári
   Tr -pandanus Tr -dry
   cl spiralis cl
   A dried up pandanus..

In terms of cross-linguistic generalisations that have been made about the behaviour of clitics (e.g. Klavans 1980), the split phonological status of this second group of class markers is quite anomalous. Looking at the
system as a whole, it seems most likely that these bound generics developed as proclitics to both class member and modifying nominals. This pattern is still manifested among the first group, and is true for group two modifiers. However the attachment of group two bound generics to class members appears to have undergone de-cliticisation, their reanalysis as prefixes evidenced by a shift to phonological dependency on the root that is manifest by both the generic's capacity to bear stress marking and to undergo vowel harmony rules etc.
Chapter 6

Enclitics

6 Overview

Ngan'gityemerri employs a system of sixteen enclitics that form a word class. A single one of these, ngini-/ngani-(K) 'KIND' (see 6.2.7 below), is in fact a proclitic, not an enclitic. However, because it patterns with the class of enclitics in all respects other than position, I treat it as a member of the enclitic class. All comments made about enclitics in this section can be taken to be equally applicable to 'KIND'.

The set of sixteen enclitics can be divided into three types defined by the operational scope of the enclitic in a given function. 'Nominal enclitics' have scope over their host NP only. This group consists of the syntactic and local case enclitics, -ninggi 'AGENTive/INSTRumental', -ne/-ngini(K) 'PURPosive', -werre/werri(K) 'ASSOCiative', -nimbi 'SOURCE', -nide 'LOCative', -pagu 'VIA'. The various functions of these six nominal enclitics are discussed in 6.1.

The three 'verbal enclitics', -ne/-ngini(K) 'INTENTion', -pefi 'INCHoative/DURative/COTEMPoral' and -gumu/-gimi(K) 'WHILE', have strictly aspectual functions within the verb. While the verbal use of -ne/-ngini(K) signalling 'INTENTion' is clearly related to its nominal usage as a 'PURPosive' case marker, the verbal usages of -pefi and -gumu/-gimi (K), appear to bear no similarity to the semantics of their propositional use. These three verbal enclitics are examined in 3.4.4.

The third type of enclitic, termed 'propositional\(^1\) enclitics', have scope over an entire clausal proposition. They can be used adnominally, attached to the final constituent of an NP, or predicatively, attached to the verb stem. In their predicative use they fill the same position as the 'verbal enclitics' discussed in 3.4.4. The propositional enclitics -nimbi 'CAUSative', -pefi 'THITHER', -pagu 'HITHER', -merrendi/-nana(K) 'LEST', -yirre 'CORRECT', -yendi 'SAME', -gumu/-gimi(K) 'SEMBLative', ngini-/ngani-(K) 'KIND',

---

\(^1\)I use this term in a slightly different way to some previous writers. For instance Laughren (1982:133) defines 'propositional particles' as having similar scope (i.e. over the whole proposition), but restricts her use of this term to those particles that 'indicate the speaker's attitude to or judgement concerning the proposition expressed by the clause to which the PP is attached'. My use of 'propositional' is concerned solely with the operational scope of the enclitics, some of which, like -wurru 'UNSATISfactory', do indicate speaker's attitude/judgement, though others, like -gumu 'SEMBLative' and -nimbi 'CAUSal', in encoding the relations holding between an NP and predicate, fall within the concerns of what would generally be called 'case'.

-napa 'JUST', -nawa 'INSTEAD', and -wurruru 'UNSATISfactory', are examined in 6.2.

Several members of the set of enclitics belong to more than one type. For instance, as a verbal enclitic, -gumu has the function of marking temporal subordinate clauses, whereas as a propositional enclitic it indicates that one entity/event resembles another.

6.1 Nominal Enclitics
6.1.1 -ninggi AGENT

As established in 3.2 above, core case relations are obligatorily and explicitly cross-referenced within the verb. Consequently the specification of these relations through case inflections on NP's filling these case functions is not required to clarify the identity of core case roles. Indeed verbal cross-referencing facilitates the widespread omission of contextually established NP's in core roles. No case suffix is available for those NP's that are cross-referenced within the verb as direct objects. NP's cross-referenced as 'goals' can be functioning in peripheral purposive case roles, in which case they can take the purposive enclitic -ne/-ngini(K), or as reflexives, or the goals of predicates (like 'tell', 'give'), in which core roles they can bear no case inflection.

The subject of a verb is the only core syntactic role for which case inflection is available. These can be subjects of either high-transitive verbs or those low-transitive verbs that have a non-subject core argument (cf. 4.2). The agentive enclitic -ninggi is not universally applied to transitive subject NP's, but is reserved for those which are semantically or pragmatically 'marked'. NP's can be semantically marked in the sense that their identity in the agentive role contravenes culturally determined expectations regarding actor identity in specific types of activity. In 6-1 below, for instance, markedness results from the low likelihood of an inanimate entity filling the role of a 'controlling agent'.

6-1 waya-ninggi dam -ngi -syarr
wire -AGENT 3sgPoke-1sg -scrape
SU Perf DO
The barbs (of the barbed wire fence) scratched me.

And in 6-2 it results from the culturally determined expectation that women do not use rifles.
His wife used to shoot crocodiles (for a living).

The identity of an actor can require clarification where any of three pragmatically determined conditions hold. Firstly, where the subject and object of a verb are both 3rd person singular, or both 3rd person plural, the bound pronominal morphology on the verb does not suffice to adequately track participant identity. This is especially true where there are switches in the identity of subject/object roles and freeform nouns or pronouns in either role are free to appear in any order with respect to the verb. In 6-3 below the object of the first clause *wa-wunu* 'that man', is the agent of the transitive verb in the second clause and this switch in role is disambiguated through the attachment of *-ninggi*.

6-3  
*wa-wunu wupun - Ø -ta, e wa-wunu-ninggi dam -Ø -pawal*

*M-there 3sgSlash-3sg-hit and M -there-AGENT 3sgPoke-3sg-spear*  

*cl SU Perf DO cl SU Perf DO*

He hit that man, then that man speared him.

Secondly, *-ninggi* is attached to NP's whose identity in an agentive role may be unpredictable because they are either new participants to a text, or are previously introduced participants whose thematic status is judged by the speaker to have waned to the extent that the listener will need explicit re-statement of their identity. This use of *-ninggi* is evidenced in its widespread textual occurrence in after-thought constructions, where a speaker's assessment of his listener's difficulty in tracking subject reference prompts him to add an agentive NP that is typically separated off from the rest of the clause by a distinct pause.

6-4  
*yarany -fi -pal kinyi yini -wurrkama-tye peypa nyinyi, 2sgPokeDtr-Mp-return here 2sgSit-work -Past paper 2sg*  

*SU Perf SU Plmp PRO*  

You came back here and were doing your paperwork.

*ngayi nginge-tye, deminy -ngi-du ulgumen -ninggi 1sg 1sgLie -Past 3sgHands-1sg-touch old women-AGENT*  

*PRO SU Plmp SU Perf DO*  

I was lying (asleep) when she(/he) woke me up...my wife did.

6-5  
*Aya ngambani-pe, meny-ngiti ... Dianne-ninggi hey 1dlinc Go -Fut 3sgSay-1sg -AGENT*  

*SU Irr SU Perf IO*  

'Hey !, I'm coming with you', she told me...Dianne that is.
Thirdly, -ninggi is typically attached to NP's whose agentive role is being stressed in correction of mistaken assumptions about their identity.

6-6 minmi, ngayi-ninggi ngiminy-nge

No! it was me that told her.

In summary then, it can be seen that while -ninggi fills the general criteria of a 'case' enclitic, in its disambiguation of semantically marked and unpredictable agent identity it functions to meet the requirements of discourse cohesion rather than clause-internal syntax.

NP's in the role of subject of a transitive verb have also been found to occur with the 'cause' enclitic -nimbi. This minor phenomenon is discussed in 6.2.1.

6.1.2 -ninggi INSTRUMENT

Instrumental case function is also marked with -ninggi, homophonous with agentive -ninggi discussed above. Homophony of ergative/instrumental case forms is widespread among Australian languages (Dixon 1980:304, Blake 1975:44), and the semantic linkages between their functions have been widely discussed (see for instance, Wilkins 1989:170). Typically two cases are recognised on the basis of distinctive syntactic behavioural characteristics. In Ngan'gityemerri instrumental -ninggi can be distinguished from agentive -ninggi on a number of grounds. Firstly, they can co-occur.

6-7 ngan'gi kamu-ninggi diny -ngiti-tyerrakul wulmen-ninggi

= Marrithiyel

The old man addressed me in Marrithiyel.

And as the above example also demonstrates, agentive -ninggi attaches to NP's that are obligatorily cross-referenced within the verb, whereas the peripheral case role of the instrumental NP makes it ineligible for any such pronominal cross-referencing.

In addition to 'the language in which one speaks', as in 6-7, instrumental -ninggi marks any entity that the subject uses to perform the
activity described by the verb. These may be bodyparts\textsuperscript{2}, as in 6-8, but are typically objects held in the hands, as in 6-9 and 6-10.

6-8 \textit{deme melpe-ninggi} \textit{dineny-ngi-tyamu-baty} \\
\textit{hand flat -INSTR 3sgHeat-1sg-cheek -hold} \\
\textit{=palm} \textit{SU Perf DO} \\
He slapped my cheek with the palm of his hand.

6-9 \textit{muy-fintyifintyi-ninggi} \textit{bengin-kin-wul} \\
\textit{crook -INSTR 3sgBash-? -pull} \\
\textit{SUPerf} \\
She pulled (the central pandanus shoots) within reach with a crook (a long stick with a barbed fork at one end).

6-10 \textit{ngunngun-ninggi} \textit{wupun -tyirri -tu} \textit{wamanggal} \\
\textit{percussion-INSTR 3sgSlash-navel-cut wallaby} \\
\textit{flint SU Perf =burst guts} \\
He gutted the wallaby with a flint.

Instrumental \textit{-ninggi} can also mark larger and even animate entities used in performing actions, such as cars and dogs and horses, though the less that entity falls within the full control of the subject, the more likely it is to function as a comitative rather than an instrumental NP (see \textit{-werre} 6.1.4).

In contrast with the agentive function of \textit{-ninggi}, instrumental NPs can be peripheral arguments to mono-valent low-transitive verbs, as in 6-11 below.

6-11 \textit{crutch-ninggi} \textit{yenim-lali} \\
\textit{-INSTR 3sgGo -around} \\
\textit{SU Pres} \\
She's getting about on crutches.

Note that the instrumental suffix is frequently omitted from NPs whose instrumental role is predictable through a conventional association with a particular verb.

6-12 \textit{yenggi} \textit{ngi} \textit{-pup-pe} \textit{palayin (-ninggi)} \\
\textit{fire 1sgShoveDtrS-rub-Fut firesticks-INSTR} \\
\textit{SU Irr} \\
I'll rub up a fire with firesticks.

The function of \textit{ninggi} as the particle 'DESPITE', is examined in 7.5

\textsuperscript{2}Note that, as discussed in 3.5.2, bodyparts filling an instrumental role can not be syntactically incorporated into the verb complex.
6.1.3 -ne/-ngini(K) PURPOSIVE

The enclitic -ne/-ngini(K) marks the purposive complements of actions or states. That is, purposive marked NP's are given as the stimuli or 'what one has in mind' when one does or feels something. As response to stimuli is dependent on the notion that the respondent is cognizant and sentient, it is uncommon to find purposive complements given as adjuncts to states or activities that have non-human subjects. Lower animates can be said to 'look about for food' etc. but there are few such examples in any texts I have recorded.

What one 'has in mind' may be something one wants to/acquire;

6-13 kuru -ne ngambani-pe club
liquid-PURP 1dlinC Go -Fut
generic SU Irr
Let's go to club for a beer.

an activity one wants to perform;

6-14 ngara -mbi-fi -pal -pe ki -ne ngu -nyi-ta -pe
1sgPokeDtr-2sg-Mp-return-Fut fight-PURP 1sgSlash-2sg-hit-Fut
SU Irr IO SU Irr DO
I'm getting back to you, for a fight, I'm going to belt you !

a person on whose account one does something;

6-15 kin-ninggi ngani-pe a-yinimbi-ne
this-way 1sgGo-Fut A-hornet -PURP
SU Irr cl =mother-in-law
I'm going round this way for my mother-in-law (in order not to run into her).

6-16 (nyinyi-ne) ngudum (-mbi) -mi -tyuk
2sg -PURP 1sgShove -2sg -val-send
PRO SU Perf IO inc
I sent it for you.

a person/thing that induces an emotional response;

6-17 falmi nem-ne dini -di -tye
woman 3sgM-PURP 3sgSit -cry -Past
PRO SU Pimp
He was crying for his wife.
or the topics of cognitive or speech acts, i.e. what one knows, thinks, or talks about;

6-20 de-tyeri-werre ngaganim peke-ne
Bp-ear -ASSOC 1sg Go tobacco-PURP
cI SU Pres
I'm experienced in cigarette smoking.
(because it's something that I do, I have an understanding of it)

6-21 ngan'gi kinyi ngimi-mbi-ngini minde detyengi-ngini
NgK story this 1sgSay-2sg -Fut Neg today -PURP
SU Ir I r I O
This story I'm going to tell you about is concerned with distant events.

6-22 yerr-mentyi nyin ngunu yerr-lafuganying-ne
Tr -throat ANA HOW Tr placename -PURP
cI =song ABOUT cI
You know that song... (the one) about Lafuganying.

Note that purposive marked human nouns can be cross-referenced in the verb with the 'indirect object' set of bound pronouns where they are interpreted as benefactives, as in 6-16, and can be cross-referenced with the 'implicated argument' set of bound pronouns where they are interpreted as the source of an (adversative) emotional state, as in 6-18. Normally where a purposive NP is cross-referenced within the verb its freeform equivalent would not also be included. Thus the bracketed elements in 6-16 and 6-18 should be read as either/or.
Get me a serrated (rib-having) knife!

She's promiscuous.

It's no good here, the water's got a saltwater crocodile (in it)!

The attributes that are associated with an entity in this way need not be permanent, as can be seen in 6-26 and 6-27.

She's pregnant.

She's all steamed up (fight-having), she might hit you!

-werre is used derivationally in naming things in terms of such associations, i.e. something is an 'X haver' where X is a characteristic part. e.g. debi-werre (leg-ASSOC) 'trousers', depi-werre (head-ASSOC) 'hat', etc.

-werre also has a comitative function, marking an entity that accompanies the subject in some activity. Prototypical comitative NPs are humans, as in 6-28, considered to possess a degree of self-will, and although they can be directed and controlled to some extent, they do not fall fully under subject control.

That bloke I used to play with before...

...well he's got a wife now.
They were searching about on horseback for gold.

(Ancestral Pelican) came down from that hill on a raft, pushing herself along with a pole.

The notion of 'accompaniment', as marked by -werre, differs from the notion of 'instrumental use', marked by -ninggi-, in terms of the degree to which the entity in question falls within subject control. In contrast to comitative NPs, the prototypical instrumental NP is inanimate, devoid of self-will, and in human hands is totally manipulable. In 6.1.2 we saw that speech, tools, weapons etc, are the best examples of instruments, and are the kinds of entities that will be always marked in that role with -ninggi.

However, between self-willed humans that one accompanies, on the one hand, and inanimate objects that one uses, on the other, there is a grey area of 'non-human animates' and 'not-very-manipulable inanimates' which can be variously viewed as filling either comitative or instrumental roles. Thus, in view of their self-will, horses are treated as comitative in 6-29. Likewise in 6-30, an inanimate raft is treated as a comitative, in view of its limited manoeuvrability (especially in contrast with the handheld steering pole). Note though that in both these examples the horse or raft could quite acceptably be viewed as functioning in an instrumental role and correspondingly marked with -ninggi. 6-31 below demonstrates the acceptability of variously viewing dogs in an accompanying role, or in an instrumental role.

They were tracking him with dogs.

They were tracking him with dogs.
The functions of -werre and -ninggi clearly overlap here. Things that fall fully within subject control, like speech, tools, weapons etc, are most likely to be designated as 'instruments' by being marked with -ninggi. On the other hand, things that fall less fully under subject control, things which can be considered to possess a degree of self-will, like humans and higher-animates, are most likely to be treated as comitatives and marked with -werre.

6.1.5 -nimbi SOURCE

-nimbi has two related functions, glossed as 'SOURCE' and 'CAUSE'. As a marker of 'source' -nimbi can only function adnominally as an enclitic to the final constituent of an NP, denoting that NP as a spatial or temporal point of origin. Marking 'cause' however, -nimbi can function either adnominally, marking an NP as the cause of some resultant condition, or predicatively, denoting an entire clausal proposition as the cause of some resultant proposition. Functioning predicatively -nimbi is an enclitic to the verb root. The adnominal 'source', adnominal 'cause' and predicative 'cause' functions of -nimbi are contrasted in 6-32 to 6-34.

6-32 wembem-nimbi menggeny
  house -SOURCE 3sgArrive
  SUP Perf
  He emerged from inside the house.

6-33 kuru -nimbi ngini -kukuduk-tye dem -ngi-mi-tit
  liquid-CAUS 1sgSit -drink -Past 3sgHands-1sg-eye-raise
generic SUPImp redup SUPER DO
  I have a headache from the beer I was drinking.
  (Had it not been beer, I'd be alright)

6-34 kuru ngini -kukuduk-nimbi-tye dem -ngi-mi-tit
  liquid 1sgSit -drink -CAUS-Past 3sgHands-1sg-eye-raise
gen. SUPImp redup SUPres DO
  I have a headache from drinking beer.
  (Had I not been drinking beer, I'd be alright)

Those enclitics that have the capacity to attach to either nouns or verbs are classified as 'propositional enclitics', whereas those that attach only to nouns that stand in core, peripheral or local syntactic relations to the verb are classified as 'case enclitics'. In accordance with this classification, the 'source' function of -nimbi is examined in 6.1.5.1 below, but the discussion of the 'cause' function of -nimbi can be found in 6.2.1.
6.1.5.1 Spatial Source

With verbs of motion and transfer -nimbi marks the NP to which it is attached as the source location of the activity.

6-35 nintyinintyi-nimbi wudeny -fel
   bush -SOURCE 3sgShoveDtrD-bounce
   SU Perf
   It jumped out from the bushes.

6-36 gagu yudu -ngurr-puty-pe kin-nimbi
   animal 2sgShove-1plex -chase-Fut here-SOURCE
   gen. SU Irr  IO
   You'll scare the (fish) away from us.

6-37 ngirrsye -nyi-wurr-pe ngityirr abarri-nimbi
   1plexPull-2sg -enter-Fut ground soft -SOURCE
   SU Irr  DO
   We'll pull you out of the bog.

6.1.5.2 Multiple Enclitics

In Ngan'gityemerri the minor phenomenon of multiple case enclitics is essentially restricted to combinations of the 'local' case forms, i.e. spatial source -nimbi and either or both of the locative -nide (see 6.1.6) and the directionals -pagu and -pefi (see 6.2.2). As -nimbi is almost always an element of multiple enclitic constructions, they will be briefly dealt with here.

Where motion/transfer takes place, not simply from a location, but from inside a location, then the NP designating that location will bear both locative and source case enclitics in that order.

6-38 yarany -fi -tit musyulng-nide-nimbi
   2sgPokeDtr-Mp-raise swag -LOC-SOURCE
   SU Perf
   You got up from inside your swag.

6-39 ganbi nyinnin me -wa wembem-nide-nimbi
   didjeridu ANA 3sgSnatch-pick house -LOC-SOURCE
   SU Perf  up
   He picked up the didjeridu from inside the house.

---

3This general comment does not take into account the 'indefinite' enclitic -nawa (see 9.3.3) which can co-occur with most other case enclitics.
With verbs involving activity that is projected outwards from a sourcepoint, that outward projection can be marked by suffixing the THITHer directional enclitic -pefi in addition to the source enclitic, as in 6-40.

6-40  kin -nimbi -pefi yaniyerri-pe  
here-SOURCE-THITH  2sg Go* -Fut  
SU Irr  
You'll be going away from here.

The single case I have recorded of three enclitics on a single NP involves a verb of 'outward projection' (to see) from inside a location, and consists of the locative, source and thither enclitics in that order.

6-41  dede nyinyi-nide-nimbi -pefi yirim  
camp 2sg -LOC-SOURCE-THITH  3sg Sit  
PRO SU Pres  
(Looking out) from (sitting) in your camp,  
yinyinggin fepi wedi nyin wantyirr girribem  
2sg See hill small ANA name 3sg Stand  
SU Pres SU Pres  
can you see that little hill 'Wantyirr'?

Note that in this example the notion of 'outward projection', encoded on the NP 'your camp' by the thither suffix -pefi, is given in anticipation of the verb 'to see' in the following clause.

6.1.5.3 Source of Transformation  
-nimbi also marks the original form of a thing that is transformed into something else.

6-42  mawuny -nimbi werrmim-wurity  
ironwood-SOURCE  3pl Hands-make  
SU Pres  
They make (boomerangs) out of ironwood.

6-43  mipurr-nimbi yedi -tye darany -ket gagu -nyine  
man -SOURCE  3sg Go-Past  3sg PokeDtr-cut animal-FOC  
SU Pimp SU Perf  
From being a man, (Ancestral Flyingfox) turned himself into an animal.
6.1.5.4 Temporal Source

-nimbi is attached to NP’s that designate either points in time or timespans, indicating that they are the point at which some activity or event begins.

6-44 gidin wukume apirri -nimbi yenim-Ø -mi-wap
NgK year one before-SOURCE 3sgGo -3sg -val-sit
SU Pres DO inc
He’s been married (habitually sitting with someone) since a year back.

6-45 kak-ambilri-nyine yedi -tye, monday-nimbi deminy -pat
in -first -FOC 3sgGo-Past -SOURCE 3sgHands-arise motion SU Plmp SU Perf
He’s already gone, he left on Monday.

In 6-46 below a human lifestage expression serves as a term with temporal reference.

6-46 wa-wedimuy-nimbi yedi -tye wa-deme -pi -yiri -tye -yedi
M-child -SOURCE 3sgGo-Past M-3sgHands-head-numb-Past-3sgGo cl
SU Plmp cl SU Plmp =shamed SUPlmp
From when he was a child he was always shy.

6.1.5.5 Discourse function of -nimbi

-nimbi can be attached to the anaphoric demonstrative nyin. The resultant form nyin-nimbi 'from that' is widely used in narrative to indicate that some previous event is finished and a new temporally sequential event is about to proceed.

6-47 wirriny-me -purrk-ambilri watypela mityity
3plSit -hand-clap -FIRST white white
SU Perf man woman
(At the end of the performance) the white men and women clapped first,
nyin -nimbi dam -burr-fi -tyat winnyirri nginifiny
ANA-SOURCE 3sgPoke-3pl -Mp-put 3plSee true
SU Perf IO SU Perf
and after that he set up (the video) for them, and they watched the real thing.

6.1.6 -nide Locative

The case inflection -nide has both 'spatial' locative and 'endpoint' locative functions. With stance/posture verbs and dynamic verbs that do not involve movement through space -nide indicates that the NP to which it is attached is statically located.
I'm living at Malfiyin now.

We'll warm ourselves in the sunshine.
(lit: the heat will warm us in the sun's heat)

With verbs of motion or other verbs involving movement through space -nide is suffixed to NP's that denote the 'endpoint' or position in which an entity comes to be at the completion of the activity of the verb.

They threw the billies and swags into your car.

I hung the wallaby in the tree.

Take me back to my camp.

NP's designating the endpoints of verbs of motion can optionally bear the 'thither' enclitic -pefi, in addition to locative -nide. Comparing 6-53 and 6-54 below, there appears to be no systematic difference between locative NP's and locative+thither NP's. Certainly 'arrival at' or 'entry into' the designated endpoint location is no more explicitly encoded in 6-53 than it is in 6-54.

I'm going to the store.

I'm going to the store.
Note that the locative suffix -nide is frequently omitted from NPs where the logical argument structure of the verb unambiguously determines that the NP will be interpreted as a location. Thus NP's in a locative relation to verbs such as 'go', 'take', 'hang', 'throw' etc in the above examples, are quite acceptable without case inflection.

6.1.7 -pagu VIA

The propositional enclitics -pagu and -pefi, indicating activity directed 'towards' or 'away from' the speaker, respectively, are examined in 6.2.2. -pagu additionally has a minor role as a local case marker, indicating that the NP to which it is attached represents 'a location passed through', or 'a pathway moved along'. This perlative usage of -pagu is demonstrated in the examples below.

6-55 depi-pagu ngeme -syarr -tye tyet
head-VIA 1sgHandsDtr-scrape-Past shirt
SU Plmp
I pulled my shirt off over my head.

6-56 mentyi-kanbi -pagu ngupung-genket ngekin masyapu
NgK throat -bamboo-VIA 1sgSlash -cut shit big
=windpipe SU Perf redup = large colon
I pulled its guts out through (a hole in) its windpipe.

6-57 old highway-pagu ngarrany -fi -pal
-VIA 1plexPokeDtr-Mp-return
SU Perf
We came home by the old highway.

6.2 Propositional Enclitics

This section looks at ten enclitics which in particular functions are 'propositional' in the sense defined at the beginning of this chapter.

6.2.1 -nimbi CAUSE

In 6.1.5 we saw that -nimbi as a 'source' marker conveys the notion that some event or entity was temporally prior to some other event. In 6-35, something was 'in the bushes' prior to 'jumping out of the bushes'. In 6-47, 'the audience clapping' was prior to 'his setting up the video'. The causal functions of -nimbi can be seen to be related to the source functions in terms of this notion, i.e. a causal event must be prior to the state or event that it instigates.

The adnominal use of causal -nimbi is demonstrated in the examples below.
6-58  
**dede wunggume-nimbi dim, dengini ngayim**  
place one -CAUS 3sgSit body 3sgF  
SU Pres PRO  
From sitting in the one place, her body has kind of  
ngini -yup-mem -ngide agumufi minbe yenim-lali  
KIND-stiff-3sgDo -3sgF tendon Neg 3sgGo -around  
SU PresIMPL SU Pres  
stiffened up on her... her tendons, she can't move about.

6-59  
**ep perrety-meny, ep tyagan-nimbi -nawa**  
GUESS die -3sgDo GUESS what -CAUS-INDEF  
SU Perf  
They say he's dead, whatever could it be from ?  
ep manguyawu-nimbi, ep gagu edewi-nimbi  
GUESS sorcery -CAUS GUESS animal fat -CAUS  
might've been from sorcery...might've been from kidney fat.

Where a noun given as the cause of some resultant state or activity is  
a higher animate, there exists a degree of overlap between the notional roles  
of 'causer' and 'agent'. -nimbi can be suffixed to NP's that are effectively the  
subjects of high-transitive verbs, and as such would perhaps be more  
typically marked in that role by the agentive suffix -ninggi (see 5.2.1). Green  
(1989:53) and Harvey (1987:210) also note the possibility of 'source' or 'cause'  
case marking on transitive subjects in Marrithiyel and Warray. There is no  
significant semantic difference between the pairs of sentences in the  
examples below.

6-60  
**a) ngityirr wurek, pigipigi-nimbi waddi -kurrkurr-tye**  
ground bad pig -CAUS 3plGo -dig -Past  
SU PImp redup  
The ground is rough, dug up by pigs.

**b) ngityirr wurek, pigipigi-ninggi waddi -kurrkurr-tye**  
ground bad pig -AGENT 3plGo -dig -Past  
SU PImp redup  
The ground is rough, dug up by pigs.

6-61  
**a) Billy -nimbi dangim-ngirrki-fi -me**  
-CAUS 3sgPoke -Idlex -Mp-hand  
SU Perf DO  
Billy gave us some (cartridges).

**b) Billy -ninggi dangim-ngirrki-fi -me**  
-AGENT 3sgPoke -Idlex -Mp-hand  
SU Perf DO  
Billy gave us some (cartridges).
An example of the predicative use of causal -nimbi was given in 6-34 above. Where -nimbi functions predicatively in attaching to verbs that are inflected for the irrealis modal category, the resultant clause of 'potential cause' is interpreted as the 'condition' (versus the 'consequent'), of a conditional proposition. This construction type is demonstrated in 6-62 and 6-63 below.

6-62  
\[
\text{mani } -\text{nimbi ya } -\text{ngi-fi } -\text{me,} \\
\text{money-CAUS 2sgPoke-1sg-Mp-hand} \\
\text{SU Irr DO}
\]
If you give me money,
\[
\text{peke ngim -bi -fayam}\text{\textsuperscript{4}-pe} \\
\text{tobacco 1sgLie-2sg-buy -Fut} \\
\text{SU Irr IO}
\]
I'll buy you tobacco.
(i.e. from you giving me money, I'll buy you tobacco)

6-63  
\[
\text{mudiga-werre } yaniyerri-nimbi, \text{ mirri wunggume yemengge,} \\
\text{car } -\text{ASSOC 2sgGo } -\text{CAUS sun one} \\
\text{2sgArrive} \\
\text{SU Irr} \\
\text{SU Irr}
\]
If you went by car, you'd get there in one day,
\[
\text{epe firr-ngityirr yani } -\text{lali } -\text{nimbi diwin erreke -nawa} \\
\text{but foot-ground 2sgGo-around-CAUS month how } -\text{INDEF} \\
\text{SU Irr} \\
\text{many}
\]
but, if you were to footwalk, it'd take ..who knows how many
\[
\text{yemengge, minbe mendi-wurrur} \\
\text{2sgArrive Neg close } -\text{UNSATIS} \\
\text{SU Irr}
\]
months to get there, it's really too far away!
(i.e. from going by car...... from going by foot......)

Past conditionals, being relatively certain of outcome, tend to lack the sense of 'potentiality', and are basically restricted to interpretation as counterfactual hypotheticals. Compare 6-62 above with 6-64 below.

6-64  
\[
\text{mani ya } -\text{ngi-fi } -\text{me } -\text{nimbi-tye, peke ngim } -\text{bi } -\text{fayam-tye} \\
\text{money } 2sgPoke-1sg-Mp-hand-CAUS -Past tobacco 1sgLie-2sg-buy-Past} \\
\text{SU Irr} \text{ DO} \\
\text{SU Irr} \text{ IO}
\]
If you'd given me money, I'd have bought you tobacco.
(i.e. from you having given me money, I'd have bought you tobacco)

\[\text{The verb root } -\text{fayam is probably a Kriol loan based on the English 'buy'em'. Elderly Ngan'giwumirri speakers use the verb nganganim-wawu-'pick up'in reference to collecting supplies from a store. If this is a loan verb root, it is unusual in its selection of the 'Lie' auxiliary, as all other loan verbs into Ngan'gityemerri are formed with the 'Say' auxiliary.}\]
Note that Ngan'gityemerri requires a sort of harmony of both modal and tense categories between the 'condition' and the 'consequent' of conditional constructions. As non-actual events, both require the irrealis mood, and they must be either both past tense (counterfactual) or both future tense (potential).

In these irrealis conditional structures the propositional use of -nimbi carries a strong implication of the notion of conjecture. This semantic correlation between 'conjecture' and 'non-actual cause' is evident in examples 6-62 and 6-63 above. This sense of conjecture or hypotheticality is even more evident in those conditional structures where either the 'condition' or the 'consequent' is not explicitly given. In 6-65 below, the consequent is unstated (but the implied consequent is supplied in the literal translation), and the causal proposition has the effect of a hypothetical suggestion.

6-65 toilet kinyi derrigidi-yerrmugu -nimbi-pe detyirri-ne
here want -2plHandsdl-CAUS -Fut piss -PURP
SU Irr SU
The toilet is here, should you (dl) want (it for) a piss.
(lit: The toilet is here. As a result of wanting it for a piss, (this is where you'd come.))

On the other hand, a small number of examples have been recorded which have -nimbi in utterance-initial position. Consider the examples below.

6-66 -nimbi tyawurru wani -pagu -pe wemengge-nin -pe
-CAUS today 3sgGo -HITH-Fut 3sgArrive -1plinc-Fut
SU Irr SU Irr IO
Perhaps he'll arrive here to us today
(lit:(as a result of X happening), he'll arrive here...)

6-67 -nimbi ngani-pe, -nimbi minmi
-CAUS 1sgGo-Fut -CAUS Neg
SU Irr
I might go, I might not.
(lit:(as a result of X happening), I'll go... (but as a result of Y happening), I won't.)

The conjectural sense of these examples arises from the omission of the 'condition' clause to which -nimbi is formally an enclitic. The speaker is not being specific about the events X and Y that might cause or instigate the 'consequent' events of his going or not going.
6.2.2 Directionals '-pefi' and '-pagu'

Section 6.1.7 describes the local case function of -pagu, glossed as 'VIA'. The main function of the enclitics -pefi and -pagu is a propositional one, indicating that some activity is performed 'towards' or 'away from' the speaker. This is exemplified in the directional senses implicit in the following examples. Note that because these enclitics have scope over the entire clausal proposition, they freely attach to either the verb or a 'local' NP. The bracketed enclitics in 6-68 and 6-69 should therefore be read as either/or.

6-68 a) kinyi(-pagu) wuddum-Ø -mi -wul (-pagu)
   here-HITH 3plShove-3sg-val-return-HITH
   SU Perf DO inc
   They brought him back here.
   b) wunu(-pefi) wuddum-Ø -mi -wul (-pefi)
   there -THITH 3plShove -3sg-val-return-THITH
   SU Perf DO inc
   They took him back there.

6-69 a) etye kinyi(-pagu) yara -fi -pal (-pagu)-pe
   when here-HITH 2sgPokeDtr-Mp-return-HITH-Fut
   SU Irr
   When are you coming home ?
   b) etye wunu(-pefi) yara -fi -pal (-pefi) -pe
   when there-THITH 2sgPokeDtr-Mp-return-THITH-Fut
   SU Irr
   When are you going home ?

The reference point with respect to which motion is marked as 'towards' or 'away' need not strictly be the physical location of the speaker, but can be a location or person with which/who the speaker aligns or identifies himself⁵. Thus in the example given below, the speaker (in Peppimenarti) employs -pagu 'HITHer' to describe the return of his daughter from Katherine to Darwin (roughly equidistant from Peppimenarti) where she will return to the care of relatives.

6-70 wara -fi -pal -pagu -pe tawun
   3sgPokeDtr-Mp-return-HITH-Fut Darwin
   SU Irr
   She's coming back to Darwin

---

⁵As one might expect of such a system these enclitics are widely exploited in Ngan'gityemerri discourse as flags for one's social and political affiliations.
Propositional -pagu is widely employed in requests and imperatives where the speaker is the goal of transfer verbs. As is evident in 6-71 a) to c) below, -pagu, having scope over the entire clause, is free to appear on either the verb or the object NP. As c) shows, in requests and imperatives where there is a logical or conventional association between the verb and the object, the verb will typically be omitted.

6-71  a) peke yudi -ngindi-fityi-pagu
     NgK tobacco 2sgShove-1sg -roll-HITH
     SU Irr IO
     Roll me a smoke!

     NgK b) peke -pagu yudi -ngindi-fityi
     tobacco-HITH 2sgShove-1sg -roll
     SU Irr IO
     Roll me a smoke!

     c) peke -pagu
     tobacco-HITH
     Give me/roll me a smoke!

6-72  mam -deti yimi -ngindi-pagu
     NgK more-SAME 2sgSay-1sg -HITH
     SU Irr IO
     Tell me again! (I couldn't hear you)

6-73  yana -ngiti-kuli -pagu
     2sgFeet-1sg -throw-HITH
     SU Irr IO
     Toss it here!

A specifically aspectual function of -pefi, as a verbal enclitic, rather than a propositional enclitic, is examined in 3.4.4.4.

6.2.3 -merrendi/-nana (K)  LEST, WARNing, PROHIBition, INABILITY

Historically, -merrendi is dimorphemic, consisting of the enclitic -merre, which in turn is encliticised by -yendi 'same' (see 6.2.5). In contemporary Ngan'giwumirri however, the rarity of the use of -merre in isolation of the 'same' enclitic, suggests that -merrendi has been essentially reanalysed as a simple form. In consequence I have chosen to treat -merrendi in the examples given here as a single enclitic without attempting to exemplify this dimorphemic constituency.

-merrendi/-nana(K) can attach to either an NP or a verb root. This freedom stems from its having scope predicatively over an entire clausal proposition, not merely its immediate lexical host. -merrendi/-nana(K) has
four related functions glossed here as 'LEST', 'WARNing', 'PROHIBition' and 'INABility'.

6.2.3.1 LEST
A -merrendi clause subordinate to a simple declarative clause indicates a potential adversive proposition.

6-74 *wa-wetimuy yenim-wurrsimuy, ngemi -palak-nana*
NgK *M -little 'un 3sgGo -afraid 1sgHands-drop -LEST*
little 'un SsgGo -afraid 1sgHands-drop -LEST
cl SU Pres SU Irr
The little boy is afraid, lest I drop him.

6.2.3.2 WARNING
Warnings are structured as imperative clauses, and a subordinate -merrendi clause. The clause subordinated by -merrendi/-nana (K) denotes a proposition that is bad and should be avoided. The implication is that by heeding the advice given in the imperative clause, the bad outcome can be avoided.

6-75 *minbe yarra -fi -gi `mi-tyat,*
Neg 2plPokeDtr-Mp-side-Val-place
SU Irr
Don't all sit on the (one) side (of the boat)
*ngumbudu -madi-fili -merrendi,*
1plincShove-chest -roll-LEST
SU Irr
lest we roll it over.

6-76 *minbe pulpulmuy yi -ngiti*
Neg humbug 2sgSit-lsg
SU Irr IO
Don't annoy me,
*syiri -ninggi ngu -nyi-ta -merrendi*
striker-INSTR 1sgSlash-2sg -hit-WARN
generic SU Irr DO
or I'll hit you with a stick !

6-77 *kuru gana -nin -garri-pat -nime-merrendi*
*rain 3sgFeet-1plinc-leg -catch-pl -WARN*
SU Irr DO DO
Before the wet season catches up with us,
*warmadi-pe ngumbu -wurki-dudu*
quick -Fut 1plincSlash-3dl -cut
SU Irr DO redup
we'll have to circumcise those two (boys) quickly.
6.2.3.3 PROHIBITION

Prohibitives are structured like negative imperatives, with, in addition, merrendi encliticised to the pre-verbal negative particle minbe/minde(K). Prohibitives differ from negative imperatives in two important ways. Firstly, where imperatives are issued on the authority of the speaker, prohibitives appeal to the authority of legal, social or ritual conventions. Compare 6-78 and 6-79.

6-78 minbe dendi- yumu-ne father
   Neg lie 2sgSay-3sg priest
   SU Irr IO
   Don't lie to the priest!
   (I'm telling you this)

6-79 minbe-merrendi dendi- yumu-ne father
   Neg -PROHIB lie 2sgSay-3sg priest
   SU Irr IO
   You shouldn't lie to the priest!
   (Everyone knows this)

Secondly, unlike imperatives, prohibitives can take first and third person subjects in addition to second person subjects.

6-80 kuru kinyi pub,
   liquid this
   generic
   This is a pub.
   awa-purrpurk minbe-merrendi girri -Ø kinyi,
   Hg -littl'uns Neg -PROHIB 3plSit-IMP here
   cl SU Irr
   Little kids aren't allowed in here.

6-81 minde-nana wiri -kukuduk kuri beer,
   NgK Neg -PROHIB 3sgSit-drink liquid
   SU Irr redup generic
   He's not allowed to drink beer.

6-81 nem wunu ngirrwat ngayi yenim,
   3sgM that namesake 1sg 3sgGo
   PRO PRO SU Pres
   minbe-merrendi ngarrene-ngirrkki-tyerrakul
   Neg -PROHIB 1dlexGo-1dlex -talk
   SU Irr IO
   He is my namesake, we're not allowed to talk to each other.
6.2.3.4 INABILITY

There are examples where the structural pattern of prohibitives is sometimes found to express inability without necessarily the implication of prohibition from some external source. As in English and many other languages, the distinction between these different senses of the deontic mode is not encoded morphologically.

6-84 ngayi wa-mirrisyarra-ngi
NgK 1sg M - blind -1sg
PRO cl DO
I'm blind,
minbe-nana mudiga kinyi ngemi -baty
Neg -INAB car this 1sgHands-take
SU Irr
I can't drive this car.

6-85 beer minbe-merrendi kinyi ngumu-wa
Neg -INAB here 1sgSnatch-pick
SU Irr up
I'm unable to get beers here,
tyandi -wurru closed wirribem store-ne
sunday-UNSATIS 3sgStand -PURP
SU Pres
because being Sunday, the store is closed.
(lit: it's closed for the purpose of being a store)

6-86 yerr-makarri freezer wunu minbe-merrendi girim-mirrmirr
Tr -bad that Neg -INABIL 3sgSit-rumble
cl SUPres
That freezer's no good, (the motor) can't/won't run.

6.2.4 -yirre CORRECT

-yirre attaches to NP's marking them as the correct entity, in contrast to some given, assumed or intended erroneous referent, i.e. 'It's not X, as given, but Y-yirre that is the correct entity'.

6-87 ngem -fi -ket were ngiminy-ne,
1sgMouth-Mp-cut brother 1sgSay -3sg
SU Perf =speak falsely SU Perf IO
I mistakenly called him 'brother',
epe yetyi-yirre ngumbumum-ne
but son -CORRECT 1dlincSay -3sg
SU Pres IO
but it's 'son' that you 'n me correctly call him.
It was something edible that he was going to shoot for us,

but no, he's gone and bagged a diving shag!

No, (he's not where you think he is) he's actually there in his camp.

-yendi has a range of meanings, transcending a single-word English translation. Given as 'SAME' in the interlinear gloss, -yendi is variously translated in specific examples as 'same', 'again', 'as well', 'still' etc.

-yendi indicates that an event is considered in some way to be a 'copy' or 'repetition' of some other event. Like 'same' in English, this notion of 'sameness' allows for two types of linkage between these two events. It can link two instances of a single thing at two points in time, in which case the glosses 'again' and 'same' are likely to be used.

Take me back to that same place again.

If the two events are points within the frame of a progressive unchanged state, then the gloss 'still' will be appropriate.

Where an event is viewed, not just as a copy of another single event, but as one of a series of 'same' events, then it is likely to be glossed as 'always'.

Whenever he gets drunk, he wanders around and abuses
everyone. He always behaves in that same kind of manner.

The second type of linkage between one event/entity and its 'copy', is where two separate event/entities at the same point in time are considered to be instances of the 'same' thing. These will be glossed as 'as well', 'also', 'more', 'same', etc.

6-93  ya lirrmem beying -ngi-perrety,
hey cold  3sgBash-1sg -cold
SU Pres DO
Hey, I'm feeling cold.

nem bengim-Ø - perrety-yendi
3sg  3sgBash-3sg -cold -SAME
PRO  SU Pres DO
And he's cold as well (in addition to me being cold).

6-94  peke mam-mendi-pagu
tobacco  more-SAME-HITH
Give me some more of that same tobacco ?

6-95  dede ye yi pey-endi wibem, detyeri-werre ngaganim
camp other in -SAME 3sgLie ear -ASSOC 1sg Go
place  SU Pres
I know another place that's the same.
(an equally good fishing spot in the same vicinity)

6-96  minb-endi ya -ngi-tyerr -pu, minbe-pagu yumu-ngiti
Neg  -SAME 2sgPoke-1sg-mouth-ask Neg  -HITH 2sgSay-1sg
SU Irr  DO
SU Irr  IO
Don't ask me more of the same questions. Don't question my
intentions. Just take my word for it !

Of all the enclitics discussed in this section, -yendi stands apart in
having two features that are more suggestive of the status of suffix than of
enclitic. These features, the ability to carry secondary stress marking, and the
tendency in certain environments to undergo phonological assimilation
and reduction, are discussed below.

-yendi only retains its full form following roots that are stop final, as
in 6-93 above.

Following roots that are nasal final, the initial semivowel of -yendi
assimilates to both the place and manner of that nasal, as in 6-94 above.
Where -yendi attaches to vowel-final roots, the resultant -V#yendi sequence that lies across the morpheme boundary is subject to reduction. Either ye is elided and the root final V is suffixed by -ndi, or Vy is elided and the truncated root is suffixed by -endi. Put another way, the initial semivowel /y/ and one of the two vowels will be elided. The choice of which vowel is retained is determined by stress placement. Recall that, on nominals, primary word stress falls on the initial syllable and secondary stress on the third syllable of words that have more than three syllables. So where -yendi suffixes disyllabic roots, secondary stress thus falls on the first syllable of -yendi, and it is this vowel that is retained.

However where -yendi suffixes trisyllabic roots, secondary stress falls not on -yendi but rather on the third syllable of the root, and it is this root final vowel that is retained, taking the -ndi allomorph as a suffix.

-yendi has not been recorded suffixed to nominal open monosyllables.

Given the pattern of stress placement on verbs (see 2.5.3), the attachment of -yendi to vowel-final verb roots will always result in its reduction to -ndi, as in the example below.

The allomorphy of -yendi can be accounted for by the following two rules.

1) Initial y is elided after non-stops, leaving a VV sequence.
2) Whichever V secondary word stress falls on is retained, the other is elided.
From the examples in 6-97 and 6-98 it is evident that the phonological processes at work here are ordered in the following way.

\[
\text{suffixation} > \text{stress placement} > \text{elision}
\]
That -yendi attaches to its host prior to stress placement conflicts with the general behaviour of class and case marking enclitics noted elsewhere. It is on the basis of this factor, together with the propensity to undergo elision/reduction, that -yendi can be seen to have the status of suffix rather than enclitic.

6.2.6 -gumu/gimi(K) SEMBLative
Glossed as SEMBL, the enclitic -gumu indicates that something 'resembles' the NP to which it is attached. As is evident in examples 6-100 to 6-102, -gumu typically co-occurs with the proclitic ngini-/ngani-(K) 'KIND' (discussed in 6.2.7 below).

6-100 knife-pagu ngini-kinyi-gumu yumu -ngiti-wa -pe wagarri
-HITH KIND-this-SEMBL 2sgSnatch-1sg -pick-Fut two
SU Irr IO up
Get me two knives like this kind!

6-101 kuderri bengin -derri-lit ngani-bafun-gimi
NgK billabong 3sgBash-back -cover KIND-dust -SEMBL SU Perf
The billabong was covered (in a film of something) like a kind of dust.

6-102 detyeny wulek, yudupun-fityi ngani-musyulng-gimi,
NgK tongue bad 2sgShove-roll KIND-swag -SEMBL SU Pres
Your tongue's badly (positioned), you've rolled it up like it was a kind of swag!
(author being chastised for over-retroflexed articulation)

The role of -gumu-/gimi-(K) as a verbal enclitic is examined in 3.4.4.2.

6.2.7 ngini-/ngani-(K) KIND
Of the class of clitics that have nominal, verbal and propositional functions, ngini- stands apart in being the only proclitic. In fact, other than the noun class markers (cf. 5.5) and relative location ngan- (cf. 5.3.4), ngini- is the only productive proclitic in Ngan'gityemerri. This is of interest
because, like the noun class markers, ngini- is also concerned with classification.

Ngini- can be attached to NP's, (where, as in 6-100 to 6-102 above, it frequently co-occurs with the SEMBLative enclitic) indicating that some entity is 'of the same kind' as another. The controlling factors as to what constitutes 'KIND', are typically context dependent; for example, in 6-100 above the speaker is requesting two knives with a thin curved blade, unserrated and about ten inches long, like the one he is holding. He is unconcerned whether they be the same brand or colour etc, rather his concern is that they are the same kind of knife from a functional point of view, i.e. that they are 'skinning' knives.

However, ngini- also interacts with noun class generics so that 'KIND' is understood to refer specifically to species within that designated genus.

6-103 yerr-ngini-kinyi minbe derrigidi-ngerim
   Tr -KIND-this Neg want -1sgHands
   cl SU Pres
I don't like this kind of (tree class member) tobacco,
warwambi wayim -waty -ngidde
   quickly 3sgHeat-consume-1sg
   SU Pres IMPL
It burns up too quickly on me.

6-104 gagu a -ngini -kide derrigidi-yerim ?
   animal A-KIND-which want -2sgHands
   generic cl SU Pres
Which kind of meat (beef/pork/fish) do you want ?

Compare 6-104 above with 6-105 below, which, in the absence of ngini-, simply enquires about 'which ?' of a number of entities.

6-105 gagu a -kide derrigidi-yerim ?
   animal A-which want -2sgHands
   generic cl SU Pres
Which of these cuts/pieces of meat do you want ?

As a proclitic to verbs ngini- indicates that an activity or event is of the same general kind as another. The concern here is in comparing kinds of action with regard to such details as 'how the limbs are moved' and 'the position of the hands' etc. These details of execution are the aspects of an activity in terms of which they can be viewed as 'one of a kind'. Predictably then, the attachment of ngini- to verbs is most frequently encountered in
speech acts that are intended as instructions, as in 6-106, or which recount details of execution, as in 6-107.

6-106 deme kinyi yirrmi-ngini ngani-ngeben-dada
NgK way this 2plDo -Fut KIND-1sgBash-hit
SU Irr SU Pres redup
Do it this way, in the kind of way that I do it!

6-107 syiri yawul ngumu -wa, ngariny-Ø -pawal ngini-yiminy,
Hhw spear 1sgSnatch-pick 1sgPoke-3sg-spear KIND-2sgDo
SU Perf up SU Perf DO SU Perf
I picked up a spear and (holding it in the hand) poked him in just the same kind of way as you did.
minbe-tye ngana -ne-kuli, ngeriny-tyerr, ngariny-pawal dege,
Neg -Past 1sgFeet-3sg-throw1sgHands-stop1sgPoke-spear guts
SU Pimp IO SU Perf SU Perf
I didn't throw it at him, I restrained myself, and just poked him in the guts.

6.2.8 -napa JUST/UNTIL

The propositional enclitic -napa attaches to both NP's and verbs, as a type of 'limiting' emphatic. Attached to NP's it designates them as 'X and only X', and is glossed as JUST.

6-108 yenggi wayim -waty -yenim, bafun-napa wibem,
NgK fire 3sgHeat-consume-3sgGo ash -JUST 3sgLie
SU Perf SU Perf SU Pres
The fire has consumed (the whole log), it's nothing but ash.

6-109 nyinyi-napa -deti felfi derrigidi-ngeriny -nyi
NgK 2sg -JUST-SAME alone want -1sgHands-2sg
PRO SU Pres DO
It's still only you that I love.

6-110 egeningge-nimbi yubu -da -pe, egeningge-napa derrigidi-ngerim
goose -CAUS 2sgBash-hit-Fut goose -JUST want -1sgHands
SU Irr SU Pres
If you happen to shoot some geese, then it's just a goose that I want (rather than money, in return for giving you the cartridges).

Attached to verbs -napa signals 'a limit reached', i.e. it has the essentially aspectual function of marking the 'perfect of result' (in the sense

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6Ngan'gityemerri speakers do not make these kinds of romantic vows. This example from a narrative was given in parody of a hen-pecked whitefella (not the author) who is obliged to say this to his wife on regular occasions.
of Comrie 1976:56-7) where a proposition is presented as the resultant state of past activity. In this capacity -napa is glossed as UNTIL.

6-111 yedi -wurrkama-tye palak-meny-napa
3sgGo-work -Past tired -3sgDo -UNTIL
SU PImp SU Perf
He worked until he was tired.

6-112 ngariny-syi -bang mawuny-ninggi, e wupun-tyen-napa
1sgPoke-nose-pierce ironwood-INSTR and 3sgSlash-dry-UNTIL
SU Perf SU Perf
I'd pierced my nose with an ironwood lance. (It has been healing slowly until now) it has dried right out.

6.2.9 -nawa INSTEAD

The enclitic -nawa attaches to NP's identifying that entity/activity 'instead of' or 'in preference to' some other thing (which may be unstated).

6-113 yedi -nawa wannim-fifi falmi minmi
man-INSTEAD 3pl Go -blow woman Neg
SU Pres
It's men who blow didjeridus, women don't.

6-114 yerr-mentyi minbe ngaganim-dada, walamarra-nawa
Tr -throat Neg 1sg Go -sing women's -INSTEAD
cl =song SU Pres dance style
I don't sing songs, but I do 'walamarra' instead.

6-115 syiri damuy yerim -baty ?, minbe-yawurr, meny-nin
Hhw eye 2sgHands-hold Neg-tree/thing 3sgSay-1dlinc
gen=cartridge SU Perf IO
"Got any cartridges ?", "No, nothing" he told us.
wun -nawa wulmen-nide yanneyerri,
there-INSTEAD oldman -LOC 2sg Go*
SU Irr
"but go over there (instead of here) to the old man,
nyin -nawa demim -baty,
ANA-INSTEAD 3sgHands-hold
SU Pres
he (instead of me) has got some".

The 'indefinite' sense of -nawa is treated in the discussion of interrogatives in 9.3.3.
6.2.10 -wurru UNSATISfactory

-wurru is an enclitic that has the propositional function of indicating that the speaker finds either the proposition as a whole, or a particular element of the proposition, to be unsatisfactory. It expresses a negative evaluation of a proposition, or some entity's role in a proposition, because it impacts on the speaker in some disadvantageous way.

Attached to adjectives and expressions of quantity -wurru apportions the unsatisfactoriness of the proposition to the excess of that attribute or quantity.

6-116 funggulu ngamban-nime,
honey 1dlinc Go -pl
SU Irr SU

Let's go get honey.

kinyi-pefi ngambani-madi-pap -nime-pe madiket-wurru
this-THITH 1dlincGo -chest-climb-pl -Fut hungry-UNSATIS
SU Irr SU

Let's climb up this way, I'm too hungry !

6-117 tea kinyi wurek-wurru
this bad -UNSATIS

This tea's too weak !

6-118 firr -ngityirr-nimbi yani -lali,
foot-ground -CAUS 2sgGo-around
SU Irr

If you were to go on foot,
diwin erreke-nawa yemengge, minbe mendi-wurru
moon how-INDEF 2sgArrive Neg close -UNSATIS
SU Irr

it'd take you months to get there...it's too far !

This notion of excessive quantity can also be seen to operate in negated expressions where -wurru signals the speaker's feeling that the amount is insufficient.

6-119 minbe-mi-wurru ngirim
Neg -Pf -UNSATIS 1sgSit
cl SU Pres

I haven't enough food (to spare you any).

6-120 gagu minmi-wurru a-minbadi money
animal Neg -UNSATIS A-big
generic cl

(I don't have) enough money, it's too expensive !
Note that -wurru can be used in a particular way which is consistent with the evaluation of 'excessive quantity', but which is not presented as an 'unsatisfactory' proposition. Consider 6-121 below, where the speaker is extending a polite invitation to someone to feel free to contravene normal conventions. Effectively the speaker is saying 'Please sit here talking for (what would otherwise be considered as) too long a time'.

6-121 fenggiderri-wurru yi tyerrakul-pe kinyi
long time -UNSATIS 2sgSit-talk -Fut here
SU Irr
(Please) stay here talking as long as you like.

The 'unsatisfactory' evaluation of a proposition (or, more especially, an individual's role in a proposition), that is convey by -wurru, can interact with the semantics of the verb and the general context of the discourse in a way that leads to the interpretation of the speech act as an expression of compassion or an expression of criticism. For instance, a -wurru marked NP that is portrayed as the victim of some verb of adverse effect, as in 6-122, is understood to be the object of the speaker's compassion. On the other hand, a -wurru marked NP that is portrayed as the perpetrator of some adverse proposition (or even potentially adverse proposition), is understood to be the object of the speaker's criticism, as in 6-123.

6-122 minbe-wurru kene yannunggu-madiwirri
Neg -UNSATIS who 2plGo dl -play
SU Pres SU
You (poor thing) have no-one to play with.
ngayi-nyine ngambani-madiwirri-pe
1sg -FOC 1dlinc Go -play -Fut
PRO SU Irr
I'll play with you from now on.

6-123 nyinyi-wurru medicine minde-tye yemi -baty
2sg -UNSATIS Neg -Past 2sgHands-hold
PRO SU Irr
You (are to blame because you) neglected to take your medicine with you !!!
Chapter 7

Particles

Particles differ from enclitics in being independent freeform phonological words, and generally occurring clause-initially. Otherwise they share broadly similar semantic functions to the enclitics discussed in the preceding chapter. Wilkins (1989:347) has drawn attention to the 'significant degree of agreement between the stocks of meanings encoded through the particle/clitic grouping' in Australian languages generally. Most of the particles discussed here have scope over an entire clausal proposition. The three forms examined in 7.10 have the function of conjoining nouns and clauses under certain, fairly limited, conditions. Particles cannot take any form of inflection. 7.11 lists the class of interjections, which differ from particles in constituting complete utterances on their own.

7.1 Tyepe  JUST

Tyepe indicates that some proposition is the only thing within the context that can be done. Nothing else can be done, simply because no other alternatives exist.

7-1 tyepe dede kinyi dinyirri-mi-yubu,
JUST camp this 3sgSee -Val-good
SU Perf
(Ancestral Pelican, going into labour whilst travelling) only
just had time to observe that this was a suitable place.
kine ngani-wap, ngi -palak-pe amurru, meny,
this 1sgGo-sit 1sgSit-dro p-Fut A-egg 3sgSay
place SU Irr SU Irr cl SU Perf
"I'll camp here and lay my egg", she said.

7-2 tyepe nganniny-fili firr -ngityirr-nyine
JUST 1plex Go -wander foot-ground-FOC
SU Perf
(Being unable to restart the car) we just set off on foot then.

7-3 minbe-pagu yumu-ngiti tyagan-ne
Neg -HITH 2sgSay-1sg what -PURP
SU Irr
Don't question my intentions,
tyepe ngan'gi ngayi yumu -ngi-me -wa,
JUST word 1sg 2sgSnatch-1sg -hand-pick
PRO SU Irr DO up
just take my word for it.
7.2. Ngunu HOW ABOUT IT?

The particle *ngunu* forms a question that asks 'how about it?' with respect to some given proposition. It’s characteristic use is in polite speech, seeking information. The usage of *ngunu* as an interjection is noted in 7.11.

7-4 *ngunu* ready-yurrmugu-nyine

*HOW 2plDo dl -FOC ABOUT SU Irr SU*

'How about it?, are you two ready to go now?'

7-5 watypela yirrini -tye tyawurru, dam -tyerr -pu

*whitefella 3sg Go*-Past today 3sgPoke-mouth-ask SU PImp SU Perf*

The whitefella (physiotherapist) came here today and asked her,

de-ngini nyinyi *ngunu*, mumba yaganim-lal -endi,

*Bp-body 2sg HOW walk 2sg Go -around-SAME cl PRO ABOUT SU Perf*

"Well how's your body then?, are you moving around again?".

7.3 Wetimbi FINE

*Wetimbi* indicates that something is agreeable, or meets with your expectations or approval. It typically prefaces a positive response to a query, and can be translated as 'OK', 'fine', 'sure thing, 'no problem' etc. (see also 7.11).

7-6 *yubu* yirim ?, wetimbi *yubu* ngirim,

*good 2sgSit FINE good 1sgSit SU Perf SU Pres*

'Are you OK? ', 'Sure, I'm fine'

7-7 *ganbi* kinyi ngawam-pe, meny -ne, wetimbi yawam-pe,

*didjeridu this 1sgTake -Fut 3sgSay-3sgM FINE 2sgTake-Fut SU Irr SU Perf IO SU Irr*

'Can I take this didjeridu (onto the plane?)', he asked him.

'Sure, you can take it on'.

*darany -ngirrki-fi -pal, yu wetimbi ngambawam-pe*

*3sgPokeDtr-1dlex -Mp-return yes FINE 1dlinC Take -Fut SU Perf IO SU Irr*

he came back to us (and reassured us) 'Yeah there's no problem, we can take it on'.

7-8 *ulgumen* ngayi wetimbi ngiminy-nge

*old woman 1sg FINE 1sgSay -3sgF PRO SU Perf IO*

I've cleared it with my wife. (She's approved of my going on the trip)
7.4 Nginimem ALREADY

Nginimem indicates that some stative proposition already holds true. It is frequently used in expressions that draw someone’s attention to something that they seem not to be aware of.

7-9 tea ngingimem yerr-biny-nyine
\(\text{ALREADY Tr -ripe -FOC}\)
c

The tea’s already brewed.

7-10 gagu ambirr-endi ngudum-bul,
animal before -SAME 1sgShove-cook
gen. SU Perf

I’ve just cooked the meat,

ep ngingimem lirrmem-nyine
\(\text{BUT ALREADY cold -FOC}\)

but it’s already cold.

See also 7-12 below.

7.5 Ninggi DESPITE

The enclitic -ninggi is discussed in 6.1.1 and 6.1.2 as a case inflection to NP’s in agentive and instrumental roles. The homophonous form examined in this section is a freeform particle which occurs in clause-initial position and is quite unrelated to the case enclitic.

Ninggi designates the clause over which it has scope, as a proposition from which one could make logical assumptions, assumptions that are then contradicted in the following clause. This could usefully be explicated as: 'Even though proposition X would lead you to assume proposition Y, in fact, illogically, proposition Z is the case'. Proposition Y, as a logical assumption, would not normally be given. Ninggi typically prefaces proposition X, as in the examples below.

7-12 ninggi tyawuru dam -fi -sul, ep ngingimem bulbulfi
\(\text{DESPITE now 3sgPoke-Mp-arise BUT ALREADY hot}\)

SU Perf

Even though (the sun) has only just now arisen, it's already hot.

7-13 ninggi money yariny -ngi-fi -me, minbe ngganim,
\(\text{DESPITE 2sgPoke-1sg-Mp-hand Neg 1sg Go}\)

SU Perf DO SU Pres

Even though you've given me the money (to enable me to go), I’m not going.
Where proposition X has been clearly contextually established, it too can be omitted, leaving ninggi simply prefaced to proposition Z, as in 7-14.

7-14  ninggi  ngambani-pe  
**DESPITE**  Idlinc Go-Fut  
SU  Irr  
Despite (all the objections you've raised) you and me are still going to go.

7.6 Gumungini/Gimingini (K)  **SUPPOSE**

Gumungini conveys the speaker's assertion that the clausal proposition is 'supposed to happen', attributing the source of this expectation to some higher external (but generally unidentified) authority.

7-15  gumungini  ngambani-pe  meeting  
**SUPPOSE**  Idlinc Go-Fut  
SU  Irr  
You 'n me are supposed to go to this meeting.

Gumungini is also frequently used where the authority behind a proposition stems only from the speaker him/herself, but the speaker attributes the source to some ill-defined authority to make their case more convincing.

7-16  gumungini  kuru wagarrri  yani-ngiti-kurr-tye  
**SUPPOSE**  liquid two  2sg Go-1sg-pick-Past  
generic  SU  Irr  IO  up  
You were supposed to get me two (cartons) of beer !

7-17  wurruke, gumungini  apma  yirrigu  
3dl  **SUPPOSE**  quiet!  2nsSit dl  
PRO  SU  Irr  SU  
You two !, you're supposed to be quiet !

7.7 Tyamennapa  **DISMISSIVE**

Tyamennapa is (at least historically) dimorphemic, -napa being the JUST enclitic discussed in 6.2.8. However tyamen never occurs as a freeform and tyamennapa appears to be synchronically treated as an unsegmentable unit. As the particle is tyamennapa (not tyamen), it does not therefore violate the requirement that members of the wordclass 'particle' do not bear productive inflectional enclitics.

In saying tyamennapa a speaker downplays the significance of what he is saying, admitting that it is unimportant and unlikely to arouse the addressee's interest.
7-18 ....yudum-ngi-karrbu kinyi, nyine nga'ngi tyamennapa
2sgShove-1sg-alight here FOC story DISMISS
SU Perf DO
....then you dropped me off here. That's my story then.

gagu ngudunu-wutylit-tye-nganggidi tyamennapa
animal 1dlincShove-pour-Past-1dlincGo DISMISS
gen. SU Plmp redup SU Plmp
We were just throwing our money away (by playing those
sideshow alley games).

tyamennapa perrety-meny
DISMIS S die -3sgDo
SU Perf
He just died, that's all (there are no suspicious circumstances).

Note that tyamennapa is also used as an interjection meaning 'it's
nothing', 'forget it', 'don't bother about it' (see 7.11).

7.8 Epe BUT
Epe prefices a proposition suggesting that it be considered in contrast
to some immediately preceding proposition.

palamuru nuwurr ngumu -wa -pe, epe ganbi kide,
clapsticks briefly 1sgSnatch-pick-Fut BUT didjeridu where
SU Irr up
I'll just get my clapsticks, but where's (your) didjeridu ?

peyi intyat-yendi wembem nginimem, epe warrifi-mirri,
in inside-SAME house ALREADY BUT down -EMPH
place
(The carpark) is still inside the same building, but it's down
in the basement.

gagu wirritywirrity dede kinyi nayin-nide yenim e-wedi,
animal lorikeet country this 1dlinc-LOC 3sg Go A-small
gen. PRO SU Pres cl
The lorikeets here in our country are small,
epe dede nyinyi nginyirri, minbe e-wedi yenim,
BUT country 2sg 1sg See Neg A-small 3sg Go
PRO SU Perf cl SU Pres
but (the lorikeets) I saw in your country (Melbourne Zoo)
are huge (lit: aren't small).
ep dede kide -nimbi -nawa
GUESS country where-SOURCE-INDEF
I wonder what country they come from ?
7.9 Ep GUESS

Ep prefaces a clause to indicate that the speaker acknowledges that he is guessing. It could be explicated as: 'What I'm saying is based on the information I have, but I don't know for sure that it is true'.

7-24 awa-cooky minbe-fela1, ep miyi-nyine-ne
Hg - Neg -fellow GUESS food-FOC -SUPP
cl = no-one
No hostesses, it might be dinnertime.
(Said on observing the absence of hostesses in the plane cabin, and assuming that therefore they might be preparing dinner in the galley)

7-25 ep kine Darwin, ngiminy-ne, ep -ne, meny-ngiti
GUESS this 1sgSay -3sgM GUESS-SUPP 3sgSay-1sg
place SU Perf IO SU Perf IO
'This place might be Darwin', I said to him. 'Could be' he told me.
(Said on feeling the plane beginning to lose altitude)

As one might predict from the explication given above, ep is widely used in 'hearsay' constructions, where the speaker attributes the source of the proposition to quoted information and is him/herself unable to personally vouch for its veracity.

7-26 ep wur-NLC yenim-pagu tyawurru
GUESS F- 3sgGo-HITH now
cl SU Pres
They say the Northern Land Council woman is on her way out here.

Ep can also be used in this kind of 'hearsay' construction when someone wants to enquire about something or make a suggestion, without portraying themself as the direct source of the quoted proposition.

7-27 ep palada deminy -nyi-tip
GUESS venereal 3sgHands-2sg-grab
disease SU Perf DO
They say you've got a dose of the clap?

---

1 In the absence of a gender-unspecified human generic in Ngan'gityemeri, fela (from English 'fellow,' via Kriol) is now widely used. cf. minbe-mipurr 'no men', minbe-falmi 'no women'.
7.10 ninde, e, a CONNECTORS

There is no widespread marking of nominal or clausal conjunction in Ngan'gityemerri, though there are three forms, ninde 'and then', e 'and' and a 'finally', that are available for this purpose. Conjoined nominals are usually listed simply in juxtaposition. Consider the list of animal names, repeated here from the text extract given as Text 1 in appendix C.

7-28 amatyi, gagu wirritywirrity, awanggi, karrwakkarrwak, kangaroo animal lorikeet crow kookaburra
generic
(There were) kangaroos, lorikeets, crows, kookaburras, gagu mentyinimba, budenggu, afiwurr, gagu lion, animal diving shag cormorant sp. cormorant sp. animal
generic generic
diving shags, two species of cormorant, lions, tiger, elephant, gagu abatymirri, eperrperr, gagu awirrfirr, animal black Burdekin animal whistle
generic duck duck generic duck
tigers, elephants, black ducks, Burdekin ducks, whistle ducks, ninde aditymadi, gagu adityibi, emen'giny, gagu pultyerrk, and pygmy animal bandicoot goanna animal wedgetail
then goose generic generic eagle
and then there was pygmy geese, bandicoots, goannas, eagles,

Two devices are employed here to keep track of the fact that this is a list of connected names. Firstly, note that the 'animal' generic gagu is included with every second or third listed noun. Secondly, ninde 'and then' prefaces that part of the list that constitutes a second breathgroup, i.e. when the speaker had to stop and take a breath because the list was so long, he began again with ninde. Ninde thus indicates that what follows is to be understood as a continuation of what preceded. Given the comparative rarity of such lengthy strings of conjoined elements, there are few tokens of ninde in my data.

E can be used to conjoin either NP's or clauses, as in 7-29 and 7-30, though like ninde, few examples are found in either text or conversation. The rare use and typically slow delivery of e suggests that it is in fact as much a hesitation device as a connector.

7-29 teacher wurruke Glen e Tony
3dl and
PRO
Those two teachers, Glen and Tony.
The third connector, a, has a narrative function, connecting a punctual activity to a preceding progressive activity in a particular way. Where a clause describing activity that took a long period of time (durative) is followed by a clause describing activity that was momentary (punctual), then the latter clause can be prefaced by a. In an example like, 'we were travelling...........a, we arrived', the sense of a could be explicated as: 'I'm not going to bore you with all the details, but you should understand that the travelling took a long time, then finally we were there'.

Clauses connected in this way have a very distinctive intonation contour. The final vowel of the durative verb is exaggeratedly prolonged, with gradually decreasing pitch (iconic of duration). Then the connector a has short sharply rising pitch (iconic of punctuality). The translation of 7-31 below, attempts to represent this pitch contour pattern.

7-31  ngarrintyirri-fili, a bitumen nganniny-mentyi-tyerr
1plex Go* -wander finally 1plex Go -neck -stop
SU Plmp  SU Perf =turn off
We kept travelling...........finally we hit the bitumen.

7-32 musyulng-nyine nginnyirrini-kerrety-tye, ganbi-mbirri
swag -FOC 1plex See -grasp -Past didjeridu-FIRST
SU Plmp
We were watching for our swags (to emerge on the airport baggage conveyor belt), I saw that the didjeridu was coming up first, so I picked it up.
a handbag ngayi gaganim, tap ngumu-wa
finally 1sg 3sg Go ONO 1sgSnatch-pick
PRO SU Pres SU Perf up
... then finally my suitcase came, and I picked it up.

3- Darwin watch-house nginni -pefi -tye three month,
1plexSit-DUR-Past
SU Plmp
We sat around in Darwin watch-house for three months,
then finally they sent us (prisoners) off to Alice Springs.

7.11 Interjections

Interjections differ from particles in their capacity to constitute utterances on their own. They typically express a reaction to an event, either linguistic or extra-linguistic (cf. Laughren 1982:132). Several of the particles discussed in 7.1 to 7.10 function also as interjections. These include ngunu (cf. 7.2), wetimbi (cf. 7.3), and tyamennapa (cf. 7.7).

<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>yu</td>
<td>yes</td>
</tr>
<tr>
<td>yi</td>
<td>oh yeah (mild interest or tentative agreement)</td>
</tr>
<tr>
<td>(a)ya</td>
<td>hey !</td>
</tr>
<tr>
<td>minmi</td>
<td>no</td>
</tr>
<tr>
<td>ma</td>
<td>give it here then</td>
</tr>
<tr>
<td>(i)ngga</td>
<td>take it (often a response to ma)</td>
</tr>
<tr>
<td>ba</td>
<td>let's get started !</td>
</tr>
<tr>
<td>ba</td>
<td>..no no I mean... (correcting a slip of the tongue - differs from ba 'let's get started' in being ingressive)</td>
</tr>
<tr>
<td>wakay</td>
<td>finished !</td>
</tr>
<tr>
<td>yakay</td>
<td>oh shit!, ouch!, lookout!</td>
</tr>
<tr>
<td>yakarra</td>
<td>isn't that terrible!, oh no!</td>
</tr>
<tr>
<td>wetimbi</td>
<td>fine !, no worries !, OK !, 'good one !'</td>
</tr>
<tr>
<td>tyamennapa</td>
<td>'it's nothing !' 'not worth worrying about !'</td>
</tr>
<tr>
<td>ngunu</td>
<td>well, how about it?</td>
</tr>
</tbody>
</table>
Chapter 8

Space, Time and Number

This chapter examines the way in which spatial deixis, temporal deixis and quantification are expressed in Ngan'gityemerri.

8.1 Space

8.1.1 Demonstratives

There is a primary opposition between the two spatial demonstratives;

\[
\begin{align*}
8-1 & \text{ kinyi} & - & \text{ here / this} \\
\text{wunu/wuni (K)} & - & \text{ there / that}
\end{align*}
\]

which place some entity as either close, or distant, with respect to the speaker. Kinyi and wunu can either stand as independent nominals, as in 8-2 and 8-3, or modify head nominals, as in 8-4 and 8-5.

\[
\begin{align*}
8-2 & \text{ yudu} & - & \text{-Ø-mi-wul} & - & \text{pagu-pe kinyi} \\
& 2\text{sgShove-3sg-Val-return-HITH-Fut} & \text{here} \\
& \text{SU Irr DO} \\
& \text{Bring her back here!}
\end{align*}
\]

\[
\begin{align*}
8-3 & \text{ ngambani-pe wunu} \\
& 1\text{dlincGo-Fut there} \\
& \text{SU Irr} \\
& \text{Let's go over there.}
\end{align*}
\]

\[
\begin{align*}
8-4 & \text{ nem kinyi dangim-ngi-fi -me} \\
& 3\text{sg this 3sgPoke-1sg-Mp-hand} \\
& \text{PRO SU Perf DO} \\
& \text{This man/the man here gave it to me.}
\end{align*}
\]

\[
\begin{align*}
8-5 & \text{ mipurr wunu kene girribem} \\
& \text{man that who 3sgStand} \\
& \text{SU Pres} \\
& \text{Who is that man/the man over there.}
\end{align*}
\]

In addition to these two primary terms, the spatial deixis system is comprised of a third, though statistically much rarer, term werrfe/yife(K), denoting mid-distance. Werrfe indicates a position neither close to, nor very distant from, the speaker. Like the two primary deictics, it is concerned simply with relative position, not visibility or any other criteria. Werrfe is most frequently employed in opposition to kinyi, in distinguishing between
two positions, neither of which is really distant from the speaker. This usage is demonstrated in 8-6.

8-6  
{werrfe yirrim -pagu, ngayi kinyi ngirrim -pe} 
mid 2sgStand-HITH 1sg here 1sgStand-Fut 
distant SU Irr  PRO  SU Irr 
You stand just there, and I'll stand here. 
(leaving only a small space between us for fleeing wallabies to run through)

Although kinyi and wunu can refer to general location with respect to the speaker (as in 8-2 and 8-3 above), there is in Ngan'giwumirri an additional set of terms, kine and wune, that refer to this/that specific place, as opposed to other possible referents such as people, objects etc. They refer to definable, and usually named, places, and are most frequently employed in naming country.

8-7  
dede  
kine atyityulak girim, ngiminy-bi 
country this Australian 3sgSit 1sgSay -2sg 
place pratincole SU Pres SU Perf IO 
'This place here is the Aust. pratincole dreaming', I told you.

8-8  
wune ya -fi -tyat -Ø 
that 2sgPoke-Mp-place-IMP 
place SU Irr 
Set it down in that place!

Kinyi, werrfe and wunu can fill the full range of syntactic and morphological structural possibilities that are available to all modifying nominals. They can, for instance, bear noun class proclitics and nominal suffixes, as shown with kinyi in 8-9 and 8-10.

8-9  
{yerr-kinyi gagu} 
money mabuk-wurru 
Tr -this animal lots -UNSAT 
cl gen. 
This one's too expensive!

8-10  
kin -nimbi kide -pefi ngambani-pe 
here-SOURCE where-THITH 1dlincGo -Fut 
SU Irr 
Which way do we go from here?

8.1.2 Nearside/Farside
The three spatial deictics kinyi, wunu and werrfe also take the enclitic -ninggi, which we have seen in 6.1.1 and 6.1.2 to mark agentive and
instrumental case roles on other nominals. The resultant terms mark the location of something, not as proximant or distant with repect to the speaker, but as on the nearside or farside of some other referent with respect to the speaker. Thus something that is 'kin-ninggi Darwin', may be quite distant from the speaker, but on the speaker's side of Darwin.

8-11  minbe ngatypirr Amungal-nimbi wun-ninggi nganniny-du
Neg distant Adelaide -SOURCE there-INSTR 1plexGo-sleep
River SU Perf
We camped at a place a little the other side of Adelaide River.

8-12 ngambara -mentyi-gerrgirr-nide -pe, wamanggal nyin
1plincPokeDtr-neck -cut -3sgM-Fut wallaby ANA
SU Irr IMPL
Let's circle around on that wallaby,
ngarrnguweri-nyine wiri -pe, nyinyi werrfe-ninggi,
middle -FOC 3sgSit-Fut 2sg mid -INSTR
SU Irr PRO distant
so he'll be in the middle. You (go) just that side of him,
ngayi kin -ninggi ngana -gulirr-pe,
1sg here-INSTR 1sgFeet-circle-Fut
PRO SU Irr
I’ll circle around this side of him.

8.1.3. Nearside/Farside of 'Bodyparts'
To provide further specification of this 'other referent' with respect to which location is marked, the three bodyparts madi 'chest', data 'shoulder', and dirr 'teeth', can be prefixed to kin-ninggi and wun-ninggi. These bodyparts play a broadly classificatory role, portraying the referent as an exemplar of that bodypart, with respect to the landscape as a whole. The extension of bodypart terms to cover the geography and topography of the landscape is discussed in more detail in 3.5 and 5.2.4.

Dirr-kin-ninggi and dirr-wun-ninggi denote the near and far sides of riverbanks1.

8-13 minbe-pe yani -kafarr, dirr -kin-ninggi yana -minmi-ket-pe
Neg -Fut 2sgGo-cross teeth-this-INSTR 2sgFeet-elbow -cut-Fut
SU Irr SU Irr =turn off
Don't cross over the river, but turn off on this side of it.

Data-kin-ninggi and data-wun-ninggi denote the near and far sides of things, like people, trees and fences, that stand upright on the ground.

1A third term dide-ninggi refers to the 'opposite side of a river' with respect to some given activity, but implies no spatial relationship to the speaker.
8-14 data -kin-ninggi nginyinggin-yilil, nem Tyekpity girribem,
shou -this-INST 1sgSee -recognise 3sgM name 3sgStand
lder- SU Pres PRO SU Pres
I recognise the one on this side, that's Tyekpity,
data -wun-ninggi nem Pincher, epe ngarrnguweri kene girribem,
shou-there-INST 3sg name BUT middle who 3sgStand
lder PRO SU Pres
and on the far side, that's Pincher... but who's that in between them.

Madi-kin-ninggi and madi-wun^2-ninggi denote the near and far sides of things that have more substantial shape; broad solid objects like hills, houses, cars etc.

8-15 mudiga madi-kin -ninggi ngariny- Ø -fi -tyat
car chest-here-INST 1sgPoke-3sg-Mp-place
SU Perf DO
I put it down on this side of the car.

8-16 fepi minbadi-nide madi -wun-ninggi fepi wagarri widdibemgu
hill big -LOC chest-there-INST hill two 3plStand dl
SU Pres SU
On the other side of Peppimenarti hill, there are two (other) hills.
de -kin -ninggi wantyirr-nyine piwari,
Ctry-here-INST place -FOC name
cl name
The nearside one is called Wantyirr,
da -wun-ningg -endi nyin Banimbilerri-nyine
Ctry-there-INST-SAME ANA place -FOC
cl name
and the farside one... that's Banimbilerri.

8-16 also demonstrates the capacity for kin-ninggi and wun-ninggi to bear the dV- 'country' bound class marker (cf. 5.2.4).

8.1.4 Other Deictics
In addition to the spatial deictics kinyi, werrfe and wunu, there are nine other terms that are widely used in Ngan'gityemerri to specify relative spatial arrangements. Six of these are the antonymic couplets;

8-17 fangu - front mendi - close ganggi -high/above
syirre - behind ngatypirr - distant warrifi/apukek (K) -low/under

2I have recorded madi-ye-ninggi as an alternative for madi-wun-ninggi, in both NgW and NgK. -ye- is synchronically unanalysable as any independent morpheme, but note me-ye-ninggi 'five' in 8.3.1.
8.1.4.1 Front and Behind

Fangu/syirre can denote either the front/rear part of something, as in 8-18 below, or the position 'in front of' or 'behind' something, as in 8-19.

8-18 wetimbi, syirre -pagu wirrigu -pe, narrgu fangu yirrigu - Ø
FINE behind-HITH 3plSit dl -Fut 2dl front 2plSit dl-IMP
SU Irr SU PRO SU Irr SU
It alright, the two (women) can sit in the back (seat), you two sit in the front!

8-19 kintyirri fangu yedi -tye gunugunu-werre
name front 3sgGo-Past old -ASSOC
SU PImp women
Kintyirri (name of community truck) was travelling in front (of us) laden with old women.

8.1.4.2 Close up and Far away

Mendi/ngatypirr denote short and long distances, respectively.

8-20 wur-nurse minbe-merrendi gani -lali ngatypirr
F - Neg -PROHIB 3sgGo-roll distant cl SU Irr
The nurse (being on 24 hr call) mustn't wander far away,
kin -napa -ndi wiri -pe mendi
here-JUST-SAME 3sgSit-Fut close SU Irr
she has to stay close by here.

8-21 minbe ya -ngi-tipek - Ø mendi, ngatypirr-pagu yaneyerri-ngiti
Neg2sgPoke-1sg -follow-IMP close distant -HITH 2sgGo* -1sg SU Irr DO SU Irr IO
Don't follow so closely, come behind me at a distance!

8.1.4.3 Up and Down

Ganggi/warrifi, variably translated as 'high, above, on top' / 'low, beneath', typically represent poles within the vertical trajectory. Their usage in this sense is demonstrated in 8-22 and 8-23.

8-22 piwulil-nide ganggi dede nginge -tye
vine -LOC high camp 1sgLie -Past SU PImp
I slept up in the vines.

8-23 keninggisyi-nide warrifi wibem meringgi
canoe -LOC low 3sgLie shade SU Pres
He's lying in the shade beneath the boat.
However *ganggi* and *warrifi* additionally function as the primary terms in a system of direction marking. As Ngan'gityemerri differs from many Australian languages in not using terms for compass points\(^3\), I will briefly sketch out the details of this system here.

Rather than superimposing over their landscape a symmetrical grid of the NSEW compass type, Ngan'gityemerri speakers make use of a network of real lines that are etched into their landscape. Branching out from the major rivers are increasingly smaller tributaries. It is this random grid of the lines of waterflow that Ngan'gityemerri speakers use to make reference to directions. This vast network of lines covers the entire landscape (i.e. there is no place from which the flow of water is not predictable) so has the capacity to provide highly specific reference. The primary terms used in respect to this system are *warrifi* and *ganggi*. Normally these are used with reference to vertical trajectory, but within the parameters of the directional system are better glossed as 'upstream' and 'downstream'. Needless to say, given the random nature of the grid, the directions 'upstream' and 'downstream' can have no consistent correspondence to compass directions. In the western side of Ngan'giwumirri country, for instance, the flow of the larger rivers is vaguely SE to NW, whereas in the eastern half it is vaguely SW to NE. Obviously the minor creeks completely violate compass directions by flowing in all directions.

In giving directions to reach any particular place then, a Ngan'gityemerri speaker will tell you something like this: 'follow this creek downstream, turn upstream at the nearside bank of the arm called Kamintyam, follow it upstream crossing two smaller arms, turn upstream at the next arm and you will see it.' In stipulating whether you cross an arm

\(^3\)There are two clauses used by Ngan'gityemerri speakers that function in a minor capacity as compass directionals. These are:

\[
\begin{align*}
\text{mirri meng -ge -tet} & & \text{mirri yenim-dum} \\
\text{sun 3sg HandsDir-belly-arise} & & \text{sun 3sg Go -sink} \\
\text{SU Pres} & & \text{SU Pres} \\
The \text{sun comes up.} & & \text{The sun sinks.}
\end{align*}
\]

On the few occasions that I have heard these phrases used in this manner, their utterance has been accompanied by hand-pointing in the appropriate direction. There are no terms used for north or south, and the two terms for east and west are so under-exploited that it seems to me that they exist above and beyond the traditional Ngan'gityemerri directional system which is simply not of the compass directional type. *Mirri menggetet* and *mirri yenim dum* may be traditionally employed terms, or they may be calques on either neighbouring languages or indeed English. Either way, in contemporary Ngan'gityemerri they appear to be disfavoured.
then turn up/down on its far bank, or don't cross and turn up/down on its
nearside bank, you can govern progress through this network quite simply.
A textual example is given in 8-24.

8-24 kamintyam dirr -kin-ninggi yana -minmi-ket -pe,
creek name teeth-this-INSTR 2sgFeet-elbow +cut -Fut
= this side of SU Irr =turn off
Turn off on the nearside bank of Kamintyam,
minbe yani -kavarr dideninggi, dirr -kin-ninggi yana -minmi-ket-pe
Neg 2sgGo-cross otherside teeth-this-INSTR2sgFeet-elbow-cut-Fut
SU Irr =this side of SU Irr =turn off
Don't cross to the otherside, turn off on this nearside,
ganggi -pe yana -minmi-ket -pe, yumu-tyerr -pe ba -wedi nyin
up =Fut 2sgFeet-elbow-cut-Fut 2sgDo-mouth-Fut arm-small ANA
stream SU Irr =turn off SU Irr
turn upstream and follow that little creek up.

8.1.5 Between, Side by Side, and Single File
The three remaining spatial terms, indicating the positional
relationship holding between two/three or more entities, are;

8-25 ngarrnguweri - between/halfway
melpemelpe - side by side (cf. melp - flat)
fenggu - single file (cf. fenggu - long)

Ngarrnguweri has been demonstrated in 8-12 and 8-14 meaning 'between
two points', and in 8-26 below denotes a point 'halfway round a circle'.
Examples of melpemelpe and fenggu are given in 8-27 and 8-28.

8-26 nganggidi-tye ngarrnguweri nyin,
1plincGo-Past middle ANA
SU Plmp
We went halfway round that (hill),
epe ngambarany -fi -pal -pagu mumba nyin -endi
BUT 1plincPokeDtr-Mp-return-HITH track ANA-SAME
SU Perf
then came back again, the same way.

8-27 melpemelpe nganniny-tyerr, ngiddinge -ngan-derri-tye
side by side 1plexGo -stop 1plexStand-LOC -back -Past
SU Perf SU Plmp
We halted side by side, standing on its back (the escalators).
We went up in single file, and that white women, in front, opened the door.

8.2 Time

This section lists most of the words and expressions that Ngan'gityemerri speakers use in locating activities and events with respect to time. The temporal categories that are marked by auxiliary verb inflection have been discussed in 3.4.1. Here I look at freeform temporal qualifiers.

8.2.1 Immediate time

8-29 kultyi yeyi-nimbi  - a few days ago
kultyi-nimbi  - yesterday
tyawurrup/detyengi (K)  - today
wade-ninggi/ngunyine-ninggi (K)  - tomorrow
kultyi yeyi-ninggi  - in a few days' time

Amongst these expressions we find -nimbi and -ninggi (which we have previously encountered as the 'source' case inflection (cf. 6.1.5) and 'agentive/instrumental' case inflections (cf. 6.1.1-2), respectively), apparently functioning as markers of past and future time, respectively. However, other than in these four terms, and the historic time expression yu mem-nimbi (see below) and etye-ninggi 'later' (cf. 9.3.2), there is little further evidence of -nimbi and -ninggi being productively exploited in this sense.

8.2.2 Historic time

8-30 yu mem-nimbi  - long ago, in the beginning
madewetimbi  - in the old days
ambirri  - in the past
tyawurrup/detyengi (K)  - these days
yibe/yiba (K)  - in the future

Yu mem-nimbi, formally a clause with the 'say' simple auxiliary, does not inflect, the temporal expression being synchronically unanalysable. Among the texts in my data, stories about the travels and activities of ancestral beings, and those concerned with the arrival of the first Europeans, usually begin with this expression.

8-31 yu mem-nimbi Captain Cook yedi -pagu -tye,
long ago 3sgGo-HITH-Past
SU Plmp

Long ago when Captain Cook came here...
Madewetimbi generally refers to one's youth (if old), or the youth of the preceding generation (if young). Its occurrence is typically accompanied by other expressions, such as 'when I was this high...', 'when I was living at...' etc.

8-32 madewetimbi wa-nganggu ngagadi-tye, ngatya ngayi...
in the old days M -youth 1sgGo -Past father 1sg cl SU Plmp PRO
In the old days, when I was a young man, my father used to...

Ambirri refers simply to the past without any time depth reference. It may locate events that occurred minutes, days, weeks, or years ago. An example is given in 8-33 below. In addition to its function as a freeform temporal qualifier, ambirri also occurs as a suffix in the ordinal sense 'first'. This is discussed in 8.3.3

Tyawurru, given as 'today' under immediate time, conveys, in its historical time sense, the notion of 'these days' or 'contemporary times', much as 'today' does in English.

8-33 tyawurru kinyi kuru-nyine wannim-kukuduk wa-nganggu,
these this beer-FOC 3plGo -drink M -youth days SU Pres redup cl
These days young men drink beer,
ambirri kuru minbe-tye warrani-kukuduk
in the beer Neg -Past 3plGo -drink past SU Irr redup
but in the past they never used to drink beer.

Yibe, like ambirri, refers simply to the future without any time depth reference.

8-34 yibe nga -Ø -fi -me -pe, wemi -mbi-kerrety-pe
later 1sgPoke-3sg-Mp-hand-Fut 3sgHands-2sg -grasp -Fut
SU Irr DO SU Irr IO
I'll give it to him later, he'll mind it for you.

8.2.3 Time of Day

8-35 dam-fi-sul - dawn
elifela - early morning
mirri-ganggi - hot time
mirri-kultyi - cool time
panggurra - twilight
nganingiyi - dark time
ningipeliri - middle of the night
Dawn is described by a verb, dangim-fi-sul, of which mirri 'sun' is subject.

8-36 nganggidi-purppurrk-tye dam -fi -sul -napa
1plincGo -dance -Past 3sgPoke-Mp-waken-UNTIL
SU Pimp redup SU Perf
We danced until dawn.

Elifela, a loan from 'early fella' (via Kriol), referred to in the past is understood as 'this morning', and in the future as 'tomorrow morning'. I have no evidence that this loan has replaced any other term.

8-37 elifela yemi -ngirrki-du -Ø
early 2sgHands-ldlex -touch-IMP
morning SU Irr DO
Wake us early in the morning!

Mirri-ganggi (sun-high) covers the period of day from about 11am-3pm, when the sun is overhead, and its heat discourages energetic activity.

8-38 mirri-ganggi men'gen-ngiti
sun -high 3sgArrive-1sg
SU Perf IO
He came to me in the middle of the day.

Mirri-kultyi, often glossed by Ngan'gityemerri speakers as 'cool time', covers the period of time from about 3pm, when the sun begins to lose its heat, until dusk.

8-39 fepi minbadi men'gen mirri-kultyi
hill big 3sgArrive sun -cooltime
SU Perf
He reached Peppimenarti in the late afternoon.

Nganingiyi simply means darkness, and refers to the whole night.

8-40 ba nganingiyi -nyine-pefi
HORT dark -FOC -INCHO
Come on, it's beginning to get dark now!

8.2.4 All day / All night/ Always
Three adverbial particles, tyip and fal and ferrp, follow verbs conveying the senses 'all day' and 'all night' and 'always', respectively.
I slept with my shoes on all night, for fear of the cold.

She just sat there all day, in the full sun.

I always go fishing at that billabong (as a matter of habit).

Naturally these particles can only occur with verbs expressing activities/states that are amenable of extended-in-time interpretations. As discussed in 4.4.2, such interpretations may be available through the durative lexical aspectual nature of the verb itself, as in 8-41 and 8-42. For an aspectually neutral verb like 'go' in 8-43 iterative aspect, as allowed for in the habitual reading of the 'present' auxiliary inflection, allows for an extended-in-time interpretation. For an inherently punctual verb like 'cough', in 8-44 below, iterative aspect, as marked morphologically by reduplication of the verb root, allows for an extended-in-time interpretation.

I was coughing all night / all day / all the time.

8.2.5 Weeks and Months

The English weekday and month terms have all been borrowed into Ngan'gityemerri, with the same reference except that syandi 'Sunday', in addition to its particular weekday meaning, has taken on the sense of 'a week'. This use of syandi parallels the use of diwin 'moon' to mean 'month', as shown in 8-45 and 8-46.

Maybe I'll go next week.

He went home last month/about a month ago.
As shown in these two examples, syirre (which we have encountered as the spatial term 'behind') and ambirri combine with syandi and diwin to designate that unit-of-time either preceding or following the present. The word yeyi 'other' can be added to these temporal expressions, and here it implies the next consecutive such unit, rather than simply any other one. Thus, syandi syirre yeyi 'the week after next', diwin ambirri yeyi 'a couple of months ago'. Reference to specific days of the previous or following week can be made by denying the 'this week' interpretation, and designating the weekday as belonging to the preceding/following week. This is demonstrated in 8-47 and 8-48 below.

8-47  minbe  |  wednesday  |  kinyi,  |  syandi  |  yeyi-nawa
       |  Neg       |  this    |  week    |  next-INSTEAD
     Not this Wednesday, but (the Wednesday) of next week.

8-48  minbe  |  monday    |  kultyinimbi,  |  syandi  |  ambirri-nawa
       |  Neg       |  yesterday  |  week    |  before-INSTEAD
     Not the Monday (that was) yesterday, but (the Monday) of last week.

8.2.6 Time of Year

Kidin 'wet season' is also used to denote a full seasonal cycle between wet seasons, thus 'a year'. In this sense it behaves much like syandi and diwin, see above. e.g. kidin syirre yeyi 'the year after next' etc.

Kudede is that time of year, usually around January or February, when there is monsoonal rain everyday.

Wangi and marrawuk/fuke (K) specifically denote the prevailing winds that are associated with the two complete metereological systems that dominate the local seasonal cycle, i.e. the Wet and the Dry, respectively. Wangi blows from the west, bringing mosquitos from the swamps, marrawuk brings cool dry air from the east. Both these terms though, can be used more generally in reference to the metereological sytem, rather than just its prevailing wind.

Additionally, several full clauses are used to denote times-of-year, e.g.

8-49  wurru  |  wubu  |  -derri-pal  |  -pe
      |  grass  |  3sgBash-back-bend-Fut
      |  SU Irr
     (lit: the grass will be knocked flat)
     That time in about May when the long dried out summer
     grasses are knocked flat by the wind and late showers (known
     in the English of Ngan'gityemerri speakers' as 'knock 'em
down time').
8-50  lirrilirri-mem-nyine  
muggy-3sgDo-FOC  
SU Pres  
(lit: it is muggy now)  
the muggy 'build up' in humidity from  
Oct-Dec, preceding the rain.

8.2.7 Short time and Long time  
The antonymic pair nuwurr/wityi(K) and fenggiderri/fekiderri(K) are  
concerned with time-span duration, not a particular point in time. They  
indicate 'a brief period of time' and 'a long period of time', respectively.

8-51  wurruke yawam -burrki-nuwurr-pe  
3dl 2sgTake-3dl -a little -Fut  
PRO SU Irr DO while  
Take these two outside for a little while.

8-52  ngatya, meny -nin,  
detyirri nuwurr  
father 3sgSay -ldlincl navel a little  
SU Perf IO while  
'Dads!' he said to us, '(I need to stop for a) quick piss'.

8-53  fenggiderri yemen'ge-pe, minbe mendi-wurr
long time 2sgArrive-Fut Neg close -UNSATIS  
SU Irr  
It'll take a long time for you to get there, it's a really long way !

8-54  fenggiderri dini -tye, ngirrgirr-ne -nyine dini -bubu -tye  
long time 3sgSit-Past sleep -PURP-FOC 3sgSit-sleepy-Past  
SU PImp  
He was here for too long a time, he was getting sleepy.

Their point-in-time equivalents, indicating 'recent past/future' and 'a long  
time off in the past/future', employ tyawurru/detyengi(K) (discussed in  
8.2.2 as 'these days'), and its negated equivalent minbe tyawurru/detyengi  
(K), respectively.

8-55  yinnyirri- Ø,  
mipurr defirr tyawurru kinyi-nyine-pagu  
2pl See -IMP man foot today here -FOC -HITH  
SU Irr  
Look, there's a man's footprints (made) recently (coming) this  
way along here !

4Detyirri 'navel' and dege 'belly' can be euphemisms for 'piss' and 'shit', respectively.
The adjective *warrmadi* 'fast/quick' is generally used with reference to speed in motion. However it can also take on the temporal sense 'soon', as in 8-58.

Where the notion of 'a short time' is linked, not to the present, but to some other point-in-time reference, (i.e. 'close up to' some designated time), this can be indicated with *mendi* (which we have already discussed as a spatial qualifier meaning 'close').

The terms that qualify space and time in Ngan'gityemerri are, on the whole, quite distinct. Note though that *warrmadi* and *mendi* can be said, at least to some extent, to span both the spatial and temporal domains.

8.3 Number

The process of numeration is most widely exploited in Ngan'gityemerri in the tracking of participant number. In addition to person categories and the inclusive/exclusive distinction, the obligatory verbal crossreferencing of core participants within the Ngan'gityemerri verb must include information regarding one of the four number categories;
singular, dual, trial and plural. The full discussion of the morphology of this participant number marking can be found in 3.2.1.2.

8.3.1 Cardinal Numbers

Ngan'gityemerri employs three numeral terms; wunggume/wukume (K) 'one', wagari/fagarri (K) 'two, and warrakma 'three'. Additionally, daba 'arm' or deme 'hand' are used for 'five', and me-ye-ninggi 'ten' (lit: hand-other-INSTR). I have elicited wagari-wagari for 'four', but never heard it used spontaneously. Some of these cardinal numerals can be found in 8-60.

8-60  gagu ngalwangga nem daba wunggume-ninggi wum -gat,  
animal short-necked 3sgM arm one -INSTR 3sgSlash-hook  
generic turtle sp. PRO =five SU Perf  
He caught five short-necked turtles,  
nyinyi warrakma yum -gat, ngayi awiny-napa wunggume,  
2sg three 2sgSlash-hook 1sg bream-JUST one  
PRO SU Perf PRO  
you caught three, and I got just the one bream.

Numerals additionally have a minor use with the prefix me-, denoting the duration of a given number of nights. This use of numerals has only ever been found with verbs 'of staying', 'camping' etc.

8-61  me -wagarri ngi -pe Sydney,  
DUR-two 1sgSit-Fut  
SU Irr  
I'll be staying in Sydney for two nights.

8.3.2 Definite Determiner

Other than in the recounting of tallies, as in 8-60 above, or with the durative prefix me-, Ngan'gityemerri speakers make little use of these cardinal numerals. The most frequent usage of wunggume/wukume(K), is not really as a numeral, but as a (definite) determiner, referring to an entity which is definite in the speaker's mind, but not necessarily so in the mind of the addressee. This is very similar to the use of 'particular' and 'certain' in English examples like; 'There was this particular man who...', or 'Certain people think they can...'. Some examples of this usage of wunggume/wukume(K) are given in 8-62 to 8-64.

8-62  nintyi wunggume yenim ngundum -syi -ket,  
  knee one 3sgGo 1dlincSlash-nose-cut  
  =corner SU Pres SU Perf =go round a point  
.... as we went around that particular corner.
8-63 watypela wunggume wa-government Darwin-nimbi
whitefelle one M-
cl
-SOURCE
This particular government official from Darwin...

8-64 mityity wur-wunggume kine yedi-tye fepi minbadi, meny-ngiti,
white F - one this 3sgGo-Past hill big 3sgSay-1sg
woman cl place SU Plmp SU Perf IO
That particular woman, who came here to Peppimenarti, she
told me...

In cultural activities requiring more highly refined enumeration,
such as the distribution of money in commerce or gambling,
Ngan'gityemerri speakers use English numerals and terms for units of
measure (pound, mile, pint, dollar, etc.). Some examples are given below.

8-65 three dollar fifty owe-mem -ngiti
-3sgDo -1sg
SU Pres IO
She owes me three dollars fifty!

8-66 dam -ngi-fi -me -tyuk ten dollar worth syiri damuy
3sgPoke-1sg-Mp-hand-place Striker eye
generic =cartridge
She gave me ten dollars worth of cartridges.

8-67 lawa mi-half dangim-madi-tyat
damper Pf - 3sgPoke-chest-place
cl SU Perf
He put in half a loaf of bread.

8.3.3 -Ambirri as Ordinal 'First'

Ambirri, the freeform temporal qualifier discussed in 8.2.2, also
functions as an enclitic conveying the ordinal sense of 'first'. That is, it
denotes a clausal proposition as occurring prior to other conceivable
propositions. In this capacity -ambirri shows the '2nd position' occurrence
preference that, as noted in 6.2, characterises the behaviour of those enclitics
that have scope over an entire clause rather than just their immediate host.

8-68 nem-ambirri warriny -Ø -fi -me miyi
3sgM-first 3plPoke -3sg-Mp-hand plant
PRO SU Perf DO =give food
They (hostesses) served him his food first (i.e. before me).
I'll get some beers for you up there first (i.e. before doing anything else).

With stative verbs -ambilri denotes that clausal proposition as a state that 'already' exists prior to some other proposition.

Another man was already there.

He's already drifting off to sleep.

A favoured construction in Ngan'gityemerri for giving emphasis to expressions of space, time and number, is to negate their opposites. Examples of negated spatial and temporal qualifiers have already been given in 8-11 and 8-56 and 8-57. Although numeric emphasis can be given using the quantifiers mebuk/mabuk (K)'many' and bakuty 'many', again the favoured construction is to negate an expressed singular quantity. This is demonstrated in 8-72 and 8-73.

Hundreds of them came here !!

There was a huge crowd of women, those from Peppimenarti, those from Nadirri...

Another strategy (seemingly contradictory to the one just mentioned) in emphasising plural number is to treat a very large group of people as a singular unit. That is, once reference to the size of group has been contextually established, thereafter the group will be cross-referenced by singular pronouns, both freeform and those bound to the verb. This strategy is demonstrated in 8-74 below, where the term minde-fela-ndi (Neg-
person-SAME) is used to mean 'what a lot of people!'. The crowd is thereafter referred to as nem 'he' and pronominally cross-referenced on the verb as 3rd person singular.

8-74 nganniny-wurr, minbe-fela5-ndi mityity watypela, ngirrminy-gu
1plexGo -enter Neg-person-SAME white white 1plexThink-dl
SU Perf =no-one woman man SU Perf SU
We went in..."What a lot of white men and women !!!", we
thought to ourselves.

epe nem pey-ambirri dini -tye watypela, minbe-nin -tyeri,
BUT 3sgM in -first 3sgSit-Past white Neg -ldlinc-ear
PRO place SU Plmp people IO
All those whitefellas were already in there, we hadn't expected
that !

5The generic mipurr/yedi (K) 'man' can also used at a higher taxonomic level to denote 'person'. Thus 'no-one', in the gender unspecified sense, can be expressed by minbe-mipurr. However fela, from English 'fellow' via Kriol, has been borrowed into Ngan'gityemerri as a gender unspecified third term.
Chapter 9

Pronouns, Interrogatives and Discourse Demonstratives

9.1 Pronouns
9.1.1 Paradigm

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Trial</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 inc</td>
<td>nayin</td>
<td>dl + -nime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 ex</td>
<td>ngayi</td>
<td>ngarrgu/ngagarri(K)</td>
<td>dl + -nime</td>
<td>ngagurr</td>
</tr>
<tr>
<td>2</td>
<td>nyinyi</td>
<td>narrgu/nagarri(K)</td>
<td>dl + -nime</td>
<td>nagurr</td>
</tr>
<tr>
<td>3</td>
<td>nem (m)</td>
<td>wurruke/wirrike(K)</td>
<td>dl + -nime</td>
<td>wurrum/wirrim(K)</td>
</tr>
<tr>
<td></td>
<td>ngayim (f)</td>
<td></td>
<td></td>
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</tbody>
</table>

Table 9-1

The paradigm is typical of pronominal systems in Daly region languages, and within prefixing languages generally, in its range of number categories, and in the restriction of the gender distinction to the 3rd singular forms only (as is also true of the bound pronominal paradigm).

However, the paradigm cannot be readily accounted for as a single system. The lack of homogeneity in the categorisation and morphological derivation of the 1st inclusive forms on the one hand, and the rest of the paradigm, on the other, requires that each of these be treated as separate sub-systems.

Looking firstly at the non-1st singular pronouns, there are three basic number categories, singular, dual and plural. While dual may be a more marked category than plural in discourse terms, there is no particular morphological reason to view either the plural or dual forms as more basic. A fourth highly marked category, trial, is derived by suffixing the dual form with -nime.

Among the 1st inclusive pronouns however, there are only two number categories, there being no distinction between plural and trial. The 1st inclusive plural/trial pronoun is derived morphologically by adding the suffix -nime to the dual form. In this respect, viewed from the perspective of the non-1st inclusive sub-paradigm, nayin-nime has the formal structure of a trial form. However given the specifically plural reference of nayin-nime, the suffix -nime has clearly different meanings within the two sub-systems.

This asymmetry between 1st inclusive and the rest of the paradigm, has been noted in many prefixing languages. For some of these languages this asymmetry is simply the result of their being viewed from a
singular/dual/trial/plural perspective. For these languages re-analysis as a minimal/augmented system has allowed the merging of two apparent sub-systems into a single uniform one (see for instance the analysis of the Rembarrnga pronominal system in McKay 1975). A list of languages analysed as having minimal/augmented pronominal systems is given in Dixon (1980:353). Note though that treating the 1dlinc pronoun as a minimal unit does not resolve the asymmetry evident in the Ngan'gityemerri pronominal paradigm.

Pronouns in Ngan'gityemerri pattern with other nominal subclasses in being independent forms that can bear local case suffixes, and host bound class marking proclitics. These capacities are demonstrated in 9-1 and 9-2 below.

9-1 kanbi nyinnin me -wa wembem nem-nine-nimbi
didjeridu ANA 3sgSnatch-pick house 3sg -LOC-SOURCE
SU Perf up PRO
He picked up that didjeridu from inside of his house.

9-2 gagu kinyi a-ngayi
animal this A-1sg
generic cl PRO
This beef is mine.

9.1.2 Possession

Freeform pronouns are implicated in the marking of possession in Ngan'gityemerri. Cross-referencing the possessor, they occur as the final element in this complex NP type, following the word denoting the possessed entity. Where a specific possessor term, such as a name, is included within this NP, they follow this as well. The possessive construction then, has the underlying tri-partite structure;

1 2 3
9-3 + possessed entity ± possessor noun + possessor pronoun

This complex triple NP structure is demonstrated in 9-4 to 9-7, below.

9-4 [wa-wurrkama yemin-wurrkama] [Alan] [nem]
M- work 3sgGo-work 3sgM
cl SU Pres PRO
Alan's working man...

9-5 [membirr] [Tyemeny] [ngayim]
child personal 3sgF
name PRO
Tyemeny's child(ren)...)
The car belonging to those two old men...

This thing of who's?
(i.e. Who's thing is this?)

Further discussion of kene 'who' and the indefinite pronoun can be found in 9.3.1.

The 3sg masculine pronoun nem, can be the gender unmarked pronoun within this structure, where the possessor is inanimate or non-individuated. It is this gender-unmarked usage that accounts for the occurrence of the masculine pronoun nem cross-referencing the possessor falmi 'women', in 9-8.

This is both a women's and men's bathroom.

The possessor noun is given as optional in the formula set out in 9-3. In fact the most frequently encountered possessive structures consist simply of parts 1 + 3, as demonstrated below.

9.1.3 Vocative use of Pronouns

In Ngan'gityemerri there is an interesting shift between pronominal person categories that is triggered by constraints on the vocative use of other referential terms.
In calling out to someone to attract their attention, Ngan'gityemerri speakers can choose from a wide array of terms. Most commonly they use kinship terms, though they also like to use sub-section terms and nicknames or other names that make indirect reference. The direct use of personal names is disfavoured, and 2nd person pronouns are never used vocatively. When calling out to a group of two or more people, kinship and sub-section terms only suffice where all members of the addressed group either bear the same relationship to the caller, or belong to the same sub-section. Where these conditions are not met, and the group represents mixed kin or subsection categories, the third person dual, trial and plural pronouns, wurruke, wurruke-nime and wurrum, are used vocatively.

9-12 wurruke, ya ngingipiri-nyine-pefi
3dl hey dark -FOC -INCHO
PRO
Hey you two! it's getting dark now!

9-13 wurrum, yinnyirri-Ø, mipurr defirr tyawurru kinyi-nyine-pagu
3pl 2plSee -IMP man foot today here -FOC -HITH
PRO SUIrr
Hey you mob! Look, there's a man's footprints (made) recently (coming) this way along here!

9.2 Discourse Demonstratives Yaga and Nyin(nin)

The two demonstratives yaga and nyin(nin) have no function as spatial or temporal deictics, but rather function as discourse deictics. Their function is to locate things with respect to their thematic status within a discourse, not with respect to space or time. Yaga follows the first mention of referents introduced to a discourse, establishing them as topic, usually where they represent an unpredictable or surprising topic change. Nyin(nin) is an anaphoric demonstrative referring back to any person/thing/notion that the speaker can assume the addressee will understand. This assumption can generally be based on the shared understanding that the intended referent is either currently topical, or is sufficiently well established within the discourse that its restatement would be superfluous. Nyin(nin) is frequently contracted to nyin, with no obvious semantic change. A few examples within my texts suggest that the full form may possibly convey more definite reference.

The function and reference of both yaga and nyin(nin) can only really be understood within the context of a sizable discourse sample. Single sentence examples containing these demonstratives are therefore fairly meaningless. For this reason, although I have included a single example of
each here, readers are encouraged to look at the contextually established occurrences of yaga and nyinnin in the texts in Appendix C.

9-14 below comes from a text in which Robert Daly is telling me of events concerning various people, all of whom are unknown to me. Taking into account the difficulties he expects me to have in tracking reference correctly, he works nyin(nin) overtime to make explicit who is doing what to who. Note that here the context is sufficiently complicated that the anaphoric marker alone does not suffice to disambiguate the actors. Robert has to tag each anaphor to an explicit name or descriptive nominal.

```
9-14 minmi meny -ne, kanbi yaga minbe-merrendi gantyawam
No 3sgSay -3sg didjeridu DEM Neg -PROHIB 2sgTake
SU Perf IO
SU Irr
'No way!', (the airport luggage man) told him, 'you can't take airplane-nide,
nimbi gani -lala ngarapa-wurr
-LOC CAUS 3sgGo-split fragile -UNSATIS
SU Irr
didjeridus on the plane, it might split, it's too fragile'.
```

```
9-15 ngawam-nirr-pe wunu ngan-dede ngayi, mityity nyinnin
1sgTake-2pl -Fut there LOC-camp 1sg white ANA
SU Irr DO PRO woman
'I'll take you all back to my place', he said to that woman...
meny -nge, wa-wulmen nyin -ninggi Doug,
3sgSay -3sgF M -oldman ANA-AGENT
SU Perf IO cl
That oldman, he was the one who said it..Doug.
yityi -ngumbumbu-nime-pe mityity nyin dam -ngi-tyerr -pu
what-ldlinc Do -pl -Fut white ANA 3sgPoke-1sg-mouth-ask
SU Irr SU woman SU Perf DO
'What shall we do ?', that woman asked me.
```

9.3 Interrogatives

9.3.1 Basic Interrogatives

Ngan'gityemerri uses the following basic set of five interrogative forms.

```
9-16 tyagani - what
kide - where, how, which
kene - who
etye - when
erreke - how many/often
```

These deictics always occur before the verb, typically clause initially, and are favoured hosts for the '2nd position' fronting of verbal tense and
directional enclitics (see 9-19 and 9-24 below). Tyagani enquires about the identity of some nameable entity (cf. yityi in 9.3.4), and presupposes no knowledge about that entity (cf. tyen- in 9.3.4).

9-17  tyagani yirim -lalirr
what  2sgSit -eat
SU Pres
What's that you're eating ?

9-18  yerr-kinyi tyagani
Tr-this  what
cl
What's this thing ?

Kide as an interrogative of location oriented verbs, i.e. verbs of motion and state, enquires about spatial position.

9-19  kide -pe ngambani
where-Fut  1plinc Go
SU Irr
Where shall we go ?

9-20  dede kide yaganiny-du
camp where 2sgGo -sleep
SU Perf
Where did you camp the night ?

Kide also asks 'which?', in presenting a choice between multiple entities. Where the entities in question are all members of the same noun class, kide will bear the appropriate bound class proclitic. This is demonstrated for the 'animal' class in 9-21.

9-21  gagu a-kide derrigidi-yerim
animal A-which want -2sgHands
generic cl SU Pres
Which of these animals/bits of meat do you want ?

Kene enquires about the identity of people only, and can be thought of as the human equivalent of tyagani. Where kene can ask only about living humans, tyagani 'what' must be used to ask about inanimates, lower animates, spirits, corpses and ancestral beings. The distinction between humans and non-humans is then quite rigid. The response to a kene question will always identify a particular person.
Etye 'when' enquires about temporal position.

9-24 etye -pe yara -fi -pal -pagu
when-Fut 2sgPokeDtr-Mp-return-HITH SU Irr
When will you be coming back?

9-25 walkity kinyi etye -ngini wemi -ta
NgK flower this when-Fut 3sgHands-strike SU Irr =open
When will this flower open?

Erreke asks about the number of some entity.

9-26 erreke nga -nyi-fi -me -pe money
how 1sgPoke-2sg-Mp-hand-Fut much SU Irr DO
How much money should I give you?

9.3.2 Local Case Interrogatives

All of these five basic interrogatives can bear local case suffixes, resulting in the further interrogatives exemplified below. The case suffixing of these interrogatives is quite productive. The examples given here are all those that have occurred in my text database. However, subject to the requirement of semantic plausability, other interrogative + case suffix combinations will be acceptable.

Tyagani takes the causative and purposive suffixes, tyagan-nimbi 'as a result of what' and tyagan-ne/ngini(K) 'for what purpose', respectively.

9-27 tyagan-nimbi yirim -di
what -CAUS 2sgSit -cry SU Pres
What are you crying from?

9-28 tyagani-ngini yirribem-fili kinyi
what -PURP 2sgStand-roll here SU Pres
What are you hanging about here for?

Tyagani and kene, those interrogatives that ask about the identity of objects and people, can predictably take the AGENTive/INSTRumental suffix.
9-29 tyagan-ninggi yariny -Ø -syi -bang  
*what -INSTR 2sgPoke-3sg-nose-pierce*  
SU Perf DO  
What did you use to pierce his nose ?

9-30 kene-ninggi wudum -nyi -mi -wul  
*who-AGENT 3sgShove-2sg-Val-return*  
SU Perf DO  
Who brought you back here ?

Both have also been recorded with the PURPosive, ASSOCiative and LOCative suffixes.

**Kide** takes the SOURCE and HITHer/THITHer suffixes to enquire about the locational origin, and direction of motion verbs.

9-31 kide -nimbi yagadi-pagu -tye kinyi  
*where-SOURCE 2sgGo -HITH-Past here*  
SU Plmp  
From where have you come here ?

**Etye** takes the SOURCE suffix, enquiring about either the temporal origin of states, as in 9-32, or the frequency of dynamic activity, as in 9-33.

9-32 etye -nimbi dede yannim-du dideninggi  
*when-SOURCE camp 2plGo -sleep other*  
SU Pres side  
Since when/how long have you been camping on the other side of the river ?

9-33 etye -nimbi yarim -burr-fi -mi -tyatit kuwul-nide  
*when-SOURCE 2sgPoke-3pl -Mp-Val-place school-LOC*  
SU Pres DO =teach  
How often do you teach (the kids) in school ?

**Etye** and **erreke** can both take the INSTRumental suffix -ninggi. In this form neither are really interrogatives, but function as indefinite expressions. **Etye-ninggi**, as in 9-34 denotes some indefinite time in the future. (Here -ninggi clearly implies future temporal reference. In 8.2.1 I noted this minor function of -ninggi in other temporal expressions such as wade-ninggi 'tomorrow' etc.).

9-34 ep etye -ninggi ya -ngi-fi -me -pe  
*perhaps when-INSTR 2sgPoke-1sg-Mp-hand-Fut*  
SU Irr DO  
Perhaps you could give it to me at some later time ?
Erreke-ninggi is concerned with the quantification of some activity (cf. quantification of some entity in 9.3.1). It can be used interrogatively, but is most frequently encountered in the rhetorically exclamatory sense shown in 9-35.

9-35 kanbi ngayi erreke-ninggi ngagadi-fifi -tye
didjeridu 1sg how -INSTR 1sg Go -blow-Past
PRO many SU Pimp redup
(Well, I don't know) how many didjeridus I blew!
(i.e. how many songs I accompanied on the didjeridu)

9.3.3 Indefinite Interrogatives

The addition of the INDEFinite suffix -nawa to both the basic five interrogatives and the additional interrogatives formed with local case suffixes, gives the following indefinite deictics. (The 'INSTEAD' sense of -nawa is discussed in 6.2.9). Note that, in the second group of interrogatives (i.e. those formed through prefixing one of the five basic interrogatives with local case enclitics), it is the rightmost position of -nawa, that gives it scope over more 'inner' case enclitics as well as the basic interrogative. It is this scope of -nawa that has led me to treat examples like tyagan-nimbi 'as a result of what?' as 'local case interrogatives' in 9.3.2 rather than as 'interrogatives plus case suffixes'.

9-36 tyagan-nawa - whatever thing
kide-nawa - somewhere, wherever
kene-nawa - whoever
etye-nawa - whenever
erreke-nawa - however many things

tyagan-nimbi-nawa - from whatever cause
tyagan-nawa-ne/ngini(K) - for whatever purpose
tyagan-ninggi-nawa - using whatever instrument
kene-nimbi/ninggi-nawa - at the agency/cause of whoever
kide-nimbi-nawa - from wherever
etye-nimbi-nawa - from whenever/
etye-ninggi-nawa - at whatever frequency
erreke-ninggi-nawa - at whatever future time
erreke-ninggi-nawa - however many times

The indefinite suffix has also been found on the spatial 'distant' deictic wunu/wuni (K), as in 9-37.

9-37 wun-nawa yirrim-fili
there-INDEF 3sgGo* -roll
SU Perf
He headed off thataway/in that general direction.
9.4 Other Interrogatives, Tyen- and Yityi-

All the interrogatives surveyed in 9.3.1 to 9.3.3 belong to the deictic word class. There remain two additional terms that can be defined as interrogatives in terms of their semantic role, but which differ from the deictic interrogatives in their syntactic function and morphological possibilities.

Tyen- 'what kind of?' has no independent function, occurring only in combination with noun class/classificatory generics. e.g.

12-22 tyen-nawurr - what kind of tree/thing?
yen-mi - what kind of plant food?
yen-ga - what kind of animal/meat?

Where tyagani asks 'what?' pre-supposing no knowledge about the entity in question (except that it is inanimate), in contrast, 'tyen+noun class generic' seeks clarification of the species within the genus designated by the noun class marker/classifier. Tyen- is discussed in more detail in 5.4.

Yityi1- differs in word class status from the other interrogatives in being a verb root. Yityi- forms a complex verb in combination with only the 'say/do' auxiliary (recall that complex verbs employing this auxiliary have their verb root ordered before the auxiliary). Where tyagani asks 'what?' of entities, yityi- 'say/do' enquires about 'what was done or said?'.

12-23 wananggal-ninggi yityi -meny -bi

doctor -AGENT what-3sgSay/Do-2sg

SU Perf IO

What did the doctor tell you/do to you.

12-24 'yawurr yerr-wurumbi yinyinggin', yityi -meny -nimbi ?

tree Tr- white gum 2sgSee what-3sgDo -CAUS

gen. cl SU Pres SU Perf

'You see the (huge burl on the side of that) whitegum tree?'

'How did it get like that?

(lit: From doing what (did it get to be like that)?).

Note that where the verb yityi- 'do' is modified by the negative particle minbe, it has the meaning 'nothing to do', as in 12-25 below.

3- were ngayi wagarri ngayi wuddum-ngirr-dum

brother 1sg two 1sg 3plShove-1plex-bury

PRO PRO SU Perf DO

My two brothers and I were locked up for three

1I frequently hear this word as ityi, with the initial /y/ completely lenited.
weeks in that room, we had nothing to do.
(When prisoners from Fanny Bay gaol were evacuated to Alice Springs gaol after Cyclone Tracy)
Appendix A

Ngan'giwumirri Auxiliary Verb Paradigms

Simple Intransitive Auxiliaries

Major

Aux 1 ngirim - Sit
Aux 2 ngibem - Lie
Aux 3 ngirribem - Stand
Aux 4 ngaganim - Go
Aux 5 ngerrimbin - Go*
Aux 6 ngumum - Say

Minor

Aux 7 ngemen'gen - Arrive
Aux 8 ngagantyin - Take
Aux 9 ngintyibem - Hang

Simple Transitive Auxiliaries

Minor

Aux 10 nginyinggin - See

Complex Transitive Auxiliaries

Major

Aux 11 ngerim - Hands
Aux 12 nganan - Feet
Aux 13 ngem - Mouth
Aux 14 ngarim - Poke
Aux 15 ngumbun - Slash
Aux 16 ngebem - Bash
Aux 17 ngudumbun - Shove
Aux 18 nginem - Heat

Minor

Aux 19 ngusyum - Suck
Aux 20 ngisyem - Pull
Aux 21 ngumunggin - Snatch

Complex Detransitivised Auxiliaries

Aux 22 ngumem - SayDtr (cf. Aux 6)
Aux 23 nginyerrem - SeeDtr (cf. Aux 10)
Aux 24 ngemen - HandsDtr (cf. Aux 11)
Aux 25 nganawam - FeetDtr (cf. Aux 12)
Aux 26 ngiwm - MouthDtr (cf. Aux 13)
Aux 27 ngaram - PokeDtr (cf. Aux 14)
Aux 28 ngebim - BashDtr (cf. Aux 16)
Aux 29 ngudem - ShoveDtr (dynamic)(cf. Aux 17)
Aux 30 ngim - ShoveDtr (static) (cf. Aux 17)
Aux 31 nginewem - HeatDtr (cf. Aux 18)
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### Notes

- **Auxes:** Auxiliar verbs with different conjugations for different parts of speech (e.g., FeetDtr, MouthDtr, PokeDtr).
- **Present:** Base form.
- **Past Perf:** Perfective form.
- **Past Imperf:** Imperfective form.
- **Irrealis:** Irrealis form.
### Aux 28 - BashDtr

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### Appendix B

**Ngan'gikurunggurr Auxiliary Verb Paradigms**

#### Simple Intransitive Auxiliaries

**Major**
- Aux 1 `ngiriN` - Sit
- Aux 2 `ngibeN` - Lie
- Aux 3 `ngirribeN` - Stand
- Aux 4 `ngaganiN` - Go
- Aux 5 `ngamerr` - Go*
- Aux 6 `ngiN` - Say

**Minor**
- Aux 7 `ngemen'geN` - Arrive
- Aux 8 `ngagantyiN` - Take
- Aux 9 `ngintyibeN` - Hang

#### Simple Transitive Auxiliaries

**Minor**
- Aux 10 `nginyinggiN` - See

#### Complex Transitive Auxiliaries

**Major**
- Aux 11 `ngeriN` - Hands
- Aux 12 `nganaN` - Feet
- Aux 13 `ngeN` - Mouth
- Aux 14 `ngariN` - Poke
- Aux 15 `ngupuN` - Slash
- Aux 16 `ngebeN` - Bash
- Aux 17 `ngudupuN` - Shove
- Aux 18 `ngineN` - Heat

**Minor**
- Aux 19 `ngusyuN` - Suck
- Aux 20 `ngisyeN` - Pull
- Aux 21 `ngiminggiN` - Snatch

#### Complex Detransitivised Auxiliaries

- Aux 22 `ngimeN` - SayDtr (cf. Aux 6)
- Aux 23 `nginyerreN` - SeeDtr (cf. Aux 10)
- Aux 24 `ngemeN` - HandsDtr (cf. Aux 11)
- Aux 25 `nganawaN` - FeetDtr (cf. Aux 12)
- Aux 26 `ngiweN` - MouthDtr (cf. Aux 13)
- Aux 27 `ngaraN` - PokeDtr (cf. Aux 14)
- Aux 28 `ngebiN` - BashDtr (cf. Aux 16)
- Aux 29 `ngudeN` - ShoveDtr (dynamic)(cf. Aux 17)
- Aux 30 `ngiN` - ShoveDtr (stative) (cf. Aux 17)
- Aux 31 `ngineweN` - HeatDtr (cf. Aux 18)
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### Aux 27 - Poke Dtr

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## Appendix C

### Texts

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<tr>
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<td>Text 3</td>
<td>Escape from Fanny Bay Gaol</td>
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<td>Text 4</td>
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This text was given by my main Ngan'giwumirri teacher Robert Daly, shortly after his return from a trip to Melbourne where, as an accomplished 'bamboo man', he and a Marrisyebin singer named Martin Warrigal were invited to perform at an ethnomusicological conference. What is given here is of necessity an extract, for the full text runs for over two hours and 100 pages of transcription. This text contains many features that are typical of Robert's narrative style; extreme detail given to travel, including all stops, and people met with along the way (getting from Peppimenarti to Melbourne takes 38 pages); great care taken to recount events in their correct chronological order; and determination to describe non-traditional things (such as trams and escalators) in his own language where possible, without lapsing into English. At the same time this text is full of new impressions; the Melbourne zoo, trams, escalators, restaurants, performing before large crowds of strangers, and uncertainty of the rules of such aspects of college life as smorgasbog meals and communal bathrooms. We take the story up from their arrival at their lodgings.

1. mipurr kinyi wagarri ngem -burri-pal -tye dede Darwin-nimbi, man this two 1sgMouth-3dl -have-Past country -SOURCE
   SU Pres IO
   'I have these two blokes here from Darwin'.

2. meny, deminy -ngirri-ba -walal, room yeyi spare-one widdibenggu,
   3sgSay 3sgHands-1dl lex -arm-shake other 3plStand dl
   SU Perf SU Perf DO redup SU Pres SU
   he told him. 'Are there two spare rooms?',

3. dam -tyerr -pu Alan-ninggi, yu spare-one widdibenggu,
   3sgPoke-mouth-ask -AGENT yes 3plStand dl
   SU Perf SU Pres SU
   Alan asked him. 'Yes there's two spare ones'.

4. yarrene-du -nyine-pe meny -ngirri, yu airplane-nimbi-wurru dengini
   2dlGo -sleep-FOC -Fut 3sgSay -1dl lex yes -CAUS-UNSATIS body
   SU Irr SU Perf IO
   'Do you want to rest now?' he asked us. 'Yes, we're feeling tired from the

5. wurek nganninggu ngirrrngirrngerrntyegu-pe, ngirrrminy-nerr,
   bad 1plex Go dl sleep 1plex Lie dl -Fut 1plex Say -dl/3sgM
   SU Pres SU SU Irr SU SU Perf SU/IO
   plane flight, we'll have a sleep', we told him.

6. key-nyine yerr-ngini -handbag-gumu yerr-wedimuy
   -FOC Tr -KIND -SEMLI Tr -small
   cl cl
   He had a small thing like a handbag,
That whitefella picked it up and searched through it for the key to our room.

He gave him (Warrigal) one, and he gave one to me.

'Come on !', he told us, Steve that is, 'I'll show you those rooms'.

He took us up, 'I'm sleeping here, this is my room',

he told me. 'And this is your's, that key you're holding is for this door',

told me. Then he showed him (Warrigal).

'This one's your's. Everything's ready, your beds, blankets and sheets.'

'I'll show you the bathroom', so we put down our suitcases.

'Come on', he told us, 'I'll show you the bathroom'.
He took us up to the bathroom, and said to us,

'If you come in here for a piss or to wash, don't leave the door unlocked!

This is both a women's and a men's bathroom.

If a woman was to come in, she'd see that the lock was engaged, and she would realise then that there is a man inside the bathroom'.

He took us back to our rooms and we laid down then.

I slept with my boots on for fear of getting cold feet.
We slept the whole night through. Steve arose early and came and woke us up. He knocked on my door first.

I got up and opened the door. 'It's breakfast now, get up!'

He told me. 'Wash your face and comb your hair!'.

He woke Warrigal, I went into the shower room

and washed my face and combed my hair.

Warrigal had done the same - washed his face and combed his hair.

'Have you finished?' he asked us. 'Yes' we told him.

'Come on, I'll take you down to breakfast'. He took us down to the room

where the white men and women eat breakfast, and took us in.
'Have a seat now', so we went and sat on the chairs.

There was a table already laid out with food on it. 'Take anything you like,

those women over there (kitchen servers) can't tell you 'take this or that!'

they can't tell you that! Take any food that you want. If there's your

favourite food here, then take that!

If you like the kind that has meat with it, then take those breakfasts.

that have meat in them', he told us.

'Are you sure they can't stop me?' I asked him. 'No, its fine'. 'OK' I told him.

'We ate it all up, finished it right off, and had coffee. "All finished ?' he asked us.

We ate it all up, finished it right off, and had coffee. "All finished ?" he asked us.

'Yes, we're finished'. 'Right then, let's go !' said Alan,
Steve, ngaddi -tye mudiga-nide, minbe mudiga, firr-ngityirr, 3sgM-ASSOC-SAME 1plexGo-Past car -LOC Neg car foot-ground Pro SU Plmp
and Steve too. We left in the car...no not the car, on foot.

fIRR-ngityirr ngamban-nime-pe, ngawam-nirrki-pe meny -ngirrki, foot-ground 1pImpGo-Past -pl -Fut 1sgTake -2dl -Fut 3sgSay -ldlex
SU Irr SU Irr DO SU Perf IO
'Let's go on foot, I'll show you the way!', he told us.

ngerrmen'ge-tasat, ngaddi -tye, nganniny-mentyi-tyerr peyi-pei
1pImpArrive-emerge 1pImpGo-Past 1pImpGo -neck -stop in -THITH
SU Perf SU Plmp SU Perf =wait place
We came out, and went and waited at the place for

yerr-steel-one deyedirr dem -baty,
Tr - hip 3sgHands-hold
cl = wheel SU Pres
one of those things having steel wheels (tram).

yerr-nyin -nide-nyine nganniny-madi-wap,
Tr -ANA-LOC-FOC 1pImp Go -chest -sit
cl SU Perf
We climbed inside that thing.

warrmadi yarrene-madi-wap- Ø move-gumu-merrendi, meny -ngirrki,
quick 2dlGo -chest-sit -IMP -TRY -LEST 3sgSay -ldlex
SU Irr SU Perf IO
'Climb in quickly before it moves off!', he told us.

yerrmigi -kerrety-pe yaga ganggi, meny -ngirrki,
2plHands dl-grasp -Fut DEM high 3sgSay -ldlex
SU Irr SU Perf IO
'Hold onto this (handrail) up top here!', he told us.

nganninygi-madi-wap, ngiddingegu -tyalak -tye,
1pImpGo dl -chest-sit 1pImpStand dl-upright-Past
SU Perf SU Plmp SU
We climbed on and had to stand up.

darany -bIRR -wURRU watypela mityity seat-nide-mirri,
3sgPokeDtr-arrest-UNSAT whitefella white -LOC-EMPH
SU Perf =congested woman
It was full up, with men and women on every seat.

nem Lirrga deminy -tip yerr-nyinnin deme nem, ngayi,
3sgM dance 3sgHands-grab Tr -ANA hand 3sgM 1sg
PRO style SU Perf cl PRO PRO
Warrigal grabbed hold of that thing with his hand, and I did too.
The tram took off straightaway, and we eventually got to that place.

It came to a halt, 'Get out quick!', he told us, so we jumped off,

We set off on foot,

and kept going til (we came to a fountain where) they throw money

People throw silver coins into the water'.

'Gee!' we said to him, 'there's a lot of money here'. 'Sure is!' he told us.

We kept going 'til we came to that building. He opened the door,

and we went in. We thought to ourselves 'what a lot of whitefellas !!'.

They must have all been sitting there already, we hadn't expected it. Anyway we went on in.
'Are you two OK ?, you're not nervous are you ?' he asked us.

'We're fine'. 'Right then how about you sit in these chairs'.

Then all these unknown whitefellas were coming up to us,

and they shook us by the hand. There were Asians, people from foreign countries,

and women too, they all shook us by the hand. They'd never before

seen Aborigines, they saw us for the first time !

'This isn't embarrassing you, is it ?', Alan asked us.

'We're fine', we told him. We sat around awhile. 'I just have to go up here for a minute'.

Alan told us. 'I have a little business to arrange, you two stay here !'.

We sat around, and that woman who came here to Peppimenarti,
men'geny-ngirrk, giringgu dinyirri-ngirrk yedi -tye, hello meny-ngirrk, 3sgArrive-1dlex 3plSit dl 3sgSee -1dlex 3sgGo-Past 3sgSay-1dlex SU Perf IO SU Pres SU SU Perf DO SU Pimp SU Perf IO she came up to us. She'd seen us sitting there and came over and said hello.

hello ngirrminy-ngerr, Heather ngayim piwari, ngerrminygu -ba -walal 1plSay -dl/3sgF 3sgF name 1plexHands dl-arm-shake SU Perf SU/IO PRO SU Perf SU redup 'Hello' we said to her, Heather her name is, and we shook her by the hand.

Alan kide meny -ngirrk, wun -ambirri gaganim, where 3sgSay -1dlex there-ahead 3sgGo SU Perf IO SU Pres 'Where's Alan ?', she asked us. 'He's up there having a quick word

ngan'gi-nuwurr diny-tyerrakul, yi meny-ngirrk, yeniny-ngirrk-mi-wap word -a little 3sgSit-talk yes 3sgSay-1dlex 3sgGo-1dlex -Val-sit while SU Perf SU Perf IO SU Perf DO inc with someone'. 'Oh alright', she said to us. She sat down next to us,

ngan'gi-nyine nginne -tyerrakul-nime-tye, ngerram -ngerr -yilil -tye, word -FOC 1dlexSit-talk -tr -Past 1plexMouth-dl/3sgF-tell -Past SU Pimp SU SU Pimp SU/IO stories and the three of us chatted and we told her stories.

nyinyi kide yirim ngarrinygi-tyerr -pu, Canberra ngirim, 2sg where 2sgSit 1plexPoke-mouth-ask 1sgSit PRO SU Perf SU Pres 'Where are you living ?', we asked her. 'I'm living in Canberra.

Alan yaga pag -endi ring up-meny -ngiti Canberra, ngiminy-ne DEM HITH-SAME phone -3sgDo -1sg 1sgSay -3sg SU Perf IO SU Perf IO That Alan rang me up in Canberra, and I told him that

yu yibe meet 'im up-ngumu-nirr-pe Melbourne, detyeri-pefi yes later -1sgDo -2pl -Fut ear -THITH SU Irr IO = idea/plan yes I would be meeting up with you in Melbourne, I'd had this plan

ngeme -baty-tye -ngini, meny -ngirrk, yi ngiminy-nge, 1sgHands-hold-Past-1sgSit 3sgSay -1dlex yes 1sgSay -3sgF SU Pimp SU Pimp SU Perf IO SU Perf IO for a while', she told us. 'Yes', we said to her.

nginni -pefi-tye gaganiny-garrmadi nem Alan, ma meny -ngirrk 1plexSit-DUR-Past 3sgGo -approach 3sgM HORT 3sgSay -1dlex SU Pimp SU Perf PRO SU Perf IO We sat around, then Alan approached us. 'Let's go !' he said.
Let's go through to that other room. There was a huge number of whitefellas in that room, the room...the chairs, were full up.

We went on in and came to a halt.

We went on in and came to a halt.

Steve will take you up there. He took us up to the top.

Steve will take you up there. He took us up to the top.

We'll sit up here and listen to Alan.

We'll sit up here and listen to Alan.

Then Alan was giving his talk.

Then Alan was giving his talk.

On a video. You'll see women's Walamarra dancing, the use of didjeridus,
mipurr wangga, yerr-mentyi yirri -tyeri-baty -pe yerr-nyin -mirri
man dance Tr -throat 2plSit-ear -hold-Fut Tr - ANA-EMPH
style cl =song SU Irr cl
and men's Wangga dancing. The songs you'll be hearing (on the video), these same ones

wiri -dada-pe wa-werrfe girim Warrigal Martin, meny,
3sgSit-sing -Fut M-mid 3sgSit 3sgSay
SU Irr cl distant SU Pres SU Perf
will be sung live by that man over there -Martin Warrigal', he told them,

kanbi Robert Daly wiri -fifi -pe,
didjeridu 3sgSit -blow-Fut
SU Irr redup
'and Robert Daly will play the didjeridu'.

wa-wedimuy pey-endi yinnyirri-pe dini-purrpurrk-tye yerr-nyin video-nide,
M-little one in-SAME 2plSee -Fut 3sgSit-dance -Past Tr -ANA -LOC
cl place SU Irr SU Pimp cl
On the video you'll also see a small boy who was dancing as well.

yinnyirri-pe wa-wedi detyeri-werre yenim,
2plSee -Fut M -little ear -ASSOC 3sgGo
SU Irr cl SU Pres
You'll see that he knows how to dance.

ngatya nem-ninggi dangim -fi -mi-tyatit -yenim, meny -burr,
father 3sgM-AGENT 3sgPoke-Mp-Val-place -3sgGo 3sgSay -3pl
PRO SU Pres redup SU Pres SU Perf IO
His father is teaching him to do it', he told them.

yerr-nyin-nyine video cassette dam -burr-fi -tyat, winy -me -purrk-ambirri
Tr -ANA-FOC 3sgPoke-3pl -Mp-place 3sgSit-hand-clap -first
cl SU Perf IO SU Perf
he turned on that video thing for them... actually they clapped first,

watypela mityity, nyin -nimbi dam -burr-fi -tyat,
whitefella white ANA-SOURCE 3sgPoke-3pl -Mp-place
woman SU Perf IO
all those whitefellas, and then he turned it on,

winnyirri nginifiny-nyine, dam -purrket, wirriny-me -purrk
3pl See true -FOC 3sgPoke-finish 3plSit -hands-clap
SU Irr SU Perf SU Perf
and they really watched it. Then he switched it off and they all clapped.

ba meny-ngirri, ngambani-nime-pe, yirrigu -dada-nginifiny-nyine-pe,
HORT3sgSay-1dlex 1plincGo -pl -Fut 2plSit dl-sing -true -FOC -Fut
SU Perf IO SU Irr SU SU Irr SU
'Reight', he said to us, 'let's go, sing with all you've got !,
They'll all be listening to you!'. We thought to ourselves 'what a lot of whitefellas!'.

They had already filled the entire room, some were sitting,

They brought on some water for me, and, with a jug, filled up

He finished speaking, 'that's the end', he told them, and they all clapped him.

'Hey, come here!', he called to that other whitefella.

'Let's drag out that mat and we'll set it out flat
for them to sit on. They dragged it out, lay it down, and called out to us,

"Come on over here!" he told us, so we went over and sat down.

I wet the inside of the didjeridu. 'Are you guys ready?', he asked us.

"Yes'. 'OK then, you can start playing straightaway!', he told me.

all those white men and women applauded us.

That's not enough yet, keep going!'. Well, I don't know how many songs I played.

Annoyingly, my beard kept getting caught between my lips and the didjeridu.

Annoyingly, my beard kept getting caught between my lips and the didjeridu.

'Keep going!', Alan said to us, so Warrigal launched into another one.
After that (Alan) called to us two...no he didn't... he said to Steve,

'Take these two outside for a bit. I'm going to project this other (video)

onto the big thing (screen) for them (audience), and this video I've got here has
(images of) a deceased person on it'.

He explained to them (audience), 'If they were to watch (this video), they'd feel
sorry for their country,

He took us outside, and we hung around there for a bit, while he projected

(the film) and they watched Syanba, Wangga and Walamarra. We could still
overhear it,

and when he'd finished we went back in, going over to
ngerrmen'geny-ne, wakay -nyine meny -ngirrki, Heather meny -nge,
1plexArrive -3sgM finished-FOC 3sgSay-1dlex 3sgSay-3sgF
SU Perf IO SU Perf IO SU Perf IO
where (Alan) was. 'We're finished now!', he told us. Then he spoke to
Heather,
e wa-wurrkama yenim-wurrkama Alan nem watypela wa-dityunggurr,
and M-work 3sgGo -work 3sgM whitefella M-short
cl SU Perf PRO cl
and to that employee of Alan's, a whitefella, a short one.
gagu ya -wurrki-dudu-pe, yawam -burrki-pe, ngayi ngan'gi ngani-pe
animal 2sgPoke-3dl -show-Fut 2sgTake-3dl -Fut 1sg talk 1sgGo-Fut
generic SU Irr IO SU Irr DO PRO SU Irr
'Show them the animals!, take them (to the zoo). I've yet to give my
conference paper'.
ba meny -ngirrki mityity nyin-ninggi Heather, ngadde -nime-tye outside,
HORT 3sgSay-1dlex white ANA-AGENT 1dlexGo -tr -Past
SU Perf IO woman SU Pimp SU
'Let's go!', she said to us... that white woman... Heather. So the three of us
went outside.
Alan-ninggi meny -nge, wun-nimbi yarra -fi -pal -pe,
-AGENT 3sgSay -3sgF there-SOURCE 2plPokeDtr-Mp-return-Fut
SU Perf IO SU Perf IO
Alan said to her, 'When you come back from there,
yawam -burrki-pe -yani, yudu -wurrki-mi -wul -pe kinyi,
2sgTake-3dl -Fut-2sgGo 2sgShove-3dl -Val-return-Fut here
SU Irr DO SU Irr SU Irr DO
bring these two blokes with you, and return them to this place here.
kine yerrmen'ge-ngiti-pe, yu meny -ne, ba meny -ngirrki.
this 2plArrive -1sg -Fut yes 3sgSay -3sgM HORT 3sgSay -1dlex
place SU Irr IO SU Perf IO SU Perf IO
This is where you'll find me'. 'OK!'; she told him. 'Let's go !', she said to us.
ngadde -tye outside, ngiddinge -ngidi-tye taxi gaganim, taxi ngermminy -tip,
1dlexGo-Past 1plexStand-wait -Past 3sgGo 1plexHands-grab
SU Pimp SU Pimp SU Perf SU Perf
We went outside, and waited around for a taxi to come. We caught one,
a gagu nyin ngan-warrim-fi -tyityuk-wannim, amatyi
finally animal ANA LOC -3plPoke-Mp-place -3plGo kangaroo
generic SU Perf redup SU Perf
and (went) to the place where they keep those animals - kangaroos
gagu wirritywirrity awanggi karrwakkarrwak gagu mentyinimba budengggu
animal lorikeet crow kookaburra animal darter bird diving shag
generic generic
rainbow lorikeets, crows, kookaburras, Darter birds, diving shags,
Then there were pygmy geese, bandicoots, goannas, wedge-tailed eagles and cats.

The parrots living here in our country are only small, but the rainbow lorikeets I saw in your country are huge.

I wonder where they're from. They're the same animal (species), their tails are identical, and their beaks and bodies are yellow just like the ones that we have.

Next we went to the butterfly (enclosure), and we went inside.

Those butterflies just climbed all over us.

I saw butterflies from this place and all different other kinds. Some from our country,
and others from foreign lands. Those whitefellas had thousands of them!

We came outside and wandered along. 'Hey, would you guys like a beer?'

that white woman asked us. 'Sure!', so we went over,

went into (a bar), and went over and sat up (on stools).

'Would you two like some food?'. 'No, we're actually still full up from

all the food we had while we were wandering around back there before.

We'll just drink a beer', we two told her.

She got the beers, she picked up one for me, (one for) him, and (one for) that

whitefella of Alan's, his employee. We drank them up...finished.

whitefella of Alan's, his employee. We drank them up...finished.

'Let's go over this way', she told us. So, on the move again,
we looked about at a few animals, until eventually I was feeling sore,

in my knees, from all the walking. So I said to Heather, 'My limbs feel heavy'.

Yeah me too!', Warrigal told me.

'Suggest to her that we all go home now!'

So I said to Heather, 'How about you take us back now'.
This short text has been included to demonstrate the type of dialect switching that is common in the speech of elder Ngan'giwumirri and Ngan'gikurunggurr people. Molly is of Ngan'gikurunggurr descent, but was married to a Ngan'giwumirri man for many years. At Nauiyu Nambiyu (Daly River Mission) where she now lives, Molly speaks predominantly Ngan'gikurunggurr but as the text below shows, her speech contains a mixture of Ngan'giwumirri and Ngan'gikurunggurr. To demonstrate this switching I have marked those forms that are specifically flagged as being Ngan'giwumirri by outlining them. Likewise specifically Ngan'gikurunggurr forms have been underlined. I have only attempted here to mark those forms that are lexically or morphologically distinct. No attempt has been made to mark phonological (particularly stress) patterns that are unique to either dialect.

1 wa-wulmen dede wuni Ridgedale-nide ngadde -wapup,
M-oldman camp there -LOC IdlexGo -sit
cl SU Pimp redup
I was living with my husband over at Ridgedale's farm.

2 ngadde -fili kak -nyine ngadde peyik-werri yerr-wasyanderri,
1IdlexGo-roll in -FOC 1IdlexGo bag -ASSOC Tr -hessian bag
SU Pimp motion SU Pimp cl
We used to wander around with a bag, a hessian sack

3 yerr-weyi -ngini ngadde -lali, nganne -gatit wakay,
Tr -Strychnine-PURP 1IdlexGo-around 1IdlexGo -pick finished
cl tree SU PImp SU PImp up
for (the fruit of) Strychnine trees, we wandered around and gathered them up.

4 fill 'im up - ngirrmegu e nguddenigi -wul.
-1plexDo dl and 1plexShoveDtrD dl-return
SU PImpSU SU PImp SU
We filled them up and then came back.

5 nguddenigi -wul dede-nide wembem-nide,
1plexShoveDtrD dl-return camp-LOC house -LOC
SU PImp SU
We came back to (Ridgedale's) camp, to the farmhouse.

6 miyi nyin mi-damuy yerr-weyi ngan'gi marrgu-ninggi
plant ANA Pl -eye Tr -Strychnine word new -AGENT
food cl =seed/fruit cl tree = message
News (about the demand for) that Strychnine fruit
menggeny-taazh,  
3sgArrive -emerge  
SU Perf  
had come out.

nyin -kana ngerrme -pul -ngaddi,  
ANA-FOC 1plexHands-wash-1plexGo  
SU Plmp  SU Plmp  
In response to that news we used to wash (the fruit),

winnyerreem falmi ngerrme -pul wakay,  
3plSeeDtr women 1plexHands-wash finished  
SU Pres  SU Plmp  
all us women, we used to wash them.

mi-garrfuru ngunnu -wuty, miyi damuy nгинifiny-napa,  
Pl-skin 1plexSlash-discard plant eye true -JUST  
cl SU Plmp food  
We would throw away the skin, just (keeping) the fleshy fruit part.

fill 'im up-ngirrme-nyine peyik-nide wakay,  
-1plexDo-FOC bag -LOC finished.  
SU Plmp  
We packed these into bags,

e dani -tyern -batybity,  
and 3sgPoke-mouth-hold  
SU Plmp =sew  
and he sewed them up,

wa-wulmen-ninggi Ridgedale dani -tyern -batybity wakay,  
M-old man-AGENT 3sgPoke-mouth-hold finished  
cl SU Plmp =sew  
old man Ridgedale sewed them shut.

kak -nyine yentyi wunu ngan-tawun e sell 'im-meyi,  
in -FOC 2sgTake there LOC -Darwin and -3sgDo  
motion SU Plmp  
Then he used to take them into Darwin and sell them.

yerr-nyin tyagan-nawa -ngini,  
Tr -ANA what -INDEF-PURP  
cl  
I wonder what that stuff was for,

ep medicine-wanne -ngini-ne, wakay -kana,  
perhaps -ASSOC-PURP-SUPP finished-FOC  
perhaps it was something to do with medicine. OK thats it!
Escape from Fanny Bay Gaol

Speaker - Patrick Tyabada
Recorded at Peppimenarti in September 1988
(AIAS Tape 10 REID 1988)

1  
tyamirri, mipurr wunggume Fannie Bay-nimbi diny -fel,  
discourse man one -SOURCE 3sgSit -bounce  
brack SU Perf  
Well, this certain bloke escaped from Fannie Bay Gaol.

2  
yeniny -pap perrik exercise yard-nide,  
3sgGo -climb fence -LOC SU Perf  
by climbing the fence in the exercise yard !

3  
yedi -lali -tye, yerr-nyin dinyirri perrik, ep, meny, ngana -felfil,  
3sgGo-around-Past Tr -ANA 3sgSee fence GUESS 3sgSay 1sgFeet-bounce  
SU Pimp cl SU Perf SUPerf SU Irr redup  
He'd been wandering around, sizing up that fence, thinking "maybe I could run it".

4  
dagum -felfil nyin-nimbi diny -fel wakay,  
3sgFeet-bounce ANA-SOURCE 3sgSit-bounce finished SU Perf redup SU Perf  
He raced up, and just jumped right out of there !

5  
pey-endi wa-mumu wunni -ne -fifili -tye werrminy-tip,  
in -SAME M -taboo 3plSlash-3sgM-search-Past 3plHands-grab place cl =police SU PImpl IO redup SU Perf  
The police searched around that place for him, and re-arrested him,

6  
wuddum -mi-wul court-nide, judge nyin meny -ne,  
3plShove-Val-return -LOC ANA 3sgSay -3sgM SU Perf SU Perf IO  
and brought him back to the court. He said to the judge...

7  
ba .... dam -tyerr -pu judge-ninggi,  
CORRECT 3sgPoke-mouth-ask -AGENT SU Perf  
no I mean... the judge asked him,

8  
ityi -yiminy-pefi yiriny -fel, meny -ne,  
what-2sgDo -THITH 2sgSit -bounce 3sgSay -3sgM SU Perf SU Perf SU Perf IO  
"How did you jump over ?".
441

9 tyepe nganam-felfil ngiriny-fel perrik nyinnin,
JUST 1sgFeet -bounce 1sgSit -bounce fence ANA
SU Perf redup SU Perf
"I just ran up and jumped the fence".

10 minbe-wurru gintyi-fel, meny-ne, nginifiny ngumum-bi,
Neg -UNSATIS 3sgSit-bounce 3sgSay-3sgM true 1sgSay -2sg
SU Irm SU Perf IO SU Perf IO
"You couldn't possibly have jumped it!". "I'm telling you the truth".

11 ngudi -nyi-mi-wul -pe wun-endi Fannie Bay,
1sgShove-2sg-Val-return-Fut there-SAME
SU Irm DO
"Well I'm taking you back to Fannie Bay Gaol,".

12 ya -ngirr-du -pe dede nyin ngani-kide yiriny -fel,
2sgPoke-1plex-touch-Fut place ANA KIND-how 2sgSit -bounce
SU Irm DO =show SU Perf
and you can show us there just how you escaped!".

13 warrgantyi-tye Fannie Bay exercise yard-nide, kide -pefi yiriny-fel,
2plTake -Past -LOC where-THITH 2sgSit -bounce
SU Pimp SU Perf
So they took him back to the exercise yard at Fannie bay Gaol. "Where'd you
jump out?",

14 wirrminy-ne, kinyi-pefi, ityi -yumu-gumu, wirrminy-ne,
3plSay -3sgM here -THITH what-2sgDo-TRY 3plSay -3sgM
SU Perf IO SU Irm SU Perf IO
they asked him. "(I went over) here". "Try doing it for us?", they told him.

15 dagum -felfil, diny -fel madiyeninggi nyin wakay,
3sgFeet -bounce 3sgSit -bounce other side ANA finished
SU Perf redup SU Perf
So he ran up and jumped straight over to the other side again,

16 mumba tyamennapa darany -fi -lirr,
track DISMISS 3sgPokeDtr-Mp-disappear
SU Perf
and (as they'd neglected to post a guard on the outside) he hit the road for
good.

17 minbe-nyine-tye wanna-garri-pat,
Neg -FOC -Past 3plFeet-leg -catch
SU Irm up
They never caught up with him!
Pelican's Egg
Speaker - Robert Daly
Recorded at Peppimenarti in September 1986
(AIAS Reid NgW Tape 10 Text 3 1986)

1 ngagantyi-tye nem kinyi Meli Pikinduwung-pefi
   1sgTake -Past 3sgM this personal placename -THITH
   SU Plmp PRO name
I was taking this man, Meli, towards Pikinduwung.

2 ngannigi -dirr -ket-tye -ngadde, gagu pigipigi dagum-felfil
   1dlexFeet-teeth-cut-Past 1dlexGo animal pig 3sgFeet-bounce
   SU Plmp SU Plmp generic SU Perf redup
We were travelling along the bank, when we saw a pig

3 kuderri -nimbi -pagu, nginnyirrigu,
   billabong-SOURCE-HITH 1plexSee dl
   SU Perf SU
race out from the billabong.

4 kinyi-pefi ngambani-pe, ngiminy-ne, ngadde-tye,
   this -THITH 1dlexGo -Fut 1sgSay -3sgM 1dlexGo-Past
   SU Irr SU Perf IO SU Plmp
"Lets go this way" I told him, so we kept going,

5 nganniny-karrbu ba -wedi, ngadde-tye Malfiyin nganninggu-dirr -tye,
   1dlexGo-descend arm-small 1dlexGo-Past place 1plexGo dl -teeth-Past
   SU Perf SU Plmp name SU Perf SU
crossed a small creek, and kept going, travelling along the bank to Malfiyin.

6 Malfiyin kine, ngiminy-ne, dede ngayi kine,
   place this 1sgSay -3sgM country 1sg this
   name place SU Perf IO PRO place
"This place here", I explained to him, "is my estate country".

7 kuru nuwurr ngimbi -kuduk, wanin -ngirrki-minyirr,
   water brief 1dlexIncSit-drink 3sgHeat-1dlex -knock
   SU Irr SU Perf DO out
We had a quick drink, as we both felt knocked out by the heat.

8 kuru nginne -kukuduk-tye wakay, ngambani-pe wunu-pefi,
   water 1dlexIncSit-drink -Past finished 1dlexIncGo -Fut there -THITH
   SU Plmp redup SU Irr
When we'd finished drinking I said to him, "Let's go over that way."
I want to show you Ancestral Pelican's egg.

We'll take the car over and park it up ahead there in the shade of that billygoat plum tree, we'll leave it".

So we climbed back in and drove over to the shade.

"Leave the car here! We don't have far to go.

I'll show it to you!". So we wandered over to my kids and I said to them,"You mob stay here, us two will go on ahead".

We went there. "This is the place where Ancestral Pelican lives", I explained to him.

"Oh really ?", he, Meli, replied to me.
18 gagu kinyi yinyinggin, ngiminy-ne, fepi wunu yinyinggin, animal this 2sgSee 1sgSay -3sgM hill there 2sgSee generic SU Pres SU Perf IO SU Perf "See this Ancestor here?", I said to him, "and see that hill over there?

19 nyin -pagu -nimbi yedi -tye darrwa-werre ANA-HITH-SOURCE 3sgGo-Past raft -ASSOC SU Pimp Well she (Pelican) came down from that hill on a raft,

20 wandirrk-ninggi darani -titidi-pagu -tye -yedi, pole -INSTR 3sgPokeDtr -push-HITH-Past-3sgGo SU Pimp redup SU Pimp pushing herself along with a pole.

21 yedi -tye wunu, Yambiying yenyiny-palat-pagu, ngiminy-ne, 3sgGo-Past there place 3sgGo -pass -HITH 1sgSay -3sgM SU Pimp name SU Perf through SU Perf IO She travelled down and passed through Yambiying", I told him.

22 yedi -tye kinyi, putput yedi -tye, ngiminy-ne, 3sgGo-Past here pregnant 3sgGo-Past 1sgSay -3sgM SU Pimp redup SU Pimp SU Perf IO And when she reached here she was heavily pregnant", I told him.

23 kuderri wun -ne -tye wiri -palak Pikinduwung, ngiminy-ne, billabong there-INTENT-Past 3sgSit-lay place name 1sgSay -3sgM SU Irr SU Perf IO It was her intention to lay her egg further on at the billabong at Pikinduwung", I explained to him.

24 epe amurru nyin-ninggi dam -nge -di, BUT egg ANA-AGENT 3sgPoke-3sgF-cry SU Perf IO "But that egg was (bearing down on her and) making her cry.

25 gagu wur-malirrr nyin burra tyepe dede kinyi dinyirri-mi -yubu, animal F -female ANA pelican JUST camp here 3sgSee -Val-good generic cl SU Perf That Ancestral Pelican Woman only just had time to observe that this was a suitable place",

26 ngiminy-ne, kine ngani-wap, ngi -palak-pe amurru, meny, wakay, 1sgSay -3sgM this 1sgGo-sit 1sgSit-lay -Fut egg 3sgThink finished SU Perf IO place SU Irr SU Irr SU Perf I told him. "I'll camp here and lay my egg", she thought. That's it.
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