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PREFACE

These Work Papers are being produced in two series by the Summer Institute of Linguistics, Australian Aborigines Branch, Inc. in order to make results of SIL research in Australia more widely available. Series A includes technical papers on linguistic or anthropological analysis and description, or on literacy research. Series B contains material suitable for a broader audience, including the lay audience for which it is often designed, such as language learning lessons and dictionaries.

Both series include both reports on current research and on past research projects. Some papers by other than SIL members are included, although most are by SIL field workers. The majority of material concerns linguistic matters, although related fields such as anthropology and education are also included.

Because of the preliminary nature of most of the material to appear in the Work Papers, these volumes are being circulated on a limited basis. It is hoped that their contents will prove of interest to those concerned with linguistics in Australia, and that comment on their contents will be forthcoming from the readers. Papers should not be reproduced without the authors' consent, nor cited without due reference to their preliminary status.

Views expressed by the authors are not necessarily those of SIL.

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INTRODUCTION TO SERIES B VOLUME 8

SIL is primarily an applied-linguistics organisation, with goals in translation and literacy. As such, it cannot ignore the cultural context of language, particularly since SIL fieldworkers carry out their research and goals in an ongoing language-culture situation. For these reasons it is appropriate that SIL-AAB personnel share some ideas and insights in a 'language-culture' work papers volume. We are also pleased to include two papers by non-SIL contributors, Judith Stokes and John Harris, both of whom have had much experience in the Aboriginal language-culture context.

In the first paper Jean Kirton shares insights she has gained during the dual process of learning Yanyuwa language and culture at Borroloola. Though not claiming that she is expressing an emic (insider's) viewpoint, Jean has been careful to check out her observations and tentative conclusions with a Yanyuwa speaker, Nero Timothy. In exploring the interrelationships between language and culture, there are always the dangers of stating the obvious and/or making unwarranted statements of causation. Jean has aimed to underscore the importance of relating language study to the local culture, demonstrating that linguistic data can be better understood when its cultural context is known.

Long before the use of such interdisciplinary labels as 'cognitive anthropology', 'sociolinguistics' and 'anthropological linguistics', both linguists and anthropologists were interested in kinship terminology as an interface of language and culture. Helen Geytenbeek's paper on Nyangumarta kinship has grown out of her need as a field linguist to speak and act correctly in the Nyangumarta community. Helen shares the view of Nyangumarta kinship which she has had to learn—that of a female member of the group.

Cross-cultural education in mathematics has often been a frustrating experience for both teachers and students. Part of the problem has been the lack of knowledge of, or appreciation for, non-Western approaches to mathematics. Judith Stokes' paper is an extensive description of Anindilyakwa mathematical language and its cultural context which refutes popular generalisations about the limited counting ability of Aboriginal people. Judith is to be commended for the amount of data she has collected and for her efforts to gain due recognition for Anindilyakwa mathematical language and concepts.

John Harris believes that Judith's paper is 'the first substantial discussion of the mathematical concepts of an Aboriginal group which has ever been published', and he finds fault with linguists and anthro-

pologists who have had access to such data for other Aboriginal groups but for various reasons have not made it known. Their neglect has allowed prejudiced views of Aboriginal mathematics as 'primitive' to continue unchecked, often with the accompanying view that 'primitive mathematics' is primary evidence of cultural inferiority. John's paper outlines how biased statements about Aboriginal mathematical abilities have developed and continued to the present day, and he cites data from several Aboriginal languages to correct such biases.

However, a deeper understanding of Aboriginal mathematics does not mean that differences between Western and Aboriginal approaches to mathematics are henceforth discounted. As Barbara Sayers' paper recognises, there are still frustrations and problems for many Aboriginal children learning mathematics in school. Barbara believes that the 'problems' are primarily cultural rather than linguistic: a hunting and gathering people have no need for highly developed and precise mathematical calculations and therefore should not be expected to have developed them. The perceptual and cognitive skills will be in different areas more appropriate to a hunting and gathering way of life. Barbara offers several suggestions to those teaching mathematics to Aboriginal children, suggestions which take into account the concepts and teaching styles of Aboriginal culture. Though their approaches are quite different, both John and Barbara are concerned that Western educators know more about Aboriginal culture and that they accept Aboriginal mathematical concepts and language on their own merit rather than judging them from a Western ethnocentric viewpoint.

As this introduction has indicated, the first five work papers in this volume illustrate the interdependence of language and culture. The reader will have to judge how much the final paper illustrates that same interdependence. It is a partial report of a research project undertaken to find out to what extent the development of colour terminology is culturally determined. The data gathered from five Aboriginal languages by SIL fieldworkers are inconclusive as to the relationship between culture and colour vocabulary, but they certainly illustrate the complexity of language-culture research.

Susanne K. Hargrave
Volume Editor

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A DESCRIPTION OF THE MATHEMATICAL CONCEPTS
OF GROOTE EYLANDT ABORIGINES

Judith Stokes

0. INTRODUCTION

This paper is the result of a number of years experience in education and linguistics on Groote Eylandt. During my teaching years, from 1952 to 1966, I became aware of the tremendous problems facing Aboriginal pupils as they struggled with concepts foreign to their culture, particularly in areas such as mathematics. From 1967 on, while engaged in linguistic studies, I have found many of those problems highlighted or explained.

In this paper I have attempted to outline some of the concepts relating to Aboriginal world view in order to help overcome the difficulties in teaching mathematics and related subjects. Much more detail could be included which would be relevant to those actually involved in teaching Groote Eylandt children; however it is hoped that this paper will also be useful to teachers in other Aboriginal schools.

The Anindilyakwa examples are set out on the left hand pages to enable people to read this material quickly. References to these numbered examples are given by raised numbers in the text on the right hand pages. The examples themselves have been simplified in terms of morpheme analysis to make them more readable to non-linguists, and technical terms have been reduced to a minimum. In many examples, the pronouns in their free form which would normally occur but which are not needed to make sense have not been included for the sake of brevity. For instance in example 32 *kilawurradinama* actually means both 'I will return' and 'you will return'. It

should also be noted that the suffix *-ma* ~ *-murra* (statement of fact) normally occurs when sentences are removed from context and this has not always been added — again, for brevity's sake. This means that examples in this paper may need to be expanded for use in conversation. (For more information on Anindilyakwa phonology see Stokes 1981.)

Groote Eylandt is situated in the west of the Gulf of Carpentaria. There are about 900 Groote Eylandters living in two communities: at Angurugu and at Umbakumba. Anindilyakwa is the language spoken in both places. I have had a close association with Aborigines in various situations ranging from the more formal teaching and learning situations to the less formal day to day contact in the settled community of Angurugu and camping out in traditional Aboriginal life-style. Many of the examples in this paper have come directly from conversations heard and observations made during these experiences.

It must be realised that the way Aborigines see things is often very different from the way non-Aborigines see them. Two groups of people, with very different backgrounds, life-styles and needs, focus on different aspects of the same phenomenon. All groups of people have basic concepts on which to build. Their ideas develop differently along different lines, having different patterns according to those things they recognise as important. When a technological society, which depends heavily on literacy and numeracy skills, intrudes on a non-literate society, adaptation must take place, together with adoption of new ideas. The Western-educated person is inclined to focus attention on those areas of the school for which the Aboriginal language seems inadequate. This is often because the Aboriginal and Western cultures are so different that it is neither appropriate nor possible to take the Western syllabus as it is and seek to translate it from English into the Aboriginal language. When the Westerner discards his own world view and looks through Aboriginal eyes he learns to appreciate the fact that there is indeed a considerable basis of knowledge on which to build. However, the traditional order in which concept development takes place in Aboriginal society does not follow the traditional Western order.

This paper attempts to highlight and explain many of the more important differences between Aboriginal and Western thought with particular reference to those concepts most frequently encountered in school. It is hoped that it will assist curriculum developers in drawing from realistic situations for mathematical and related examples.

1 *wurr-abiya*karbiya *war-nungkwarba* *nabuki-likenuma* *angerriba*
 plural-three plural-man they.three-went over.there
 'Three men went over there.'

*ningi-lirra*ki-*rringka* *alakina-k-ya* *jurra ambilyuma-kiya*
 I-two-saw those.two-two book two-two
 'I saw those two books.'

2 <i>nenungkwarba</i>	man (masculine singular)
{ <i>didarringka</i>	{ woman (feminine singular) plus
{ <i>duwalya</i>	{ curlew ~ curlews
	(non-human it <i>d</i> sing ~ plur)
<i>wunenungkwarba</i>	two men (masculine dual)
<i>wurringidarringka</i>	two women (feminine dual)
{ <i>wurrubukenungkwarba</i>	{ three men (masculine trial)
{ <i>wurrubukidarringka</i>	{ three women (feminine trial)
{ <i>warningkwarba</i>	{ men (masculine plural)
{ <i>wurridarringka</i>	{ women (feminine plural)
{ <i>wurruwarda</i>	{ dog ~ dogs
	(non-human it <i>w</i> sing ~ plur)
<i>yiburada</i>	wallaby ~ wallabies
	(non-human it <i>y</i> sing ~ plur)
<i>malamukwa</i>	canoe ~ canoes
	(non-human it <i>m</i> sing ~ plur)
<i>akwalya</i>	fish (non-human it <i>a</i> sing ~ plur)

- N.B. 1. Brackets enclose members of the same noun class; italicised letters indicate particular Anindilyakwa noun classes, e.g. the *d* noun class.
2. The noun class form *wurrubuk-* 'trial human nouns' is not used as commonly as the dual and plural forms. It is more common to include trial nouns in the sixth noun class with masculine ~ feminine plural nouns.

1. PURE NUMBER

Groote Eylandters distinguish carefully between small numbers, especially with reference to people. The consciousness of differences between small numbers is reflected in the language by being firmly embedded in the grammar. There was no need to distinguish between large numbers before the advent of modern technology.

In English we think of either one thing (singular) or more than one thing (plural), i.e. there are two categories. In Anindilyakwa the classification is more complex. There are four possible categories:

singular	-	one
dual	-	two
trial	-	three
plural	-	more than three

In practice the trial form can include four.

Ambiguity is avoided by reference to number in the verb, the subject, the object, the adjective and the demonstrative, where these occur in any given sentence.¹

There are nine noun classes, each normally distinguished by its initial letter or syllable, e.g. *n-* and *wun-*.² Number is not indicated in the noun for non-humans, but where necessary it can be shown in various ways which are different from English. For humans, number is indicated in the nouns as well as by numeral adjectives (see section 1.1.2. Numerals).

³ Anindilyakwa Number Names

<i>nara ebina</i>	none
<i>awilyaba</i>	one
<i>ambilyuma ~ ambambuwa</i>	two
<i>abiyakarbiya</i>	three
<i>abiyarbuwa</i>	four
<i>amangbala</i>	five
<i>ememberrkwa</i>	ten
<i>amaburrkwakbala</i>	fifteen
<i>wurrakiriyabulangwa</i>	twenty (invariable - i.e. does not change its form in different grammatical contexts)

- N.B. 1. The word *ambambuwa* 'two' which is cited as an alternative by Worsley (1954:36) is still used, in the restricted sense of 'two only'.
2. Worsley found that there was confusion in the usage of the number names for fifteen and twenty; he concluded that *wurrakiriyabulangwa* is the term for fifteen. Without denying that some people are confused in using the terms, I believe my data clearly indicates that the invariable form *wurrakiriyabulangwa* is 'twenty'. As recently as May 1982 a 74 year old woman was still able to count in fives without hesitation; she counted with the tips of her fingers as indicated in section 1.1.3 and used the number names as outlined above.

⁴ Macassan Number Names

<i>si ~ sibe're ~ se're</i>	one
<i>ruwa</i>	two
<i>tallu</i>	three
<i>appa'</i>	four
<i>lima</i>	five
<i>sampulo</i>	ten
<i>sampulo allima</i>	fifteen
<i>ruwampulo</i>	twenty

(Macassarese numbers 6-9 are different morphemes and not compounds as in Anindilyakwa.)

1.1 CARDINAL NUMBER

A technical economy requires a complicated number system in abstract terms. In Western society many people are fascinated with rote counting from early childhood. When mothers teach their children to count, they very soon pass from the counting of concrete objects to abstract counting far beyond the child's experience.

In traditional Aboriginal society nothing used to be counted that was outside normal everyday experience. When asked for what purpose counting was used in the old days, the old women who know the number names say that counting was used for turtle eggs. There is a story on Groote Eylandt about a mythical dog that could count. The story tells how the dog went hunting and returned to his family with the turtle eggs he had found. He began counting them in order to share them (though the story reveals that the dog cheated by hiding some eggs, causing a fight to develop!).

The number system in Anindilyakwa³ is more developed than in most other Aboriginal languages. Dr Peter Worsley, an anthropologist who was on Groote Eylandt, suggested that contact with the Macassans accounted for the development of number names beyond five, as it is normal in Aboriginal languages to count either to three or to five (Worsley 1954:368, Harris 1980:13). However, in conversations with Old Charlie, while he agreed with me that various names of introduced objects have Macassan origin, he did not consider that the number names originated in the Macassan language.* Macassan number names supplied by Dr C. Macknight (pers. comm.) are listed opposite.⁴

Since the introduction of English, English words have been used almost exclusively for numbers above five, while both the Anindilyakwa and English words have been used for the numbers up to five and also for ten. Today few young people know of the existence of the old Anindilyakwa words for fifteen and twenty. It is probably some time since these words were in use, but they are still remembered by middle-aged and old people, even though they do not always remember which word comes first. The old woman who told me the story of the mythical dog and the turtle eggs used the old words for fifteen and twenty as she described the dog counting.

* Charlie Galiyawa Wurramarrba, born about 1890, died in 1978. He remembered the days of the Macassan traders from the Celebes who came in search of trepang and pearl shell until about 1906, after the White Australia Policy was enforced. Old Charlie's father went away with the Macassans on their boat for about two years. His reminiscences are recorded on tape and are published in Cole 1972:31-2.

5	<i>nuwilyaba nenungkwarba</i>	one man
	<i>wunambilyuma wunenungkwarba</i>	two men
	<i>wurrabiyakarbiya wurrubukenungkwarba</i>	three men
	<i>wurrabiyarbuwa warnungkwarba</i>	four men
	<i>wurumangbala warnungkwarba</i>	five men
	<i>wurumemberrkwa warnungkwarba</i>	ten men
	<i>wurramaburrkwakbala warnungkwarba ~ wurumemberrkwa wurumangbala warnungkwarba</i>	fifteen men
	<i>duwilyaba didarringka</i>	one woman
	<i>wurringambilyuma wurringidarringka</i>	two women
	<i>wurrabiyakarbiya wurrubukidarringka</i>	three women
	<i>wurrabiyarbuwa wurridarringka</i>	four women
	<i>wurumangbala wurridarringka</i>	five women
	<i>wurumemberrkwa wurridarringka</i>	ten women
	<i>wurramaburrkwakbala wurridarringka ~ wurrememberrkwa wurumangbala wurridarringka</i>	fifteen women
	<i>yaraja</i>	goanna ~ goannas
	<i>yuwilyaba yaraja</i>	one goanna
	<i>yambilyuma yaraja</i>	two goannas
	<i>yabiyakarbiya yaraja</i>	three goannas
	<i>yabiyarbuwa yaraja</i>	four goannas
	<i>yimangbala yaraja</i>	five goannas
	<i>yimemberrkwa yaraja</i>	ten goannas
	<i>yamaburrkwakbala yaraja ~ yimemberrkwa yimangbala yaraja</i>	fifteen goannas
6	<i>amangbala awilyaba</i>	6
	<i>amangbala ambilyuma</i>	7
	<i>amangbala abiyakarbiya</i>	8
	<i>amangbala abiyarbuwa</i>	9
	<i>ememberrkwa awilyaba</i>	11
	<i>amaburrkwakbala awilyaba</i>	16
	<i>wurrakiriyabulangwa awilyaba</i>	21
	<i>wurrakiriyabulangwa amangbala awilyaba</i>	26

1.1.2 NUMERALS

Numerals in Anindilyakwa are adjectival. They are complicated by the number of noun classes, because all adjectives must agree with the nouns they qualify. Taking nouns of three of the classes: *akwalya* 'fish', *malamukwa* 'canoe', *yaraja* 'goanna', and qualifying them with the numeral *awilyaba* 'one', gives *awilyaba akwalya*; *muwilyaba malamukwa*; *yuwilyaba yaraja*.

The numeral adjective *awilyaba* 'one' is used in Anindilyakwa more often than in English, sometimes being used in contexts where an English speaker would use the indefinite article 'a'. The numeral adjective *ambilyuma* 'two' is used for dual, *abiyakarbiya* 'three' for trial and *abiyarbuwa* for 'four', and so on for plural nouns. These adjectives occur with both human and non-human nouns and agree with the nouns they qualify.⁵ Some young people today use the compounds *ememberkwa amangbala* 'ten five' and *ememberkwa ememberkwa* 'ten ten' as alternatives for fifteen and twenty.

1.1.3 COUNTING

The number names are basically 1, 2, 3, 4, 5, 10, 15 and 20. Counting after five continues 5+1, 5+2 etc. to ten. Counting after ten continues 10+1, 10+2 etc. to fifteen and counting after fifteen continues 15+1, 15+2 etc. to twenty. By using 20+1 for twenty-one and 20+5+1 for twenty-six and so on, it was possible to progress to twenty-nine, but this has not been common practice.⁶

An old woman counting pebbles for me on the beach clearly demonstrated the method of counting in fives. First she counted 1, 2, 3, 4, 5. Then instead of the cumbersome 5+1, 5+2 etc. for 6, 7, etc., she counted again 1, 2, 3, 4, and jumped to 10, then again 1, 2, 3, 4, and jumped to 15, and finally 1, 2, 3, 4, and jumped to 20, as she pushed aside the separate heaps of pebbles already counted. This was in effect the beginning of abstract counting, as she held in her head the number of heaps of pebbles.

Another example of counting by a non-literate woman threw further light on the procedure. Before counting the pebbles she gathered them up into one heap. This immediately brought to mind an indefinite number of turtle eggs ready to be distributed. Counting was probably used for sharing things more often than for adding them together.

7	<i>awilyaba amamuwa ayarrka</i>	one finger
	<i>awilyaba amamuwa alika</i>	one toe
8	<i>nara nibina nenungkwarba</i>	no man
	<i>nara dibina didarringka</i>	no woman
	<i>nara dibina duwalya</i>	no curlew
	<i>nara wunibina wunenungkwarba</i>	no two men
	<i>nara wurringibina wurringidarringka</i>	no two women
	<i>nara wurribina warnungkwarba</i>	no men
	<i>nara yibina yiburada</i>	no wallabies
	<i>nara mibina malamukwa</i>	no canoes
	<i>nara ebina akwalya</i>	no fish

These Anindilyakwa phrases mean that no man etc. is (was ~ will be) here (there) according to the context.

I have observed old people using fingers and toes for counting in recent times. The Anindilyakwa words for fingers and toes are in the a noun class.⁷ The procedure for counting on fingers and toes is as follows:

The hand is held loosely with the palm facing the person counting. The fingers are placed together one by one; index finger to thumb, middle finger to thumb, ring finger to thumb and little finger to thumb, until all fingers are bunched together. If the number is more than five the fingers are held together while counting continues with the other hand. After ten, the toes are touched one by one, first on one foot and then on the other.

1.1.4 ZERO AND INFINITY

'Nothing' is expressed by *nara ebina* 'not any'. This construction is made from *nara* 'not' and the demonstrative adjective *ebina* 'that (same)'.⁸ There is no concept of 'zero' as a place marker within the Anindilyakwa number system because there are no number symbols in Anindilyakwa.

There is no term for 'infinity' as such, but the concept 'innumerable' can be expressed by a verb in Anindilyakwa: *yinguwurramur.dinama dakwulyingarrijanga* 'there are too many stars to count'.

9	<i>yukwala yaraja</i>	some goannas
	<i>yambawura yaraja</i>	few goannas
	<i>yababurna ~ yangkwulyumuda yaraja</i>	many goannas
	<i>yababurni-langwa ~ yangkwulyumudi- langwa yaraja</i>	all the goannas
	<i>nara engkarrnguma akwala eka</i> not cut some tree	
	'Don't cut any more trees.'	
10	<i>ayukwujiya akungwa</i>	a little water
11	<i>aruma aninga</i>	plenty of food, or a big amount of one kind, e.g. sugar
	<i>ababurna aninga</i>	many kinds of food, or many packets of one kind
	<i>aruma akungwa</i>	a lot of water
	<i>ababurna akungwa</i>	many pools of water
	<i>aruma angwarra</i>	a lot of smoke
	<i>ababurna angwarra</i>	smoke from a number of fires
	<i>aruma angwura</i>	a big fire; a big load of pieces of firewood
	<i>ababurna angwura</i>	many fires
	<i>yaruma yalyukwa</i>	a lot of rain
	<i>yababurna yalyukwa</i>	many rain clouds
12	<i>ambarrngarna akwalya?</i>	how many fish?
	<i>ambarrngarna awarnda?</i>	how many stones? ~ how much money?
	<i>ambarrngarna amalyirra?</i>	how much petrol? i.e. how many litres?
	<i>dambarrngarna dumamawura?</i>	what is the time? (literally 'how many clock?')

When the English question 'How many brothers and sisters have you?' is translated into Anindilyakwa, 'how many?' takes a plural prefix, but *nawena* 'your brother' and *diyabena* 'your sister' do not take a plural prefix, although they take a plural suffix.

1.1.5 COUNTABLE AND UNCOUNTABLE NOUNS

In Anindilyakwa, as in English, there is a distinction between countable and uncountable nouns, although the distinction is organised differently in Anindilyakwa. Quantitative adjectives 'few' and 'many', 'much' and 'little' agree with the nouns they qualify and occur with human and non-human nouns. The adjectives *akwala* 'some', *ambawura* 'few', *ababurna ~ angkwulyumuda* 'many' and *ababurni-langwa ~ angkwulyumudi-langwa* 'all' are generally used with countable nouns,⁹ while *ayukwujiya* 'little'¹⁰ and *aruma ~ adirrunwarna* 'much' are generally used with uncountable nouns.

It is possible for both *ababurna ~ angkwulyumuda* 'many' and *aruma ~ adirrunwarna* 'much' to be used with certain nouns giving them a slightly different meaning.¹¹ The choice of word depends on where the focus lies, in either a countable or uncountable context, e.g. *maruma mamudangkwa* 'much sand' and *mababurna mamudangkwa* 'many sand-hills'. However these distinctions are not always made.

The adjective *ambarrngarna* 'how many?' refers to countable nouns and can only occur with uncountable nouns in certain situations, as in the examples.¹² When a person buys petrol the question *ambarrngarna amalyirra?* is quite acceptable, because the cost of petrol is standardised and the intended meaning is 'how many litres?' (The English alternative for 'how much?' with reference to something being poured into a container is often 'Tell me when to stop'. The Anindilyakwa translation for this request is *yikungwanjajiya* 'You will make me stop'.)

In some situations the adjective *amiyembena?* 'what kind?' can be used to ask 'how much?'. In this case a further question 'a little or a lot?' makes it clear that quantity is under discussion. When material is being discussed *dambarrngarna dumbala?* can only mean 'How many pieces of material?' but the question *dumiyembena dumbala, daruma yinda diyukwujiya?* 'What kind of material, big or small?' is the way to ask 'how much?'. The approximate amount can be indicated by hand gestures. At the Angurugu shop the women usually choose a ready cut length of material for a child's dress and a standard three metres for an adult's dress. Men buying material for ceremonial purposes usually take the roll of material they have chosen and ask for ten or twenty dollars worth, or else demonstrate the required amount. One old man pointed to a garbage bin outside the shop to indicate the length of the material he wanted to buy.

wurr-ambarrngarna n-aw-enu-murriya
 plur-how.many masc.sing-older.brother-your.sing-plur
 'How many brothers have you?'

Answers may include:

wun-ambilyuma n-aw-arrka-kiya
 masc.dual-two masc.sing-older.brother-my-two
 'I have two older brothers.'

wurr-abiyakarbiya n-enikumarnj-arrku-murriya
 plur-three masc.sing-younger.brother-my-plur
 'I have three younger brothers.'

13 arngkambarrngarna bungaja? how many times did they hit you?

- 14
- | | |
|--|-------------------------------|
| y <u>inu</u> wa | we (dual masculine exclusive) |
| y <u>irringu</u> wa | we (dual feminine exclusive) |
| y <u>irrubukw</u> urruwa | we (trial exclusive) |
| y <u>irru</u> wa | we (plural exclusive) |
| nungkuwa | you (singular) |
| nungkw <u>unu</u> wa ~ nungkw <u>urnu</u> wa | you (dual masculine) |
| nungkw <u>urringu</u> wa | you (dual feminine) |
| nungkw <u>urrubukw</u> urruwa | you (trial) |
| nungkw <u>urru</u> wa | you (plural) |

When the prefix *arngk-* 'times' is added to *ambarrngarna* 'how many?', it makes an adverb 'how many times?'.¹³

Frequently questions such as 'How much rain was there?' and 'How much money have you?' are asked differently in Anindilyakwa, being the equivalent of 'Was there a lot of rain?' and 'Have you a lot of money?'. In such cases question intonation can be added to the examples in 11.

1.1.6 PRONOMINAL PREFIXES

The need to be specific with regard to small numbers has resulted in a complex pronominal system which includes a total of twenty-three pronouns. Dual masculine, dual feminine, and trial number are specified in the pronouns denoting 'we (inclusive)', 'we (exclusive)',¹⁴ 'you'¹⁴ and 'they', and are underlined in the examples.

15	<i>yin-aruma</i>	we (dual masculine exclusive) are big
	<i>yirring-aruma</i>	we (dual feminine exclusive) are big
	<i>yirrubuk-aruma</i>	we (trial exclusive) are big
	<i>yirr-aruma</i>	we (plural exclusive) are big
	<i>ningk-aruma</i>	you (singular) are big
	<i>kin-aruma</i>	you (dual masculine) are big
	<i>kirring-aruma</i>	you (dual feminine) are big
	<i>kirrubuk-aruma</i>	you (trial) are big
	<i>kirr-aruma</i>	you (plural) are big
16	<i>yin-ambilyuma</i>	we (dual masculine exclusive) two
	<i>yirring-ambilyuma</i>	we (dual feminine exclusive) two
	<i>yirr-abiya karbiya</i>	we (plural exclusive) three
	<i>kin-ambilyuma</i>	you (dual masculine) two
	<i>kirring-ambilyuma</i>	you (dual feminine) two
	<i>kirr-abiya karbiya</i>	you (plural) three
17	<i>yini-likajama</i>	we (dual masculine exclusive) are going
	<i>yirringi-likajama</i>	we (dual feminine exclusive) are going
	<i>yirrubuki-likajama</i>	we (trial) are going
	<i>yirri-likajama</i>	we (plural) are going
	<i>ningki-likajama</i>	you (singular) are going
	<i>kini-likajama</i>	you (dual masculine) are going
	<i>kirringi-likajama</i>	you (dual feminine) are going
	<i>kirrubuki-likajama</i>	you (trial) are going
	<i>kirri-likajama</i>	you (plural) are going

Pronominal prefixes derived from the pronouns are added to all descriptive¹⁵ and numeral¹⁶ adjectives. The distinction between small numbers is more important to Anindilyakwa speakers for human beings than for non-humans. However the distinction between the sexes is equally important. Therefore in the prefixation for human beings both number and sex are in focus. For non-human nouns the distinction between small numbers is not indicated in the prefixation of descriptive and numeral adjectives, but can be shown in demonstrative adjectives (see section 1.1.7). Although it is beyond the scope of this paper, it should be noted that dogs are to some extent aligned with human beings rather than with animals in the system of prefixation.

The same attention to small numbers is evident in the pronominal prefixes added to verb stems. For intransitive verbs in the present and past tenses,¹⁷ many prefixes are identical to those used in prefixing adjectives. In the subject prefixes of transitive verbs, the distinction between small numbers does not extend throughout the whole system.

- 18 *akina (akwalya)* that (fish) ... it
alakina (akwalya) those (two fish) ... they
abukalakina (akwalya) those (three fish) ... they
awurrakakina ~ amurndakakina (akwalya) those (fish) ... they
- nakina (nenungkwarba)* that (man) ... he
wunalakina (wunenungkwarba) those (two men) ... they
wurrubukalakina (wurrubukenungkwarba) those (three men) ... they
wurrakina ~ wurrumurndakakina
(warnungkwarba) those (men) ... they
- dakina (didarringka)* that (woman) ... she
wurringalakina (wurringidarringka) those (two women) ... they
wurrubukalakina (wurrubukidarringka) those (three women) ... they
wurrakina ~ wurrumurndakakina
(wurridarringka) those (women) ... they
- 19 *yakina yimuwarraka ngarningma yakina nilikajama mukumuku-wa*
that green.turtle we.know that it.goes deep.sea-to
'We know the green turtle. It goes to the deep sea.'
- nalikenuma wurrakina mijiyelyu-wa*
they.went they' beach-to
'They went to the beach.'
- 20 *ningkakina* you (singular that)
kinalakina you (dual masculine those)
kirringalakina you (dual feminine those)
kirrubukalakina you (trial those)
kirrakina you (plural those)
- 21 *yaruma yaraja* a big goanna
yarumuruma yaraja big goannas
wurrarumuruma warniniyarringka the important old men

1.1.7 DEMONSTRATIVES

Demonstrative adjectives occur with human and non-human nouns, agreeing with the nouns they qualify. Distinction is made between singular, dual, trial and plural number in all noun classes.¹⁸

The basic demonstratives are *enena* 'this', *akina* 'that', *angaba* 'that (over there — Old English yon ~ yonder)' and *ebina* 'that (same)'. *Akina* 'that' occurs more frequently in Anindilyakwa discourse than in English. It is often used where the definite article 'the' is used in English and also as a demonstrative pronoun.¹⁹ Demonstrative pronouns are also used extensively in conversation.²⁰

1.1.8 OTHER NUMBER DEVICES

a) Reduplication

Partial reduplication, indicated by underlining in the examples, occurs to show plurality in all adjectives qualifying human and non-human nouns.²¹ When a noun is qualified by two or more descriptive adjectives, reduplication does not necessarily occur on each one if this would prove cumbersome. Reduplication occurs in certain nouns, e.g. *wurrangaringariya* 'babies'. Such words are semantically nominal but grammatically adjectival.

- 22 *kini-lirraiki-likarna* you (dual masculine) went
kirringi-lirraiki-likarna you (dual feminine) went
- 23 Intransitive verb indicating duality of subject:
wun-ambilyuma wun-enungwarba neni-lirraiki-likenuma angerriba
two.masc-two two.masc-man they.dual.masc-two-went over.there
'The two men went over there.'
- yambilyuma yaraja ni-lirraiki-likenuma angerriba*
two goanna it.y-two-went over.there
'The two goannas went over there.'
- 24 Transitive verb indicating duality of object:
nenuma-lirraiki-rringka wurrakina mambilyuma mijiyanga
they.dual.masc.it.m-two-saw they two boat
'They saw two boats.'
- 25 Intransitive verb indicating plurality of subject:
(*warnumamalya*) *na-murndaki-likarna ~*
na-wurraki-likarna they all went (people)
(*yaraja*) *nu-murndaki-likarna* they all went (goannas)
(*duwalya*) *yingu-murndaki-likarna* they all went (curlews)
- 26 Transitive verb indicating plurality of object:
wunalakina-kiya narra-murndaki-rringka wurrababurna wurruwarda
those.two.masc-two they.them-all-saw many dog
'Those two men saw a lot of dogs.'
- 27 *wunambilyuma wunenungwarba-kiya ~* two men
wunambilyuma-kiya wunenungwarba-kiya
ambilyuma alakba-kiya two legs
maruma-kiya malamukwa two big canoes
wurriyukwujiya-kiya two little children

b) Prefixes

Dual prefix *-lirrak-*

An optional dual prefix *-lirrak-* may be added between the obligatory dual pronoun prefix and the verb stem.²² When this prefix occurs in an intransitive verb it indicates duality of the subject.²³ When it occurs in a transitive verb it refers to the object.²⁴

Plural prefix *-murndak-* ~ *-wurrak-*

An optional plural prefix *-murndak-* ~ *-wurrak-* may be added between the obligatory plural pronoun prefix and the verb stem.^{25,26} This prefix acts in the same way as the dual prefix.

Although the dual and plural object prefixes can co-occur with the dual subject prefixes,²⁴ they cannot co-occur with the plural subject prefix.

The following examples show some further uses of the plural prefixes. The prefix *-murndak-* occurs in the idiomatic expression *numurndakayuwaya* 'he is (all) weak'. It also occurs in the noun *amurndakijika* 'things, thing'. The introduction of a multitude of material things bearing English names, and the frequent use of 'thing' in English may be reasons for the use of *amurndakijika* in the singular today.

The prefix *-wurra(k)-* occurs in the adjective *awurra-kawura* 'together' (see section 1.2.3).

Although the quantitative adjectives already show plurality, a plural prefix may be added to some of them, e.g. *awurrak-ababurna* ~ *awurra-kwulyumuda* 'very many'.

c) Suffixes

Dual suffix *-kiya* 'two'

The dual suffix *-kiya* 'two' occurs on nouns and descriptive adjectives. It can also be added to the numeral adjective 'two'²⁷ but not to the free forms of dual pronouns.

Plural suffix *-wiya*

The plural suffix *-wiya* added to nouns and descriptive adjectives expresses an indefinite number larger than two. This suffix often has the meaning of 'all' or 'only' in English. *Warnungkwarba-wiya* 'men' indicates that the people referred to are males, to the exclusion of females, i.e. only males. *Duwalyu-wiya* 'curls' means that the birds are all curls. *Akwalya arumuruma-wiya* 'big fish'

28	<i>angubina-wiya</i>	cloudy
	<i>amarda-wiya</i>	grassy
	<i>amilyumilyinju-wiya</i>	muddy
29	<i>akangkirrayina angwurra</i>	we will run fast
	<i>nalyalyimbukwayinuma</i>	they conversed
	<i>namungkwulijayinuma</i>	they all slept together
30	<i>nenirringkayinama</i>	they (the two men) are looking at each other
	<i>nenuwardiyinama</i>	they (the two men) are fighting each other
31	<i>awilyaba akwalya ayukwujiya</i>	one little fish
	<i>ambilyuma akwalya ayukwujiya</i>	two little fishes
	<i>abiyakarbiya akwalya ayukwayuwa</i>	three little fishes
	<i>abiyarbuwa akwalya ayukwayuwa etc.</i>	four little fishes

infers that all the fish are big. If there are small ones as well, then *arumuruma-wiya* translates 'the big ones'. When we say that *mangkarrkba* 'wild plums' are *muruku-wiya* it may mean that they are all unripe or it may just refer to the unripe ones amongst others.

The suffix *-wiya* may be added to uncountable nouns.²⁸ In this case it is usually translated in English by a noun and 'y', e.g. *arrirru-wiya* 'windy'. However it must not be presumed that an Anindilyakwa noun + *wiya* necessarily has the same meaning as an equivalent English noun + y. Thus 'dirt' can be translated as *ajiringka*, but 'dirty' is not always *ajiringka-wiya*. In this case Anindilyakwa is more specific than English. A dirty plate may be *aninga-wiya* 'having food on it' or *amalyirra-wiya* 'sticky (having juice on it)'. The plate is only *ajiringka-wiya* if it has been on the ground and literally has earth and dust on it.

First order suffixes *-ay-* and *-iy-*

A suffix of the first order, i.e. a suffix immediately following the verb root, viz. *-ay-* or *-iy-*, occurs on certain verbs marking various aspects of plurality. It is underlined in the examples opposite. In intransitive verbs the suffix expresses togetherness of the action.²⁹ In verbs which normally require transitive prefixation the suffix expresses reciprocity. In this case it should be noted that the intransitive set of prefixes is used.³⁰

Past tense suffixes

In certain common verbs there are two past tense suffixes, one for the singular and one for the plural subject, e.g. *yingangkarra* 'she ran away' but *nuwangkirraja* 'they ran away'.

d) The adjective *ayukwujiya* 'little'

The singular ~ dual adjective *ayukwujiya* 'one ~ two little' has a plural form *ayukwayuwa*. The plural form is used for any number bigger than two.³¹

32 *likaja dirrbura ememberrku-wa alikira*
go straight ten-to house

'Go straight to the tenth house.'

yabiyakarbiyu-manja yimawura
three-in month

'In three months time' or 'in the third month'

naru-wiya ambilyuma durdurla arduma kilawurradinama ngayuwa
not-while two bell not.call I.will.return I

'I'll come back before the second bell.'

kengkirraju-manja ambilyuma durdurla kamba kilawurradinama
I.will.hear-when two bell then I.will.return

'When I hear the second bell I'll come back.'

kengkirraja-mu-langwa ngayuwa ambilyuma durdurla kamba
I.will.hear-statement.of.fact-after I two bell then

kilawurradinama
I.will.return

'I'll come back after the second bell.'

arngk-umangbala ningiridanguma eka kamba bangkilya nengkarrnga
times-five I.chopped tree then tomahawk it.broke

'I chopped the tree five times and then (the sixth time) the tomahawk broke.'

mabiyakarbiyu-manja marringa (arngk-abiyakarbiya-ma) ningilikarnuma
three-on night times-three-emphasis I.went

awuruku-wa kembirra ningingarringka dingarrbiya
billabong-to then I.saw.it.d crocodile

'On the third night (the third time) that I went to the billabong I saw a crocodile.'

33 *andiya ngarningka akwiyadenu-wa ~ amukwiyadenu-wa*
look.for again this.kind-to

'Look for more of this kind.'

34 *akwiyadena eningaba umba akwiyadakina ~ akwiyadangaba awurrariya*
this.kind good but that.kind ~ that(over there).kind bad
'This kind is good, but that kind is not.'

1.2 MANIPULATION OF NUMBERS

1.2.1 ORDINAL NUMBER

There are no special terms for ordinal number in Anindilyakwa. The distinction between cardinal and ordinal number is not focused upon in the same way as in Western society. The same terms are used for both cardinal and ordinal number. The meaning is clear from the context in which the numeral is used.³² Note the adverbial expression using the prefix *arngk-* 'times' in the last two examples.

1.2.2 SORTING

A great deal of sorting occurs in a traditional Aboriginal community. Although the categories into which a child has learnt to sort things may differ from those categories the school emphasizes, the actual skill of sorting is not new to the beginning school child.

One aspect of sorting involves like and unlike attributes. When a mother teaches her child which berries are edible and which are not, she points out an example and tells her child to pick some berries like it.³³ During the process of picking berries, sorting takes place as a person chooses the biggest berries on a bush. Further sorting automatically takes place after collecting is finished. Anyone eating a handful of berries chooses the best and discards the least ripe, the over-ripe, the stunted and diseased that were unnoticed at first. In this way a more precise sorting follows the initial rough sorting.³⁴

When someone is making string, the strips of fibre that have been collected must be sorted into the right lengths. While the strips are being gradually inserted into the string, any unsuitable strips are discarded. Thick and thin pieces are selected from the pile of strips according to the thickness of the partially made string. In this way the complete string should be the same thickness throughout, although it is composed of strands of varying thickness. It may be noticed that this type of sorting entails choosing complementary attributes instead of like attributes, to achieve uniformity in the finished product.

- 35 *eningaba-wiya ~ eninginingaba-wiya* the good ones
akwalya ayukwayuwa-wiya the small fish
mulbulirra miyarrmiyarrma-wiya the thin strips of fibre
- 36 *nalikena wurruwurrakawura* they went together
nilikena nakwukawura he went alone, by himself
nalikena wurrayabijaba they went separately
wakuma eka ayabijaba put the sticks down separately
- 37 *kirrambambilyuma-wiya* all of you, two by two
kirruwilyuwilyaba-wiya all of you, one at a time
wurringuwilyuwilyaba-wiya two girls, one by one
awilyuwilyaba-wiya one each, e.g. fish, one by one
na-likarna wurr-ambambilyuma-wiya
they-went plur-two.two-plur
'They went two by two.'
- 38 *arngk-ambarngarna ningki-likarnuma Darwin-langwa*
times-how.many you-went Darwin-from
'How many times have you been to Darwin?'

Typical answers are:

arngk-abiyakarbiya three times
arngk-ababurna many times

The suffix *-wiya* (see section 1.1.8) is used when sorting.³⁵

1.2.3 GROUPING

There are various ways of expressing the concepts of togetherness and separateness. The basic terms are *awurrakawura* 'together', *akwukawura* 'alone' and *ayabijaba* 'separate'.³⁶ (See also the suffixes *-ay-* and *-iyi-* in section 1.1.8.)

a) Addition and multiplication

Before Western education was introduced it is probable that sharing, and therefore the process of division, was more common than the processes of addition and multiplication.

Adding took place with small numbers in concrete situations. It was closely connected with counting, which in fact makes use of the process of addition in most numbers over five (see section 1.1.3). For instance, several men might count their spears before fighting to ascertain the total. Each man would presumably have a different number, so it would not be possible to take the short cut of multiplication to obtain the total number.

When several canoes set sail, the number of people accommodated by each canoe depended on the size of the canoe and the proportion of adults to children. The possibility of four canoes setting sail each containing the same number of people with their possessions sounds more like a hypothetical, abstract proposition than a real life situation. Such hypothetical examples are just as unlikely today, and this should be taken into account when devising mathematics curricula.

The possibility of accounting for people and things in small groups of equal numbers, especially pairs, is not precluded. When partial reduplication, indicated by underlining in the examples, occurs in the numeral adjective *ambilyuma* 'two' and the plural suffix *-wiya* is added, the new word means 'two by two, two at a time, two each or by twos'. Other numeral adjectives can be handled in the same way, e.g. 'by ones'.³⁷ The processes of addition and multiplication are not likely to be involved. However the prefix *arngk-* 'times' is directly associated with multiplication.³⁸

b) Division and subtraction

Sharing is one of the first lessons an Aboriginal child learns. The process of division is common for the purpose of sharing. It concerns concrete objects, particularly food, and is not considered in the abstract.

- 39 *yukwa ekwarra arinja* give me half the orange
mikwarra yukwa nganja give me half of them, e.g. *mangkarrkba*
 'wild plums!'
ekwarra akungwa half the water
- 40 *ngay-embirra nguwurdiya*
 I-in.turn let.me.climb
 'It's my turn to climb.'
- 41 *nawarrukwayinama* they take turns, e.g. doing shift work
kirringu-warrukwayinuma diriya
 you.two.fem-changed. reciprocal dress
 'You two (girls) have swapped dresses.'

Sharing means dividing countable objects, such as shellfish and berries, which are often too small to be worth counting, and which can be divided into heaps or handfuls. Larger countable objects, such as fish, turtle eggs and wild apples are either counted or shared in heaps. Sharing also means dividing by cutting, as in the case of a big fish, a turtle or a wallaby (see example 161). As sharing is usually done within a group of people of different ages and sexes, the division is not usually exact, nor is it precisely calculated in advance.

There are no Anindilyakwa words for the abstract terms 'half' and 'apart'. When objects are divided into two parts, the adjective *ekwarra* 'one part' is used with the appropriate noun meaning one out of two parts. This word is usually used to translate the English word 'half', although in practice it may be only an approximation.³⁹ It is probably connected with the adjective *akwarrirra* ~ *akwarra* 'torn' although it can also be used for uncountable nouns (see section 2.9).

Another aspect of sharing is taking turns. The suffix *-embirra* or *-ambulangwa* ~ *-abulangwa* ~ *-ababulangwa* is added to the basic pronoun form, producing a series of words such as *ngay-embirra* 'in my turn'.⁴⁰ The verb stem *-warru kwayina* has several meanings, including 'taking turns, swapping and sharing'.⁴¹

The process of subtraction focuses on precise numbers, but when children have sneaked off with some turtle eggs, the abstract exercise of subtraction to discover how many are taken and how many remain is quite irrelevant. When a few fish escape the hunter's spear, he does not contemplate what might have been. Again, when a fish has gone bad it is not 'subtracted' — it is forgotten.

⁴² *yingalyubarina dakina awank-iyukwujiya aninga umba diyabadikba*
she.ate she rather-little food but her.sister
yingalyubarina ayukwujiya angbilyuwu-baba
she.ate little sickness-because

'She only ate a little but her sister ate even less because she is sick.'

wulkwa mambawura mamamuwa memu-manja beka, umba mangabu-manja
only few marbles this-in bag, but that-in
beka muwank-ambawura makina
bag rather-few it

'There are fewer marbles in this bag than in that one over there.'

mambawura mamamuwa miyukwujiyu-manja beka, umba muwank-ababurna
few marbles little-in bag but rather-many
mangabu-manja
that-in

'There are a few marbles in the little bag, but there are more (quite a lot) in the one over there.'

muwank-ababurna mamamuwa memu-manja beka umba mababurna
rather-many marbles this-in bag but many
angwurra mangabu-manja
more that-in

'There are quite a lot of marbles in this bag, but there are a lot more in the one over there.'

⁴³ *aduwaba nuwardanga ababurna angwala umba yarrungkwa ababurna*
today he.killed many crabs but yesterday many
angwurra nuwardanga nakina
more he.killed he

'He caught a lot of crabs today but yesterday he found even more.'

aruma akungwa enu-manja awurukwa umba aruma angwurra angabu-manja
big water this-in billabong but big more that-in

'There is plenty of water in this billabong, but there is more in that one over there.'

1.2.4 INEQUALITY AND EQUALITY

a) Inequality

The terms 'more than', 'less than' and 'fewer than' are expressed differently in Anindilyakwa and English, as is shown in the examples using the adjectival prefix *awank-* 'rather'. Note the use of *wulkwa* 'only'.⁴² 'More than' can also be expressed by the intensifier *angwurra*.^{42,43} The most common way of expressing the concept of inequality is from the point of view of the greater quantity.

⁴⁴ *yaruma yalyukwa nilarrina aduwaba wuburra yarrungkwa*
big rain it.y.fell today like yesterday

'There was as much rain today as yesterday.'

ayukwujiya akungwa enu-manja bajikala wuburra mangabu-manja cup
little water this-in tin that-in cup

'There's only a little water in the tin, the same as in that cup.'

mambawura mema marndekirriyerra enu-manja angalya wuburra angakuba
few this yam this-in place like over.there

'There are as few yams in this place as there are over there.'

⁴⁵ *alakina-kiya akwalya ayukwujiya-kiya neyenama akina wuburra aruma*
those-two fish little-two they.do that like big

awilyaba-ma akwalyi-da
one-emph fish-emph

'Those two little fish are equal to one big one.'

⁴⁶ *ebinu-manja angalya* in that place, i.e. the same place already
described

nibina nenungkwarba
same man

'that man, i.e. the same man already described'

dibina!
that.same

'That's the one!' (they're talking now about that bird I was
telling you about before)

⁴⁷ *akinu-manja angalya ebinu-manja yingumakburrangarnu-manja*
that-at place same-at she.it.m.found-at

yingumadakama marndekirriyerra
she.it.m.cooked yam

'She cooked the yams at the place where she found them.'

b) Equality

The concepts 'as much', 'as many as', 'as little as' and 'as few as' are translated using *wuburra* 'like'.⁴⁴ *Wuburra* 'like' can also be used to describe items with attributes that are equivalent but not the same, e.g. two small fish that are equal to one large one,⁴⁵ but this would not normally be stated so precisely.

c) Identity

ebina 'same'

The English demonstrative 'that' refers to a particular person or thing already mentioned, to avoid ambiguity and to preserve continuity. The adjective *ebina* 'same' has this function in Anindilyakwa.⁴⁶

In sentences containing a main clause and a relative clause, *ebina* 'same' occurs in the relative clause as distinct from *akina* 'that' in the main clause.⁴⁷

⁴⁸ *alakina bajikala adidirrbura ngawu-da*
those.two tin same still-emph

'Those two tins are just the same.'

⁴⁹ *wunembirrki-didirrbura-kiya* two men equally stocky
wunilingaki-didirrbura-kiya two men equally tall

yakakwuruma yi-didirrbura-kiya
we.two.incl.know we.two.incl-same-two

'You and I both know (the same).'

mababurna manyungwunya nungkwulangwa wuburra ngalilangwa,
many figs your like her

kirringi-didirrbura
you.two.women-same

'You two women both have the same number of figs.'

nenilikena wuni-didirrbura makinu-manja diraka
they.two.men.went two.masc-same that-in truck

'They both went together in the same truck.'

⁵⁰ *yirriyar.danga yirru-wurrakidirrbura*
we.arrived we.all-same

'We all arrived together (at the same time).'

adidirrbura and *awurrakidirrbura* 'same'

The adjective *adidirrbura* 'same' is formed from the adjective *adirrbura* 'straight' by repeating one part (see section 1.1.8 Reduplication). It is used in two ways:

- to describe two or three items which are identical in all respects. 'Just' and 'exactly' reinforce such statements in English, and *ngawa* 'still' and *ngawu-da* 'still' + the emphatic suffix *-da* reinforce similar statements in Anindilyakwa.⁴⁸
- to describe two or three items sharing one or more characteristics. It describes people and things being likened as to size, height, shape, age, colour and so on. People are also likened as to their possessions and to characteristics such as nationality, left- and right- handedness, various abilities and moral qualities.⁴⁹ The following phrase may refer to any such comparison according to the context:

wunalakina-kiya
dual.masc.those-two

wuni-didirrbura-kiya
dual.masc-same-two

'Those two men are the same.'

In the context of a competition, two contestants or two teams running neck-and-neck or having the same score are described as 'equal' in English and *adidirrbura* in Anindilyakwa.

The plural *awurrakidirrbura*⁵⁰ has the same function as *adidirrbura*.

ebinu-murrada ~ *ebinu-murradungwa* 'self-same'

In Anindilyakwa, when one person or thing appear in different circumstances, identity is kept constant by the use of *ebinu-murrada* or *ebinu-murradungwa*. These words occur in a restricted context, such as in the following circumstances:

In one bark painting several scenes may be depicted to illustrate various parts of one story. One particular man may be represented in each scene together with other figures. To understand the story, it is necessary to ascertain whether the figure in each scene represents that same person or someone different. Having established the identity of the first figure, the rest of the figures are pointed to in turn. The main character whose identity

was first established is referred to in each successive scene as *nibinu-murrada* 'the same man'. Any other figures are *wurrumingka* 'different'. Similarly, in the consecutive illustrations of a book, people, places and things are identified in this way.

The English word 'same' is very frequently used in the classroom. Typical examples include a teacher asking a child to point to several occurrences of the 'same' word; a child complaining that he has been given the 'same' book that he was reading from on an earlier occasion because he recognises a dirty mark on the page; a child complaining that he is required to re-read the 'same' paragraph that he has already read; a child repeating the 'same' mistake that he has made before. In each case the English word 'same' is translated by *ebinu-murrada* ~ *ebinu-murradungwa* 'self-same'.

Comparing *adidirrbura* with *ebinu-murrada*

Anindilyakwa differentiates between *adidirrbura*, *awurrakidirrbura* 'same, identical (dual, plural)' and *ebinu-murrada* 'self-same (singular)'. This can be illustrated by the following classroom situation:

When books of the one title are handed around a class in school, the children are all said to be reading from the same book (*awurrakidirrbura*). The teacher tells them to find the same story, the same page, paragraph, sentence or word (*awurrakidirrbura*). The books are all open at the same place, they are *awurrakidirrbura*.

However, when referring to the page studied the previous day, the Anindilyakwa speaker must use *ebinu-murrada* 'self same'. The English speaker can use the one word 'same' in both contexts.

In such situations the Groote Eylandters' concept of 'same' is more carefully defined than the English.

2. APPLIED NUMBER

2.1 ESTIMATION

In a non-literate society with a food-gathering and hunting economy, absolute standards are irrelevant, and people are not accustomed to using descriptive terms out of context.

A technological economy requires absolute standards of weight and measurement. Most people rely heavily on the availability of these measures, and so the skills of estimation are not well developed. Western education forces children to think in abstract terms of measurement at an early age.

In the Aboriginal society, without indigenous arbitrary standards of measurement, the skills of estimating are very well developed. Children learn to estimate by watching adults and by trial and error in situations where they are always highly motivated, because estimation is never a theoretical exercise.

Estimation in hunting and gathering takes place as a matter of course in everyday life. A man estimates how far he can travel before night-fall. When he aims his spear he throws it at the precise angle for it to travel through the air to reach its objective. When the target is a fish under water he must take the refraction of light into account. At all times he must judge the strength of the wind very accurately.

A woman digging yams keeps on digging until, in her estimation, she has enough to feed her family. She might have to take into account the length of the homeward journey. She will weigh up the effort required to dig in hard soil against the estimated size of the yam still in the ground. When she gives her children yams or wood to carry home and carries a load on her own head, she knows just how much can be managed by each person over a certain distance without dropping any enroute.

I have been full of admiration at the way Aborigines know precisely when food is cooked. I have seen oysters cooked while still on the rocks, although I have not even tried to cook them that way myself. Pine needles are placed on top of the oysters, set alight and then doused with sea-water at the exact moment required to cook the oysters without either drying or burning the tiny molluscs. This is

51 *mabiyakarbiyu-manja mamawura* in three days time
 yambilyumu-manja yimawura in two months time
 yabiyarbuwu-manja yimawura in four months time

a comparatively quick process, but I have observed the same precise estimation of time in longer processes such as when women cook damper. There are numerous other examples.

2.2 TIME

A large number of phrases refer to time in Anindilyakwa. Very likely one person's interpretation of a term varies from another's. In English we too have a varying sense of time. One person's idea of 'a while ago' does not always match another's idea of the same expression. It is also true that one person's idea of 'a while ago' differs according to the context. It is not always easy to pin down an exact English equivalent of the Anindilyakwa terms.

Non-Aborigines are not content to wait. They try to do several other things while waiting for something else to happen, sometimes forgetting the first task in hand. Time appears to pass so quickly when one is well occupied that one loses track of its passing. This is not so with Aborigines. They prefer to concentrate on one thing at a time and avoid the possibility of confusion from trying to do too many things at once. Waiting, in fact, is itself an integral part of the task.

Aborigines know when a damper is cooked because they are content to wait and they know how long to wait. They have a seemingly 'innate' sense of time span without clocks. They also know when it is the right time to do things. Their feeling for time is probably based on long reliance on the sun's movements and on their daily routine. It is now so inbuilt that it is still there without reference to the sun, even in cloudy weather. This sense of time is dependent on the maintenance of the traditional routine or on the firm establishment of a new one.

2.2.1 NATURAL PHENOMENA AS TIME MARKERS

Aborigines are much more aware of changes in the environment than most non-Aborigines are. They automatically observe every alteration in the sun and the moon and in the seasons of the year.

a) Sun and moon

The sun *mamawura* and moon *yimawura* are used for counting the days and months.⁵¹ In the old days hand gestures were used to describe the time of the day at which events took place. A person pointing to

52	<p><i>kekbadia adinuba</i></p> <p><i>larruwura akwudangwa</i></p> <p><i>nalarruwuradinama arakba</i></p> <p><i>kumawiyebu-manja mamawura</i></p> <p><i>mumawiyebu-manja mamawura</i></p> <p><i>awankilerrmur.da</i></p>	<p>it will soon be light</p> <p>nearly mid-afternoon</p> <p>it is already mid-afternoon</p> <p>when the sun sets (future)</p> <p>when the sun set (past)</p> <p>nearly night time (literally 'rather dark')</p>
----	---	---

the sky in a certain direction would say *numiyaminuma mamawura* 'the sun was like this'. *Kumiyaminama mamawura* 'the sun will be like this' accompanied the hand gesture to describe the time of day in the future. Old and middle-aged people have retained this method today.

The word *mamawura* 'sun' with the addition of the *d* class prefix is used to describe a clock, *dumamawura*. *Dumamawura dadungwayarrka* 'a clock belonging to the hand' is used for a wrist-watch. The question *mambarrngarna mamawura?* 'How much sun?' is asked of someone with a watch or clock, when a person wants to know the time. An answer in English is expected. (*M* noun class prefixes often occur in time phrases because *mamawura* 'sun' is the noun understood.)

Both *mamawura* 'sun' and *marringa* 'sleep' are used for counting short periods of time. 'Every day' can be translated either *mababurni-langwa marringa* 'every sleep' or *mababurni-langwa mamawura* 'every sun'. Because of the influence of English the latter expression is becoming more common.

For Aborigines on Groote Eylandt day begins at sunrise and not at midnight. Therefore a patient coming to the hospital for treatment at 4 a.m. still refers to the events of the previous day as happening 'today'. We have the fixed idea that the day starts at midnight, and unless we realize that the Aborigines have an equally fixed, though different, idea, confusions can arise.

The basic terms for 'night' and 'day' are *meningalyarrngwalyilya* ~ *alyarrngwalyilya* 'at night, night-time' and *menungwulida* 'by day, day-time'. Although colour terminology is beyond the scope of this paper, it is of interest to note that *menungwulida* 'day-time' literally means 'belonging to colour' (*alida* 'colour').

There are various terms for the different parts of the day describing the sun's movements and the changes between darkness and light. Vocabulary is especially rich for periods of significant observable change. A few examples only are given.⁵²

The terms for morning and afternoon are *wurdarriyu-wiya* 'in the morning' and *larruwura* ~ *larruwuri-langwa* 'in the late afternoon'. The word *larruwura* is not exactly the same as the English word 'afternoon' because it does not refer to the early part of the afternoon. *Mamerrikuwilyarra* 'midday' includes the early afternoon.

- 53 *muwilyaba mamarika akwa yuwilyaba yinungkwura*
 one dry.season.wind and one wet.season.wind
 'one dry season and one wet season (one year)'
- 54 *mibinu-wiya mamarika* last dry season
numangkarrinu-wiya mamarika while the south east winds
 were blowing
naru-wiya mamarika before the dry season
- 55 *ebinu-wiya ~ ebini-yada Saturday* last Saturday
engku-wiya ~ engki-yada Saturday the Saturday before last
eminingku-wiya ~ eminingki-yada
Saturday the Saturday before that
enu-manja Saturday this coming Saturday
engku-manja Saturday the Saturday after next
eminingku-manja Saturday the Saturday after that
- 56 *mingku-wiya ~ mingki-yada (mamawura)* the other day (not specific)
mingku-manja (mamawura) the next day

b) Seasons

Time in longer spans than a few months can be counted by the seasons. The two main seasons in the year, the dry and the wet, are marked by the two main winds *mamarika* 'the southeast trade winds' and *yinungkwura* 'the monsoon winds'. 'One year' is the same as one dry season and one wet season.⁵³

The seasons are more frequently used for pin-pointing events than for counting periods of time. For instance, events in the past are described as taking place during the dry season or the wet season, or before or after these seasons.⁵⁴ (See sections 2.2.2 and 2.2.5 for this use of the suffix *-wiya*.)

One old woman who wanted to indicate a long period of time since a particular event took place began enumerating the names for the different wind directions. As well as four words for winds she included *kirijumija* 'Christmas', which is often used nowadays for 'year'.

2.2.2 TIME SUFFIXES

Many Anindilyakwa suffixes have different meanings in different constructions.

a) Time phrases

In most time phrases, the suffixes *-wiya* and *-yada* occur with reference to past time and *-manja* with reference to future time. The adjectives *enena* ~ *ena* 'this', *ebina* 'same', *engka* 'other', *eminingka* 'different' all occur in time phrases.⁵⁵ They occur with the a noun class, except when nouns of the m noun class such as *mamawura* 'sun' are understood.⁵⁶

Note that because the English 'on Sunday' refers to both past and future time, *-manja* is often used referring to both past and future time when suffixed to names of the days of the week.

During the narration of past events, *mingku-manja* 'the next day', normally in a future context, also refers to the next day within the past time sequence.⁵⁶

- 57 *akini-yada numangkarrinu-manja mamarika* at the time when the
nalikenuma angerriba dry season wind was
blowing they went over
there
- kinilikaju-manja nakina yangkwurrangwa,* when he comes here (at
akini-yada ngawa akeningmudinama that time) we'll find
ngarna out
- 58 *ningilikenu-manja* when I went
ningambilyu-manja erriberribu-manja when I lived in the
bush
kilikaju-manja when I (will) go, if
I go
- 59 *ningilikenu-murri-langwa ~*
ningilikenu-mu-langwa after I went
- 60 *ningilikenu-murru-wa* before I went
kilikaja-murru-wa before I (will) go
- 61 *naru-wiya kilikena* before I went
naru-wiya alikira before there were houses,
while there were no
houses
- 62 *mangkarrkba muwalyuwa aduwaba* the wild plums are ripe
now

The demonstrative adjective *akina* 'that' occurs with the suffix *-yada* to indicate a particular time either in the past or in the future, 'at that time'.⁵⁷

b) Time clauses

In time clauses when the suffix *-manja* and the suffix combinations *-murri-langwa* ~ *-mu-langwa* and *-murru-wa* are added to verbs they indicate various aspects of time. The suffix *-manja* occurs with the past and future tenses meaning 'when'. In the future it also means 'if'.⁵⁸ The suffix *-murri-langwa* ~ *-mu-langwa* 'after' occurs with the past tense,⁵⁹ and the suffix *-murru-wa* 'before' occurs with the past and future tenses.⁶⁰

'Before' is also expressed in a negative construction, using *nara* 'not' and the suffix *-wiya*. In this case the suffix *-wiya* could be translated 'while' (see section 2.2.5).^{61,54}

2.2.3 TIME WORDS

The basic time words are *aduwaba* 'today', *yarrungkwa* 'yesterday' and *arningkwaya* 'tomorrow'. However *aduwaba* has a wider area of meaning than the English word 'today'. It can include such expressions as 'now', 'nowadays' and 'at this time'.⁶² When 'today' is used in its restricted sense, it is often qualified by the time phrase *memu-manja mamawura* 'this very day'.

a) *Ngambi-yada* 'when?'

The suffix *-yada* is added to the interrogative root *ngamb-* to give the meaning 'when'. In most other time expressions *-yada* refers to past time, but in the interrogative *-yada* refers to both past and future time.

63	<i>nilikenuma arakba</i> <i>neningaba arakba</i> <i>likaja arakba!</i> <i>ngarrilikaja arakba!</i> <i>biya nilikena arakba</i>	he's gone now (in conversation) he's well now go now! let's go now! and now (then) he went (in narrative discourse)
64	<i>likaja enenu-wiya!</i> <i>ningardanga angwurra biya</i> <i>akini-wiya numurajanga</i>	go immediately! I called loudly and jumped up immediately
65	<i>kabilbayina adinuba</i> <i>ngambiyada neningabaduma?</i> <i>adinuba</i>	(the water) will soon boil when did he improve? a little while ago
66	<i>ningeningma arngki-darrba</i> <i>arngki-darrba kinilyikarrburrkuma</i> <i>arngki-darrba kinumanguma</i>	I nearly know, i.e. I'll soon learn it he nearly slipped he nearly got it
67	<i>larruwura akwudangwa</i> <i>akwudangwa durdurla</i>	nearly mid-afternoon nearly bell (time)

b) *Arakba* 'now, already'

The time word *arakba* 'now' focuses on the aspect of completion rather than time at a particular moment. It refers to actions that are already completed and states that have already changed. It is used alone in answer to questions such as 'Have you finished?' and 'Has he gone?'. It is also used with the imperative and hortatory moods to elicit an immediate response. In narrative discourse it occurs frequently and may be translated by both 'now' and 'then' in English.⁶³

Sometimes *arakba* 'already' translates the English 'after', as in a discussion about when an event took place, e.g. *wiyerrirda arakba* 'cyclone already' translates 'after the cyclone'.

c) *Enenu-wiya, akinu-wiya* 'immediately (now, past)'

The suffix *-wiya* added to the demonstrative *enena* 'this' gives the meaning 'immediately, now'. It is used less than *arakba* 'now' but unlike *arakba* it is an answer to the question 'when ...?'.⁶⁴ When 'immediately' refers to an event in the past, *akinu-wiya* literally 'that while' is used.⁶⁴

d) *Adinuba* 'soon', 'recently'

This word is used to refer to actions about to happen or having just happened and to states just changed or about to change. It has a more restricted area of meaning than the English words but is frequently used alone in answer to the question 'when...?'.⁶⁵

e) *Arngki-darrba* 'soon', 'nearly'

Another word for 'soon' is *arngki-darrba*, literally 'time short'. With reference to a past event *arngki-darrba* occurs with a verb in the subjunctive mood meaning 'nearly'.⁶⁶

f) *Akwudangwa* 'nearly'

The primary meaning of *akwudangwa* is 'near' in the spatial sense. The Anindilyakwa speaker sees a close connection between distance and time. Therefore *akwudangwa* also means 'nearly' when it is used with an adverb of time or a noun in reference to a future event or change of state. This word is also used alone in answer to the question 'when ...?' and may sometimes be interchangeable with *adinuba* 'soon'.⁶⁷

68	<i>nara kinirringka nakina umba aduwabu-manju-bu</i>	I've never seen him before until today
	<i>nara kumarringka makwiyadakina diraka umba adinubu-manju-bu</i>	I've never seen that kind of truck until recently
69	<i>ar...akba-wiya ~ arakba-wiye-ka</i>	a very long time ago (see Appendix 1)
	<i>arakba-wiya</i>	long ago
	<i>awank-arakba-wiya</i>	a rather long time ago
	<i>wilyarru-wilyarra</i>	not so long ago (literally 'middle middle')
	<i>awank-adinuba</i>	a fairly short time ago
	<i>adinuba</i>	a short time ago
	<i>adinube-ka ~ yarrungkwi-yarrungkwa</i>	a very short time ago (literally 'yesterday yesterday')
	<i>adinube-ka</i>	very soon
	<i>adinuba</i>	soon
	<i>awank-adinuba</i>	fairly soon
	<i>ambaka</i>	later
	<i>ambaka amiyerra</i>	much later

g) *Aduwabu-manju-bu* 'today, for the first time'

A positive answer to such questions as 'Have you ever seen...?' is the idiomatic expression *aduwabu-manju-bu* 'today, for the first time'. This construction combines *aduwaba* 'today' with the suffixes *-manja* 'on, at' and *-bu* (emphasis). The parallel constructions *adinubu-manju-bu* 'recently for the first time' and *yarrungku-manju-bu* 'yesterday for the first time' combine *adinuba* 'recently' and *yarrungkwa* 'yesterday' with the same suffixes.⁶⁸

2.2.4 SEQUENCING AND COMPARISON OF TIME

The basic words in the sequencing of time are *arakba-wiya* 'long ago' and *adinuba* 'recently, soon' (see section 2.2.3). These words can be modified in various ways to denote different intervals of time with respect to the present.⁶⁹ When comparing one past event with another, the intensifier *angwurra* 'more' is used giving *arakba-wiya angwurra* 'a much longer time ago'. When comparing one future event with another, *amiyerra* 'continuing' is used giving *ambaka amiyerra* 'much later'.

- 70 1. *likaja nungkuwa adinuba-wiya umba ngayuwa kilikajama arijilangwa*
 go you first but I I.will.go afterwards
2. *lyengmena nungkuwa umba ngayuwa karijadinama arijilangwa*
 lead you but I I.will.go.last afterwards

Both 1 and 2 mean the same, 'You go first and I'll go last'.

- 71 *adinuba-wiya kilikajama shop-uwa,* First I will go to the shop,
kembirra arijilangwa kingangarrenama then afterwards I will visit
dakina akwa kingaminarjirrenama her and wash her clothes and
dumbala ngalilangwa akwa cook her food.
kingaminidakinama aninga

- 72 *wurrababurni-langwa wurriyukwayuwa* all the children came early
nalikenuma waranjubawiya (literally 'quickly')
- yikilikaja waranjubawiya nara ambakilangwa*
 you.will.come quickly not slowly

'Come quickly and not slowly!'

a) *Adinuba-wiya* 'beforehand, first'

The adverb *adinuba-wiya* means primarily 'beforehand, first'. It is a compound word, combining *adinuba* 'soon' and the suffix *-wiya* which occurs in time phrases.⁷⁰

b) *Arijilangwa* 'afterwards, last'

The adverb *arijilangwa* means primarily 'afterwards, last'. This word has the same root as *-arijidina* 'come, go last'. The suffix *-langwa* occurs on verbs meaning 'after', and *-ariji-* may have occurred alone in the past, but not today.⁷⁰

c) *Adinuba-wiya* and *arijilangwa*

Because time was not measured in the absolute sense, the concepts 'early, earlier, earliest' used to be less significant than they are today. Now because of the introduction of the clock the meaning of *adinuba-wiya* 'first' has been extended and the concept of earliness included. Similarly *arijilangwa* 'last' has been extended to include 'late, later, the latest'.

When *adinuba-wiya* 'first' and *arijilangwa* 'afterwards' describe consecutive events, only one can be *adinuba-wiya* but several following events can be *arijilangwa* 'afterwards, later'.⁷¹ This sequence corresponds with English. However, people arriving after the first arrival come *arijilangwa* 'afterwards, later' in relation to other people, even though they may still be in time for the following event.

Reference to a number of people all arriving early might seem to create a problem in Anindilyakwa. In this case an Anindilyakwa speaker would use *waranjubawiya* 'quickly' to translate the English 'early'.⁷²

A teacher frequently wants to say to the children, 'Come early and don't be late!' The concept is not lacking, but once again we need to forget our favourite word 'early' and verbalise the concept differently for effective communication, using the adverb 'quickly' or an adverbial phrase such as 'before the bell'. Children arriving late for school after the bell has rung can be reprimanded for coming *arijilangwa* 'late'.

- 73 *enungw-adinuba-wiya alawudawarra* the first story
menungw-arijilangwa mijiyanga the last boat
nenungw-arijilangwa nenungkwarba the last man
- 74 *niliraka adinakba angwura* he lit the fire (in readiness
for cooking)
- 75 *numudayinuma nenungw-amiyerra* he was paddling for a long
time
ning-enungkwurakba angbilyuwa I have been sick for a long
time
- 76 *nening-angkawura nambilyuma yelakwa* he always lived here
ngarriyekirrererra akambilyama we will be happy all the
ngarning-angkawura time

The adjectival form of *adinuba-wiya* 'first' and hence also 'earliest' is *ening-adinuba-wiya* ~ *enungw-adinuba-wiya*. Similarly the adjectival form of *arijilangwa* 'last' and hence also 'latest' is *ening-arijilangwa* ~ *enungw-arijilangwa*. Both words are formed by prefixing *ening-* ~ *enungw-* 'belonging' to the adverb.⁷³

d) *Adinakba* 'first'

The adverb *adinakba* 'first' carries the idea of preparation in readiness for a foreseeable event. In a non-future oriented society it is normally an event which is imminent.⁷⁴ Because of this specialised meaning it is not used as frequently as *adinuba-wiya* 'first'.

2.2.5 DURATION OF TIME

The suffix *-wiya* is added to *aduwaba* 'today' to give the meaning 'during the day', i.e. just for the day. The suffix *-ma* is added to *marringa* 'night ~ sleep' to give the meaning 'for the night, overnight'.

'For a little while' is expressed by the adverb *aduwaya*. 'For a long time' is normally expressed by idiomatic constructions formed by adding adjectival and pronominal prefixation to the adjectives *amiyerra* 'continuing' and *enungkwurakba* 'old'. *Ning-enungkwurakba*, literally 'I old', can mean 'I have been waiting for a long time'.⁷⁵

A similar construction is formed using *arngkawura* ~ *angkawura* 'once' to give the meaning 'always'.⁷⁶ In answer to the question 'Will he come back?' the answer *nening-angkawura* means that he has gone for good, i.e. for the foreseeable future, although in fact this could happen to be merely for a few months.

- 77 *numungkwulingu-wiya nakina* while he slept they speared him
nenar.dirranguma
- nambilyu-wiya ~ nenibu-wiya* while he was alive
niyukwujiyu-wiya while he was small
ningeningbalu-wiya while I didn't know
-
- 78 *ning-alilikenu...wa*
 I-went.went (see Appendix 1 for explanation
 'I kept on going.' of *alilikenu...wa*)
-
- ningarikumina wurdarriyuwiyu...wa*
 he.fished morning
 'He was fishing all the morning.'
-
- nilikena ngawa nakinu...wa*
 he.went still he
 'He kept on going.'
- 79 *ekbarra ambaka* the headache is still there
arukwa ambaka still raw
ardirdarra ambaka still hot (i.e. still too hot, so
 not cool enough)
angemina nalyubarinama ambaka he is still being suckled
- 80 *ningkenirringka ambaka?* Have you seen him yet?
nara ambaka kinirringka I haven't seen him yet
ningkenirringkama ambaka? Have you ever seen him?
nara kinirringka I've never seen him

a) The suffix *-wiya* 'while'

The suffix *-wiya* 'while' occurs on verbs in the past tense to describe the continuing action during which a past event took place. It also occurs on adjectives describing continuing states.⁷⁷ It is not used as frequently as 'while' is used in English. Note the phrase *naru-wiya* 'before (not while)' in section 2.2.2.

b) The suffix *-wa* 'extension of time'

The suffix *-wa* is added to a verb, adverb or pronoun in sentence final position to emphasise 'extension of time'. The final vowel *a* of the word to which *-wa* is added is replaced by *u* and it is long and drawn out. This is symbolised by the insertion of three dots (see Appendix 1).⁷⁸ Partial reduplication of the verb root may co-occur with this phenomenon and is underlined in the example. The tone is high throughout the word until the last syllable, which has a sharply falling tone.

c) *Ambaka* 'later', 'still'

The aspect in focus in this time word is a state which extends from the past into the present but normally anticipates change. In answer to a question such as 'Are you ready to go?' the answer *ambaka* 'later (soon but not yet)' may be given to delay the departure, even for only a short time. The idiom *ambaka jayi*, literally 'later away', is used as a delaying tactic, the equivalent of 'wait a minute'.

When waiting for an expected change the word *ambaka* is used where English uses 'still', sometimes meaning 'still too...', according to the context.⁷⁹

Although *ambaka* can be translated 'yet' and 'ever' according to the context, the negative construction *nara ambaka* 'not yet' implies the possibility of change and thus cannot be translated 'never'.⁸⁰

d) *Ngawa* 'still, enough'

The primary meaning of *ngawa* is 'still'. It is used when a change in the current situation or state has not taken place, is not expected and in fact is not warranted or required. This word is used when the positive aspect is implied by 'still ... enough' in English.

01	<i>ardirdarra ngawa</i>	still hot (enough)
	<i>eningaba ngawa</i>	still all right
	<i>nakina ngawa</i>	he's still there ~ he's still the same
	<i>neniba ngawa</i>	he's still alive
	<i>numungkwulinga ngawa</i>	he was still sleeping, he kept on sleeping
	<i>nuwaranga ngawa</i>	he still refused
82	<i>ena ngawa</i>	this is all
	<i>akinu-bu ngawu-da</i>	that's the end
83	<i>numebum<u>e</u>binuma</i>	he used to sing, he went on singing
	<i>numudum<u>u</u>dayina</i>	he kept paddling
	<i>nara kinawiyu<u>w</u>iyeba</i>	he never used to go inside
84	<i>nara alikanguma nakina</i>	he's not going
	<i>nara kinalil<u>i</u>kaja nakina</i>	he never goes

However, when the negative aspect is implied by 'still too ...' in English, the Anindilyakwa *ambaka* is used.

Note the use of *ngawa* with reference to continuing actions, often translating the English 'keep on ...'.⁸¹

Because of the positive implication of *ngawa* it is not used with *nara* 'not'. 'Not enough', in the sense of 'not cooked enough', is expressed positively using an opposite concept.^{79,81}

Ngawa 'enough' is used alone as a normal polite answer to such questions as 'Would you like something to eat?'. It is thus the equivalent of 'No thank you' in English but it is phrased from the positive point of view of a person satisfied with his present state.

The idiom *ningena ngawa*, literally 'I (this one) enough', is another polite expression. It is used in answer to such questions as 'Are you all right, i.e. comfortable?' when no change is needed.

The idiom *ngawa arakba*, literally 'enough now', is used as a command to stop an action, equivalent to 'that's enough!'.

Several idiomatic expressions occurring as closure of a discourse all include *ngawa* 'enough'. This extends the underlying implication of satisfaction with the status quo to a sense of finality.⁸²

e) Habitual and continuous action

Habitual action and action which takes place over a long period of time are signalled by repeating part of the verb root. The part of the word that is reduplicated has been underlined.⁸³

Except for one instance the pattern of prefixing and suffixing verbs is the same whether reduplication occurs or not. However when reduplication occurs on a verb in the present tense, in the negative mood, the past negative prefix is used with the present positive suffix instead of the normal present negative affixation.⁸⁴

In English 'never' is frequently used in the negative 'I never went ~ go, I will never go'. Compare the Anindilyakwa translation of 'I have never seen him' in example 80.

- | | | |
|----|---|--|
| 85 | <p>mebina ngawa!</p> <p>wijijirena ngawa!</p> <p>kinumak<u>u</u>makina ngawa!</p> | <p>keep on singing!</p> <p>keep on pushing it!</p> <p>always tell him! keep on telling him! (you will keep telling him)</p> |
| 86 | <p>naru-wiya kinambilya</p> <p>nirumungkwar.dinu-wiya arakba</p> <p>naru-wiya wiyerrirda</p> <p>nijerridu-manja yalyukwa</p>
<p>nuwambilyu-manja wurrakina</p> <p>yelakwa alukwanji-yada</p> | <p>before he was (born)</p> <p>when he was already crawling before the cyclone</p> <p>when the rain finished (at the end of the wet)</p>
<p>when ~ while they were here for the dancing</p> |

Commands to keep doing something habitually or continuously are translated by the future tense in Anindilyakwa unless the action to be continued is already in progress when the imperative is used, sometimes with reduplication.⁸⁵ However the verb *-likaja* 'go' never takes reduplication in the imperative.

2.2.6 INTRODUCED TIME WORDS

Names for the days of the week and the months of the year have been borrowed from English, in addition to the terms 'week' and 'Christmas' (used for 'year'). 'Sunday' is sometimes used for 'week'. All these words have been introduced into the a noun class.

Old people today differentiate between certain days of the week. The days Monday, Tuesday and Wednesday are described as *aruma*, literally 'big', but Thursday and Friday are described as *ayukwujiya*, literally 'little'. Because pension cheques arrive on Thursdays, on the previous day one can ask one of the old women the following question:

arnungkwaya ayukwujiyu-manja na?
tomorrow little-on interrogative

This question will be interpreted as 'Tomorrow is Thursday, pension cheque day, isn't it?'. When Thursday comes, the old women frequently say, '*aduwaba ena ayukwujiya*', literally 'today this little'.

2.2.7 EVENTS AS TIME MARKERS

Time is related to events and life-stages, for which the Aborigines have very keen memories. Important events are used to mark the time when events of minor significance are described. Events are also described as taking place during a certain person's life-time, before so and so was born, after so and so died, and so on.⁸⁶ My *kayuwa* 'dilly-bag', made by one of the women some years ago and still in use, is frequently commented on in the following way:

'So and so made it while her mother (now deceased) was still strong.'

(See section 2.2.2 for more examples.)

2.2.8 VERB TENSE AND MOOD

a) Present and future tenses

English speakers use the present tense with future meanings, e.g. 'I am going to Darwin next week'. English also uses the present tense in such phrases as 'he runs fast' and 'he can skip'. Anindilyakwa

- 87 *ambakilangwa nilikajama* *kinilikajama Darwin-uwa arnungkwaya*
 slowly he.goes he.will.go Darwin-to tomorrow
 'He's walking slowly.' 'He's going to Darwin tomorrow.'
- angwurra kinangkarrinama* *kinilukwayinama nakina*
 fast he.will.run he.will.dance he
 'He runs fast ~ he can run fast.' 'He will dance ~ he can dance.'
- 88 *ku-wurdenama ngayuwa angabu-manja eka*
 I.will-climb I that-in tree
 'I will climb that tree.'
- ngayembirra ku-wurdiya?*
 I.in.turn I.will-climb (near future)
 'Shall I climb now?'
- 89 *ningijerrukwa* I finished (one form only)
ningidaka I cooked (one form only)
ningiyar.da I arrived (near past)
ningiyar.danga I arrived (normal past)
- 90 *ebinu-wiya niyar. danga nakina* he arrived the other day
nara kiniyar.danga he didn't arrive
naru-maka kiniyar.danga aduwaba he should not have arrived today
Ngambiyada niyar.danga? when did he arrive?
- 91 *yarrungkwa niyar.danga ~* he arrived here yesterday
niyar.da nakina yelakwa
yarrungkwa niyar.danga nakina he arrived here on foot yesterday
yelakwa alika-ma
yarrungkwa niyar.da nakina he arrived here yesterday in
yelakwa larruwuri-langwa the afternoon
nalikena arakba adinuba wurrakina they have just gone

is more precise and normally limits the use of the present tense to events happening at the present time, using the future tense for all other situations.⁸⁷ There are two forms of future tense, one of which refers to the near future only.⁸⁸

b) Past tense

There are usually two forms of the past tense. One has been labelled the 'normal past' and the other has been labelled the 'near past'.⁸⁹ The normal past tense is more common than the near past. It always occurs in the negative and subjunctive moods, and normally in the interrogative mood.⁹⁰

The near past tense occurs describing some actions which have taken place within about the last twenty-four hours. The choice of the form of the past tense depends on whether time is in focus or not. If time is in focus, then the near past is used. In the examples, the action took place during the last twenty-four hours and in each case a time word is included. The normal past tense is used for the verb 'go' regardless of focus.⁹¹ The near past tense is underlined in each example.

- 92 *nalawurradina angalyu-wa* they went (returned) home
nardanga nakina wurruwardu-wa biya he called out to the dog and
nalawurrada aburraja enuwa-wa it came straight back to him
niyar.danga nakina mijiyelyi-langwa he arrived from the beach and
biya waranjubawiya nilika ~ went quickly to the old woman
nilikena dadiyuwangku-wa before he had anything to eat
naru-wiya kinalyubarina aninga
ngangkarrina nakina mangabu-langwiya he ran to school along that path
mamurukwa school-uwa
nardanga neniyuwangkwa biya eneja the old man called out and the
niyukwujiya ngankarra child ran away
- 93 *lukwayina!* dance! (one form only)
alyubarina! eat! (one form only)
angkarrina! run!
ngankarra! run immediately!
lawurradina! return!
lawurrada! return immediately!
wumena! take it!
wumiya! take it immediately! pick it up!
- 94 *ki-likaja adinuba hospital-uwa*
you.will-go soon hospital-to
'Go to the hospital soon.'
- 95 *wumiya bangkilya akwa ridiya ena* take the tomahawk and chop this
eka enu-wiya tree straight away
wumiya bangkilya akwa kiridiya take the tomahawk and chop that
angaba eka tree over there
wumiya ~ wumena ~ kumiya bangkilya take my tomahawk and (then) chop
nganyangwa biya kiniridiya that cypress over there this
yangaba yimundungwa larruwura afternoon

In a narrative the normal past is used except when the near past tense focuses on a short interval of time between consecutive actions. The use of the near past for the verb 'go' is legitimate but not favoured by young people today.⁹²

c) Imperative mood

Verbs in the imperative mood often have two forms. The difference in meaning between the two forms is that one of them anticipates a more immediate response and so is also used for peremptory commands.⁹³ In English the imperative mood, like the present tense, can refer to the future, but in Anindilyakwa the imperative mood cannot refer to the future.⁹⁴

When two commands are given, the imperative is used for both commands when an immediate response is required. When any interval of time is involved, the future tense may be used for one or both commands. The immediate imperative has been underlined in the examples.⁹⁵

- 96 *adinubawiya kijerrukwuna warka nungkwulangwa kembirra*
 first you.will.finish (complete) work your then
arijilangwa kilikaja erreku-wa
 afterwards you.will.go outside-to
 'Finish your work and then go outside.'
- 97 *akwudangwe-ka ~ akwu...dangwa* very near (see Appendix 1)
akwudangwa near
awank-akwudangwa not far away, quite near
wilyarra part-way
awank-engku-manja ~ awank-engku-wa rather a long way off
awanku-wilyikerra ~
awanku-wurrikalya
engku-manja ~ engku-wa far away
awilyikerra ~ awurrikalya
engku-manje-ka ~ engku-we-ka very far away
awilyikerre-ka ~ awurrikalye-ka
- 98 *wurrangamba? engku-wa wurrakina* where are they? they are a
 long way off
engku-manja nuwambilyama they live far away
murungwena akwudangwa makina the jungle is nearby
murungwena muwank-akwudangwa the jungle is quite near
murungwena muwilyikerra the jungle is far away
wurruwilyikerra warnumamalya the people are far away
- 99 *likaja engku-wa angwurra!* go further away!

The teacher who says 'Go outside when you finish writing' should not be surprised if the children jump up and go straight outside, especially as the English word 'finish' is usually interpreted as a completed action rather than an action requiring completion. An Anindilyakwa speaker would be more likely to say something such as 'Finish your work and then go outside'.⁹⁶

2.3 DISTANCE

Time and distance are closely connected, e.g. 'As far as Darwin' is only another way of saying, 'until one has reached Darwin'. A short distance means that a short time is required to cover that distance. Thus *arnγκidarrba* 'soon' is also used for 'near' and *akwudangwa* 'near' is also used for 'soon'. Similarly *yandi-langwa*, 'until' in a time phrase, translates 'as far as' with reference to distance. In English the underlying link between time and distance is less explicit.

The basic terms to describe positions of relative distance are the adverb *akwudangwa* 'near' and the adjectives *awurrikalya* ~ *awilyikerra* 'far away'. *Engku-manja* 'in another place' is also used for 'far away'. *Engku-wa* 'to another place' can be used for 'in another place' and thus for 'far away' in addition to its literal meaning. The adjectival prefix *awank-* 'rather' and the emphatic suffix *-ka* occur in the comparison of distance which is listed opposite.⁹⁷ Note the noun class agreement in the use of these words.⁹⁸ The intensifier *angwurra* 'more' may be used with *engku-wa* 'far away' to indicate 'further away'.⁹⁹

The English term 'half-way' is often used by Aborigines speaking English, but as this is used in the sense of 'part-way' it can be very misleading when giving directions. (See the reference to 'part of' in section 1.2.3.)

Verbs of motion have certain features added to express a great distance and thus a great length of time (see section 2.2.5).

- 100 *mijiyelyu-manja wurrakina*
 beach-at they
 'They are at the beach.'
- akwalya makardu-manja*
 fish sea-in
 'The fish is in the sea.'
- akwalya angwuru-manja*
 fish fire-on
 'The fish is on the fire.'
- angwuru-manja dakina*
 fire-by she
 'She's by the fire.'
- 101 *arumu-manja alikira nakina*
 big-in house he
 'He's in the big house.'
- 102 *angabu-manja alikira arumu-manja ~* they're in that big house
aruma wurrakina
- awilyabu-manja alikira arumu-manja ~* they're in one big house
aruma wurrakina
- enungkwurakbu-manja alikira* they're in the big old
arumu-manja ~ aruma wurrakina house
- 103 *ningiyar.danga nuwambilyu-murru-manja*
 I.arrived they.stayed-statement.of.fact-at
 'I arrived where they were staying.'
- ningambilya nuwambilyu-murru-manja*
 I.stayed they.stayed-statement.of.fact-at
 'I stayed where they were staying.'

2.4 POSITION

2.4.1 STATIONARY POSITION

Some people in cities can list long lists of railway stations in their order. In just the same way, one old woman recited to me over a hundred names of places in their order along a section of the coast of Groote Eylandt. The whole island is a network of named places.

The importance of kinship ties and avoidance rules necessitates continual observation of the position of people. An account of past events demonstrates this precise awareness of position. The description of a school camp will probably include a detailed account of who slept next to whom.

The concept of stationary position in Anindilyakwa is expressed in various ways, including suffixing, adverbs and adjectives.

a) The suffix *-manja* 'at, in, on, by'

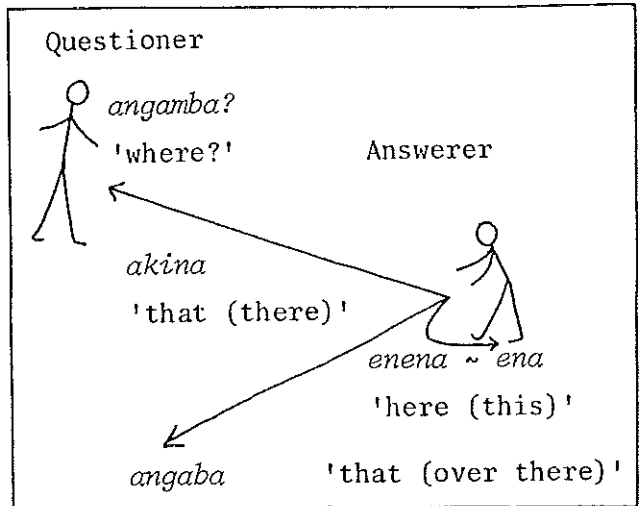
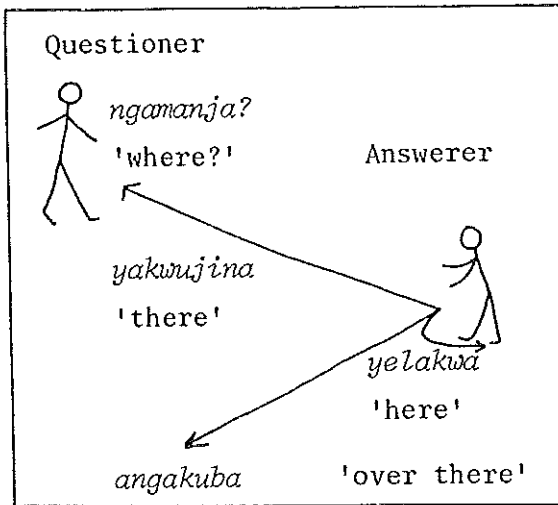
The one suffix *-manja* translates the following English prepositions: 'at', 'in', 'on' and 'by'. The exact meaning is made clear by the context.¹⁰⁰ Compare the English 'at the shop' which can mean 'in' and 'near'.

When a noun is qualified by an adjective, the suffix is attached to the adjective instead of to the noun.¹⁰¹ When a noun is qualified by a demonstrative or a numeral adjective as well as by a descriptive adjective, the suffix is attached to the demonstrative or numeral adjective which precedes the noun, or to both. When a noun is qualified by two descriptive adjectives, one precedes and takes the suffix and the other follows the noun with or without the suffix.¹⁰²

b) The combined suffixes *-murra + -manja*

Note the combination of suffixes *-murru-manja* 'statement of fact + at' occurring on verbs. This construction translates the English 'where', or 'at the place where.'¹⁰³

104 *kuwambilyama wurrakina yilyaku-murru-manja*
 they.will.stay they wild.honey-having-at
 'They'll stay where there's wild honey.'



Adverbs

Question:

nga-manja jurra ningkakumarnuma
 where-at book you.put
 'Where did you put the book?'

Adjectives

Question:

angamba jurra
 where book
 'Where is the book?'

The combination of suffixes *-murru-manja* occurring on nouns translates the English 'where there is', or 'at a place where there is'.¹⁰⁴ This construction has been translated 'having + at' because it parallels such possessive phrases as:

ni-jinabu-murra nakina

he-gun-having he

'He has a gun.'

c) *Nga-manja* and *angamba* 'where (in what place)?'

There are two words for asking the question 'where?'. In Anindilyakwa *nga-manja* 'where?' is adverbial and *angamba* 'where?' is adjectival. The two diagrams opposite illustrate the use of the appropriate adverbial and adjectival forms for asking and answering the question 'where?'. (The two people depicted in these diagrams are talking to each other. They are separated by some distance. The answers are explained under the diagram.)

d) Adverbs and adjectives of place

The basic words for 'here' are the adverb *yelakwa* and the demonstrative adjective *enena* ~ *ena*. The basic words for 'there' are the adverbs *yakwujina* and *angakuba* and the demonstrative adjectives *akina* and *angaba*.

In the opposite diagram the answers *yelakwa* and *enena* refer to an object close to the person answering the question 'where?'. The answers *yakwujina* and *akina* refer to an object close to the person asking the question, and the answers *angakuba* and *angaba* refer to an object at a distance from both speakers.

If two people are close together, *yakwujina* and *akina* 'there' refer to a short distance away, and *angakuba* and *angaba* 'there' refer to a distance further removed from the speakers.

The demonstrative adjectives can also be translated 'here it is' etc., in which case they can be appropriate answers to the question *ngamanja ningakumarnuma* 'Where did I put it?'.
v

- 105 *ningambilyu-manja ngayuwa* when I was in Darwin I saw him
Darwin-manja ningenirringka there
angakuba ~ yakwujina
- 106 *angamba jurra nungkwulangwa?* where's your book?
angalyu-manja angakuba-wiya it's at home (I left it there)
angamba jurra nganyangwa? where's my book?
angalyu-manja yakwujinu-wiya it's at home (I saw it there)
- 107 *ababurna amurndakijika shop-manja* there are a lot of things displayed
awurrekerrekba in the shop
- 108 *alikiru-manja arrawa* inside the house
nangamba? arrawu-manja ~ arrawa where is he? inside

The adverbs *yakwujina* and *angakuba* 'there' can also refer to a position out of sight and are interchangeable in some contexts.¹⁰⁵ Note the difference of perspective, however, in the sentences containing *yakwujinu-wiya* and *angakuba-wiya*.¹⁰⁶

In answer to the question *dangamba?* 'Where is she?' the reply *dangaba-wiya ~ angakuba-wiya angalyu-manja* 'She's at home' can be given by someone who knows, having come from the same place. It means in effect 'I've left her there ~ she was there when I left'.

Arrawa means 'inside' and also 'below, down low, beneath, underneath'. The two meanings for the one word did not cause confusion when they were used in context in pre-technological days. At that time there was nothing a person could get inside as distinct from underneath, like the buildings and vehicles of today. To sit inside and underneath a shelter were one and the same. To be inside a cave meant to be underneath the overhanging rock. People sit beneath the trees but not inside them. Eggs are always found inside the nest and not beneath. People are normally inside a canoe and fish in the water below - unless the canoe is high and dry, in which case one does not expect to find either people or fish underneath! Examples could be multiplied. In other words, the context made the intended meaning plain.

The word *errekba* 'outside' is interesting because of its association with the jungle. It means in the clear area away from thick growth, and by extension today it means outside buildings etc. The adjective *awurrekerrekba* 'out in the open, on display' is used by old people referring to people and things in the plural.¹⁰⁷

Arrawa and *errekba* optionally take the suffix *-manja* 'at, in, on, by' when a noun is absent.¹⁰⁸

Karrawara ~ abalkaya can be translated as 'up high' and 'on top' as well as 'above'. 'Very high' and 'right up on top' are expressed by the words *karrakarrawara*, *karraware-ka* and *abalkaye-ka*.

- 109 *mirriku-wilyarra murungwenu-manja*
jungle-middle jungle-in
 'in the middle of the jungle'
- 110 *eningu-wilyarra alikira* the middle house
- 111 *mambilyuma diraka marndadikena ~*
marndadikakena two trucks side by side
ngayuwa arndadikena ~ arndadikakena I was on the side of the truck
ningambilya diraku-manja
mema cup marndadikena nganyangwa, the cup on this side is mine,
makina marndadikena ngalilangwa the one on that side is hers
umba memingu-wilyarra and the one in the middle is
nungkwulangwa yours
- 112 *yaliniyalina nalikena enuwa-manja* they walked along each side of
 him
yaliniyalina miyangkidirrbura the straight sides of the canoe
malamukwa
- 113 *Emeda adadibina umba Angurrkburna* Lake Emeda is on this side and
alalubaja Lake Angurrkburna is on the
 other side (i.e. further
 away from here)
neniyuwangkwa adadibina umba the old man is on this side and
niyukwujiya alalubaja the little boy is on the
 other side (i.e. further away
 from here)

The adverb *wilyarra* 'between, in the middle' describes any position within a circle and also between two extremities, either vertical or horizontal. It also occurs with a number of prefixes which represent nouns.¹⁰⁹ (See Appendix 2 regarding noun prefixation.) An adjective is formed from the adverb by the addition of the prefix *eningu-* 'belonging'.¹¹⁰

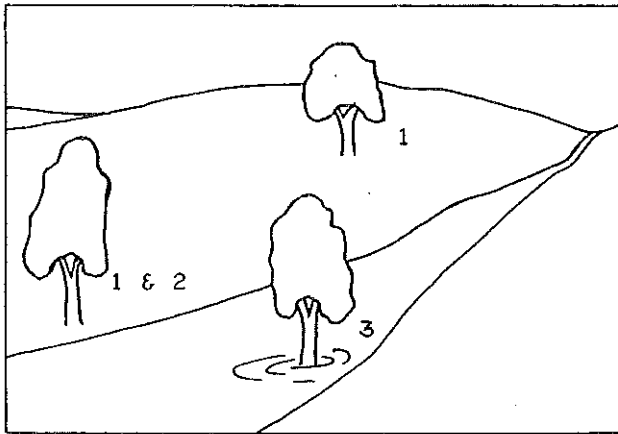
Arndadikena ~ *arndadikakena* 'side by side, at one side, on the side' is a compound word formed from *arnda* 'elbow'. It describes the position of a person in relation to an object or of one object in relation to another object but does not describe two people 'side by side'. This word is invariable when the focus is on the position of the person, but adjectival when the focus is on the object.¹¹¹

The adverb *yaliniyalina* 'on each side' describes a position with reference to people and vertical objects. By extension it refers to the two sides of a canoe or two opposite walls of a building but not to all four walls.¹¹²

The adverbs *adadibina* ~ *adibina* 'on this side' and *alalubaja* ~ *alubaja* 'on the other side' refer to positions with respect to people, things and places.¹¹³ They can occur alone in answer to questions.

114 ayak-adibina ~ ayaki-lada
 ayak-alubaja ~ ayaku-warra

on this side of the river
 on that side of the river



1. eka ayaku-bidjina adalyumu-manja
 tree river-beside river-at
2. eka arndadikena adalyumu-manja
 tree at.the.side river-at
3. eka ayaku-wilyarra adalyumu-manja
 tree river-middle river-at

(The numbers of the examples refer to the positions of the trees in the sketch.)

115 ningumurndadina ningena
 ningangmakwulalu-baba
 angwurrkidirrburu-baba edirra
 malamukwa mangaba nara
 angwurrkidirrbura angkayuwaya
 makina umba mungwurrki-dirrbura
 muwarraku-manja makina

I was cold because I was
 sitting opposite the door

the canoe over there isn't
 opposite the tamarinds but
 it's opposite the casuarina
 trees

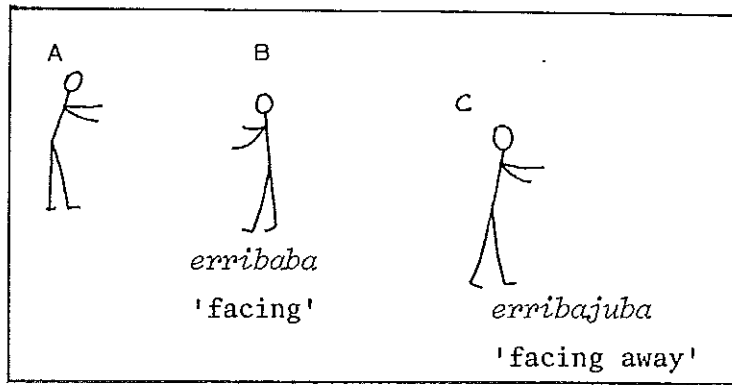
These words also refer to specific objects when prefixes are added representing nouns.¹¹⁴

The same positions can be described by the adverbial roots *-lada* 'on this side' and *-warra* 'on that side'. These can only be used with prefixes representing nouns.¹¹⁴

The root *-bidjina* ~ *-bijina* 'beside ~ near' cannot be used alone. This root and the roots *-lada* and *-warra* described above are complicated by having a number of prefixes added which represent nouns and therefore do not generally occur in the vocabulary of small children.

The opposite diagram shows how the general suffix *-manja* 'at, in, on, by' occurs supplemented with more specific expressions.

When referring to position in relation to something inanimate, 'opposite' is translated by the adjectives *angwurrki-dirrbura* and *angwurrku-wiyida*. They are formed from the adjectives *adirrbura* and *awiyida* 'straight' which are prefixed by the morpheme *-ngwurr-* representing *edirra* 'hole, mouth'.¹¹⁵ When a boat's position is opposite a particular landmark, the word 'opposite' agrees with the noun class of that landmark.



- 116 *yingangmakwulaluma yingabuluwenduma* she sat there with her head
yakwujina down
wabuluwendijiya jurra (bajikala) turn over the page ~ book
 (tin)
mabuluwendijiya makina malamukwa tip the canoe over
- 117 *nalyilyaduma nakina eku-manja* he was hanging from the tree
ayarrku-murra by his hands
yerrerra nalyilyaduma alikiru-manja the ladder was leaning against
 the house
- 118 *nilikena alikira-wa* he went to the house
nilikena aruma-wa alikira he went to the big house
nilikena angaba-wa alikira he went to that big house
aruma-wa ~ aruma
nilikena awilyaba-wa alikira he went to one big house
aruma-wa ~ aruma
nilikena enungkwurakba-wa alikira he went to a big old house
aruma-wa ~ aruma

When referring to position in relation to people, 'opposite' is translated by the adverb *erribaba* as indicated by the opposite diagram. The person labelled B is facing towards a person labelled A, that is they are opposite one another. The person labelled C is facing away from the person labelled A. This position is described by *erribajuba* 'facing away'.

e) Verbs indicating position

There is a special term for people and animals facing each other, being opposite one another. This position is expressed by a verb, e.g. *yikirukwayina* 'we sat opposite each other'.

The English adverbs 'upside down' and 'head down' are rendered by a verb in Anindilyakwa. This includes any position with the head lowered, from ducking down to standing on one's head. It also translates the action of tipping or turning things over when the causative suffix *-ji-* is added, as underlined in examples 116.

The two English concepts 'hanging' and 'leaning' are translated by one verb in Anindilyakwa.¹¹⁷

2.4.2 MOTION TOWARDS

a) The suffix *-wa* 'to'

The suffix *-wa* describes motion towards objects, people and places. When a noun is qualified by an adjective, the suffix is attached to the adjective instead of to the noun, as is the case with the suffix *-manja* 'at, in, on, by' (see section 2.4.1).¹¹⁸

Sometimes *-wa* 'to' in Anindilyakwa translates the English 'from', as in the following example:

wankirna aninga alikira-wa
fetch food house-to

'Fetch the food from the house.'

Sometimes *-wa* 'to' occurs on a noun as an alternative for the suffix *-yada* 'purpose' and translates the English 'for', as in the following example:

likaja erriberriba-wa mangkarrkbu-wa ~ mangkarrkbi-yada
go bush-to plum-to plum-for

'Go to the bush for plums.'

- 119 *ningilikena nuwambilyu-murru-wa wurrakina*
 I.went they.stayed-statement.of.fact-to they
 'I went to the place where they were staying.'
- 120 *nara alikanguma dingarrbiyu-murru-wa*
 not go crocodile-having-to
 'Don't go where there are crocodiles.'
- 121 *kwa ~ likaja yangkwurrangwa!* come here!
likaja angerriba! go over there!
- 122 *ngilikaja-wiya angerriba umba yibarringkinama yangkwurrangu-murru-wa*
 let.me.go-just to.there but I.will.see.you to.here-fact-to
 'Let me just go over there. I'll see you when I get back.'
- erribulena kumambarrinama Gove-manja yangkwurrangu-murru-wa*
 plane it.m.will.sit Gove-at to.here-fact-to
 'The plane will stop at Gove on the way here.'
- wulalika akina eka yiridena yangkwurrangu-murru-wa*
 it.a.leave that tree we.will.chop to.here-fact-to
 'Leave the tree. We'll chop it on the way back.'

b) The combined suffixes *-murra + -wa*

The combination of suffixes *-murru-wa* 'statement of fact + to' occurs on verbs. This construction translates the English phrase 'to where' and parallels *-murru-manja* 'where' (see section 2.4.1).¹¹⁹

The suffixes *-murru-wa* occurring on verbs of motion have the meaning 'before' (see section 2.2.2).

The combination of suffixes *-murru-wa* occurring on nouns and translated 'having-to' parallels *-murru-manja* 'having-at' (see section 2.4.1).¹²⁰

c) *Ngambu-wa* 'to where?'

The interrogative 'to where?' is *ngambu-wa?* This word is often used for the English '(at) where?' with reference to people, e.g.:

ngambu-wa nakina? 'Where is he? (To where has he gone?)'

Ngambu-wa? 'to where (are you going)?' is frequently used as a form of greeting at any time of day to initiate conversation.

d) Adverbs indicating Motion towards

The basic term for the direction 'to here' is *yangkwurrangwa* and the term for 'to there' is *angerriba*.¹²¹ *Yangkwurrangu-wiya* is a request for someone to come closer to the speaker.

Yangkwurrangwa 'to here' also occurs with the suffix combination *-murru-wa* with the sense of 'on returning to this place'.¹²² The English 'on the way back' reflects a different point of view, with the focus on the whole journey rather than the position of the speaker.

The adverbs *arrawa* 'inside, below', *errekba* 'outside' and *karrawara ~ abalkaya* 'above' all obligatorily take the suffix *-wa* 'to' when motion towards is intended.

- 123 *nalikenuma alikiri-langwa* they came from the house
nalikenuma arumu-langwa alikira they came from the big house
nalikenuma angabu-langwa alikira they came from that big house
arumu-langwa ~ aruma
nalikenuma awilyabu-langwa alikira they came from one big house
arumu-langwa ~ aruma
nalikenuma enungkwurakbu-langwa they came from a big old
alikira arumu-langwa ~ aruma house
- 124 *angambu-langwa angalya* what country do you come
ningilikarnuma from?
karnungwambu-langwa where have you been?
- 125 *numulikajama erribaja diraka* the truck is going away in the
opposite direction
numulikajama angerriba alikiru-wa the truck is going over there
diraka to the building
- 126 *Adinubawiya ningilikena Darwin-uwa* first I went to Darwin and
kembirra yadikina ningilikena from there I went to
Sydney-uwa Sydney

2.4.3 MOTION FROM

a) The suffix *-langwa* 'from'

The suffix *-langwa* 'from' describes motion from objects, people and places. When a noun is qualified by an adjective, the suffix is attached to the adjective instead of to the noun, as is the case with the suffix *-manja* 'at, in, on, by' (see section 2.4.1).¹²³

b) *Ngambu-langwa* 'from where?'

The interrogative 'from where?' is *ngambu-langwa*. It is sometimes used to initiate conversation, but less frequently than *ngambu-wa* 'to where?' (see section 2.4.2). Adjectival and pronominal prefixes may be added to *ngambu-langwa*.¹²⁴

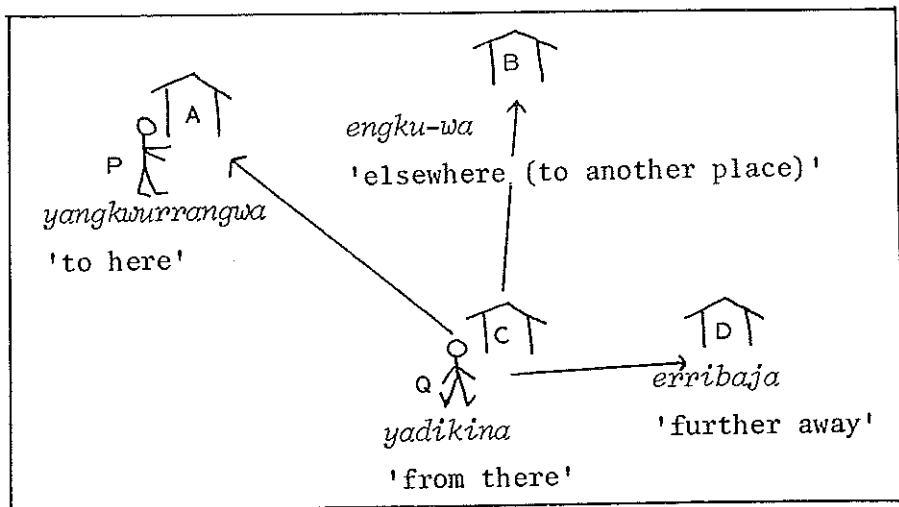
c) Adverbs indicating motion from

The adverb *erribaja* 'away' describes motion away from the speaker without reference to destination, as distinct from *angerriba* 'to there'.¹²⁵

Erribaju-wiya is used as a command to move away from the speaker.

The adverb *yadikina* 'from there' describes motion of a person or an object away from a place which is distant from the speaker. The movement can be in any direction.¹²⁶ The adjective *eningi-yadikina* 'coming from there' also occurs.

127 *nenikaduwa nakina neningi-yadikina nungwarrka*
 he.new he he.belonging-over.there father.my
 'My father had just arrived from over there.'



In the above diagram, A, B, C and D represent places. P and Q represent people.

When Q goes away from C to D, P says:

yadikina nilikajama erribaja D-wa He is going from there
 further away to D

When Q goes to B, P says:

yadikina nilikajama engku-wa B-wa He is going from there to B

When Q comes to A, P says:

yadikina nilikajama yangkwurrangwa He is coming here from there

The adverbs *arrawa* 'inside, below', *errekba* 'outside' and *karrawara abalkaya* 'above' all obligatorily take the suffix *-langwa* 'from' when motion from is intended.¹²⁷

The diagram opposite illustrates three types of movement as expressed in Anindilyakwa.

- 128 *nijadanga arrawu-langwa* he appeared from inside
ngambu-langwa? Karrawari-langwa where did it come from?
from above
- 129 *nilikena mamurukwu-langwiya* he went along the road
nilikena mabulali-langwiya he went through the shallow
water (sea)
numangkarrina karrawari-langwiya it (the plane) flew high in
the air
marndekirriyerra numudirrirndama the yam went down through the
mamungwunyi-langwiya mamudangkwa soft sand
ningilukwamurrkwaja aliki-langwiya I followed the footprints
- 130 *nilikena mamurukwu-langwiya* he went along the path
nilikena miyukwujiya-langwiya he went along the little
mamurukwa path
nilikena mangabu-langwiya mamurukwa he went along that little
miyukwujiya ~ miyukwujiyi-langwiya path
- 131 *kilikajama yada nara yadikina* you will go this way, not
that way
yibilyubilya nilikena yadi-langwiya the lightning came this way
ngaya memu-manja yadi-langwiya ngilikajama ningena ...
I this-on here-along let.me.go I
'Let me go along this (path), ...
nungkwaja makinu-manja mayuwarna yadikini-langwiya likaja
you.emph that-on follow.it there-along go
while you go along that one.'

2.4.4 MOTION ALONG A ROUTE

a) The suffix *-langwiya* 'along'

The suffix *-langwiya* describes motion along a route, whether that route is on the ground, through a tunnel, in the water or in the air.¹²⁸ It may be added to words which already imply motion in order to focus on the concept of 'along a route'.¹²⁹

When a noun is qualified by an adjective, the suffix *-langwiya* 'along' is attached to the adjective instead of to the noun, as is the case with the suffix *-manja* 'at, in, on, by' (see section 2.4.1).¹³⁰ The numeral adjective is unlikely to occur.

b) *Ngambu-langwiya* 'along where?'

The interrogative 'along where?' is *ngambu-langwiya*. It is not as commonly used as *ngambu-wa* 'to where?' or *ngambu-langwa* 'from where?'.

c) Adverbs indicating motion along a route

The adverb *yada* ~ *yadi-langwiya* 'this way' describes a specific route straight ahead of the speaker. *Yadada* 'this way' occurs alone in answer to a question, and in indicating direction immediately ahead in the context of searching out a convenient path. *Yadikina* (literally 'from there') and *yadikini-langwiya* both mean 'that way'.¹³¹

Yada ~ *yadi-langwiya* 'along here' and *yadikina* ~ *yadikini-langwiya* 'along there' refer to the direction 'from elsewhere to here' as well as 'away from here'. The apparent confusion is probably connected with the fact that the verb stem *-likaja* means 'coming' as well as 'going'. In practice the context always clarifies the situation.

Yadi-langwa ~ *yadi-langwu-langwa* 'from this way' can also be translated 'this way' (see section 2.4.5).

- 132 *nilikarnu-manja yangkwurrangwa (angerriba) nirringka lukwakwa*
 he.went-when to.here (to.there) he.it.y.saw on.the.way
yaraja
goanna
 'He saw a goanna on the way here (there).'
- yukwu-langwa aninga kalyubarini-yada lukwakwa* give me food to eat on the way
- 133 *likaja dirrbura ~ muwiyida* go straight ahead along
memu-langwiya mamurukwa this road
- nerrikba malarra dirrbura ~ muwiyida yaraju-wa* he threw the stone straight at the goanna
- kalikajama adalyuma dirrbura ~ awiyida angerriba awuruku-wa* the river goes straight ahead to the billabong
- likaja dirrbura ~ ningkuwiyida angalyu-wa!* go straight home!
- 134 *numangkarrina arrawu-langwiya* it (the plane) flew very low
- 135 *likaja yangkwurrangwa ~ kwa* come here!
likaja yangkwurrangwa!
- kwa likaja ngayuwa-wa!* come to me!
- likaja enuwa-wa ~ jaya likaja enuwa-wa!* go to him!
- likaja angerriba ~ jaya likaja angerriba!* go over there!
- 136 *Perth-langwa ningkilikarnuma nungkuwa ambaka* have you ever been to Perth?
- ngambu-langwa? mijiyelyi-langwa* where have you been (to)?
 I've been to the beach
- 137 *ayukwujiya angalya nuw-akwudangwu-dina*
 small place it.a -near-became
 'A small village came near, i.e. they came near a small village.'

The adverb *lukwakwa* 'on the way' refers to any direction.¹³²

The adverb *dirrbura* and the adjective *awiyida* 'straight' are used for the direction 'straight ahead'. *Dirrbura* is more common than *awiyida*. The direction is along a route but the position of the speaker is not involved and the end rather than the starting point is in focus. In English the concepts of direction and time are linked in the command, 'Go straight home', and the same connection is drawn in Anindilyakwa.¹³³

The adverbs *arrawa* 'inside, below', *errekba* 'outside' and *karrawara abalkaya* 'above' all take the suffix *-langwiya* 'along'.¹³⁴

2.4.5 'COME AND GO'

The verb root *-lik-* is a generic term meaning both 'come' and 'go'. It is connected with the noun *alika* 'foot'. Originally it must have meant 'walk'. It does not specify the direction, so this must be either added or implied from the context.

Kwa 'come' and *jaya* ~ *jayi* ~ *juyi* 'away' are used in conjunction with *-lik-* 'go' and alone.¹³⁵ When *jayi* is used to conclude a conversation it may appear abrupt but is not impolite.

Sometimes *-langwa* 'from' in Anindilyakwa translates the English 'to'.¹³⁶

Another contrast between the viewpoint of English and Anindilyakwa speakers is in the use of the adverb *akwudangwa* 'near' with the verbal suffix *-dina* 'become'.¹³⁷

In a situation where a person is feeling his way from rock to rock across a stream he might ask *ngambu-langwa?* 'where from?'. An English speaker might say 'Where to next?' thinking of the direction to the opposite bank. The answer in Anindilyakwa might be *yadi-langwa* ~ *yadi-langwu-langwa* indicating the next step. In this case it would seem that the Anindilyakwa speaker is thinking of the route to be followed as coming from a certain direction rather than heading in that direction.

Do these examples illustrate an Aboriginal point of view in which paths lead towards the individual, and the world is seen as advancing towards him? Consider the situation before there were any made paths through the undergrowth. One might speculate that a

138	<i>mekbuda mada</i>	the right ear
	<i>yekalyarra ~ yekawarriya yina</i>	the left knee
	<i>mekbuda mijiyanga</i>	the starboard side of the boat, the boat on the right
	<i>mekalyarra ~ mekawarriya mijiyanga</i>	the port side of the boat, the boat on the left
139	<i>mekbudi-langwa mada</i>	on my right ear
	<i>mekbudi-langwa mijiyanga</i>	on the starboard side of the boat
140	<i>ningekalyarra ~ ningekawarriya</i>	the left side of my body
	<i>ningekbuda</i>	the right side of my body
	<i>ningkekbuda ningkakina</i>	you are right handed
	<i>ningekbudi-langwa nakina</i>	he is on my right
	<i>ningekalyarri langwa ~ ningeka warriyi-langwa nakina</i>	he is on my left
	<i>nekbudi-langwa ningena</i>	I am on his right
	<i>dekbudi-langwa ningena</i>	I am on her right
141	<i>likaja ningkekbudu-wa</i>	go to your right

person heading in a certain direction anticipates the best way forward as regards swamps, rocks and any other terrain that would impede progress. He can see the track immediately in front of him, although so ill-defined that the untrained eye may not discern it at all. He is interested in the unseen distance and the water, food or similar goal from which a track of some sort leads to himself.

2.4.6 LEFT AND RIGHT

The adjectives *ekbuda* 'right' and *ekalyarra* ~ *ekawarriya* 'left' are used with various parts of the body and also with non-human nouns and agree with the nouns they qualify.¹³⁸

These adjectives with the suffix *-langwa* describe the positions 'on the right', 'on the left', and 'on the starboard side', 'on the port side'.¹³⁹ The suffix *-manja* 'on' cannot be used here.

Pronominal prefixes are added to *ekbuda* 'right' and *ekalyarra* ~ *ekawarriya* 'left' with reference to the whole of the right and left sides of the body. A person who is right-handed is described as using the right side of the body. This concept maintains the usual connection between right-handedness and right footedness.¹⁴⁰

In English the directions 'to the right', 'to the left' are often impersonal. In Anindilyakwa they are always personal. 'Go to the right' must be translated 'Go to your right'.¹⁴¹

In addition to 'left' and 'right' there is an Anindilyakwa expression for 'one side' which refers particularly to trees, but which is associated with one side of the body. The prefix *-ngamba-* which represents the noun *yingamba* 'groin' occurs in the verb *wu-ngamba-kbijangina*, literally 'jump one side', i.e. climb up the tree, using hands and feet, and so clinging to one side of the tree.

2.4.7 FRONT AND BACK, EAST AND WEST

The term for the front of the body, *angengkuwa*, is connected with the verb stem *-ngengkuwangina* 'breathe'. The focal point of breathing is not taking air through the nose but the expansion and retraction of the chest. The expressions for the front or palm of the hand and the bottom or sole of the foot are compounds made from

142	<i>amungengkuwa ayarrka</i>	palm of the hand
	<i>amungengkuwa alika</i>	sole of the foot
	<i>amurirrba ayarrka</i>	the back of the hand
	<i>amurirrba alika</i>	the upper part of the foot
143	<i>warrijiya amarru-wa nara</i>	wind it forwards, not backwards
	<i>amudakbu-wa</i>	

angengkuwa. The expressions for the back of the hand and the upper part of the foot are compounds made from *murirriba* 'back'.¹⁴²

These words for 'front' and 'back' occur with reference to other upright things besides the human body. For example the pandanus palm leaf which is used for weaving has a distinct ridge along the back of the leaf. The back of the leaf is *mamurirriba* and the front of the leaf is *mamungengkuwa*.

'Front' and 'back' are more specific terms in Anindilyakwa than in English. The words primarily referring to the body are not applicable when describing position within a container. The position in the front of a canoe and a building is *amarra-manja* and the position in the back is *amudakbu-manja*. *Amarra* is not used alone, but *amudakba* is literally 'tail'. 'At the back' *akaburrangarna* ~ *akaburrangarnu-manja* is used for 'west' in contrast to *alyengmulyengma* 'east' which is literally 'at the front'.

The directions east and west are much more significant to Groote Eylandters in connection with land ownership than north and south. Terms for north and south are not in common use, but wind directions may be used.

'Forwards' and 'backwards' are expressed by the terms *amarra-wa* and *amudakbu-wa*.¹⁴³

2.4.8 ORDERING OF POSITION

The ordering of place is limited to first and last. Like English, the words *ening-adinubawiya* 'first' and *enungw-arijilangwa* 'last' are adjectival. Unlike English, they are derived from adverbs of time. The middle ones, *eningu-wilyarra*, are not ordered (see section 2.2.4).

The verb *-lyeng-mena* 'lead' is used in various contexts. The literal meaning of this word is 'take the head'. The prefix representing *aringka* 'head' is *-lyang-* ~ *lyeng-* and the verb stem *-mena* is 'take'. The primary meaning of this word is to go first. When walking along a narrow path one person may say to another, *lyeng-mena nungkuwa* 'you go in front'. When various groups of people are travelling, the question may be asked, *angkaburra ka-lyeng-menama?* 'Who will go first?'. The word *-lyeng-mena* is also used as the equivalent of the English 'win' in the context of

- 144 *angkaburra na-lyeng-menama?* who is winning?
nakina ni-lyeng-manguma he won
wurrakina na-lyeng-manguma they've won
- 145 *ma-lyeng-ma-ji-na mema* put this (truck) in the front
- 146 *yimundungwa niyuwayinuma* the cypress trees were in a line
wulikaja wurriyuwayina! walk in line behind each other!
wurr-arnda-kilyangbadina! stand in line side by side!
- 147 *awilyaba-ma angalya akena angurrkw-ambilyuma*
one-emph area but enclosure-two
narri-ngurrkwarrngarnuma dirranda-ma
they.it.a-enclosed wire-with
'There was one cage, but they had divided it into two enclosures
with wire netting.'
- angalya na-ngurrkwarrnga-jungwunuma* the area was enclosed with
dirranda-ma wire

competition, either individual or team.¹⁴⁴ The same verb may be used with the addition of the causative suffix *-ji-*, as when instructing a child playing with toy trucks.¹⁴⁵

There are various ways of describing things 'in a line'. For example the verb stem *-yuwayina* 'follow each other' can describe trees in a stationary position as well as people following each other. In the case of people standing in line side by side, the verb used to describe this position includes *arnda* 'elbow'.¹⁴⁶

2.5 SPEED

Before the advent of modern technology, the concept of speed related to such things as the rate of movement of human beings on foot and of canoes, spears, fire, wind and water, animals, and the rate of growth of plant life. The skill of estimating speed, taking into account the natural forces which influence it, was and still is highly developed. Some examples have already been given in section 2.1 discussing estimation.

The basic terms relating to speed are *waranja* 'quickly' and *ambakilangwa* 'slowly'. The command 'Hurry up! Quickly' is *waranja!*

Waranju-bawiya also means 'quickly' but is used adverbially and includes the meaning of the English word 'early', as discussed in section 2.2.4.

Ambakilangwa has the extended meanings 'gently, carefully, little by little'.

The idiom *mekawajiya* 'make it (e.g. a bicycle) look good' is used with the meaning 'make it go fast'.

2.6 SPACE

The noun *angwurn.dikirra* 'space' is used for an area bounded on both sides by objects of any size. It is in common use for a strait, such as the strait between Groote Eylandt and Winchelsea Island. It is also used for the space between any objects such as rocks, houses etc., and refers especially to a narrow space.

The verb stem *-ngurrkwarrnga-jungwuna* 'be enclosed' is used to describe an area bounded on all sides by objects, making a confined space.¹⁴⁷

- 148 *marri-jinungkwa numulikenuma* it (road or vehicle) went straight on
yangungwa yarri-jinungkwa an eel doesn't have legs
darri-jinungkwa diriija a beltless dress or shift
alingabi-jinungkwa eka a tree having a straight trunk without branches or protuberances
numungkurrbi-jinungkwa a man who does not deviate to left or right, whose eyes are looking straight ahead
- 149 *mudirrbura mamurukwa* a straight path
dirrbura warjiyinga! stand up straight!
wu-dirrbura-kina akina eka! straighten that stick!
mawiyidi-kina makina mamurukwa! make that path straight!
wudirrburada! stand up straight!
- 150 *makarda numamurrkwulinamurra* the sea is calm (lies flat)
enungkwa namurrkwulinama the spear is lying on the ground
ajiringku-manja
enungkwa nuwalkayenama the spear is standing upright
ajiringku-manja
enungkwa nuwandilyinama eku-manja the spear is leaning against the tree
mijiyanga numilankwalyilyaduma the ship was leaning over
- 151 *aburri-langwa angalya nalawurradinama X-langwa*
their area it.a.returns X-from
'Their area goes as far as X.'

2.6.1 LINE SEGMENTS

In traditional Aboriginal society there was no need for arbitrary standards within spatial relationships. The concepts of lines and areas were only developed as far as they were needed, and in different ways from English. The following vocabulary items illustrate these concepts.

There is no Anindilyakwa word for 'a line', but there is a word to describe an object which has a straight line. The difference between a spear having a straight line and one with barbs, and between a tree with a straight trunk and one with branches, is significant. The concept of something having no obstruction is important and is therefore accounted for in the vocabulary. The concept 'without obstruction' is described by the root *-jinungkwa*. Prefixes must be added to elucidate precise meanings, some of which are listed.¹⁴⁸ (Another area of meaning was revealed when an old man with a bad cough was recording a story on tape for me. When I enquired about his cough he said *ningarri-jinungkwa*, meaning that he could keep on recording without stopping to cough.)

Two adjectives *adirrbura* and *awiyida* 'straight' describe the concept of straight lines whether horizontal or vertical. The adverbial forms are *dirrbura* and *awiyida*. The verb stems *-dirrbura-kina* and *-awiyidi-kina* 'straighten' are formed by adding the causative suffix *-kina* to these adverbs. The verb stem *-dirrbura-dina* 'become straight' is formed by adding the suffix *-dina* 'become' to the adverb *dirrbura* 'straight'.¹⁴⁹ However this suffix does not occur with *awiyida* which is not used as frequently as *dirrbura*.

Although there is no direct translation of 'horizontal', 'oblique' and 'vertical', the distinction between these positions is made by the verbs 'lying', 'leaning' and 'standing upright'.¹⁵⁰

The noun *angurrkwuruwura* 'corner' which is connected with the adjective *ayangkwuruwura* 'crooked' is used to describe a curve such as the bend in a river or road, and a bay on the coast.

When English speakers discuss geographical areas, it is said that a certain area extends 'from here to there'. The Anindilyakwa speaker takes a different point of view, thinking of the direction in terms of 'from there to here',¹⁵¹ as discussed in section 2.4.5.

- 152 *mamukwurra mamulerrbirra* the point of a hooked spear
amukwurra angalya a point of land
- 153 *wungandingakina ena eka* sharpen this stick (to a point)
- 154 *nara ar.darruma menba* don't poke your finger in the
yimendi-langwa turtle's eye
- 155 *aremberrbirra eka* a board (flat piece of wood)
yangungwu-langwa mamudakba an eel's tail is flat
muremberrbirra

2.6.2 POINTS

There is no Anindilyakwa word for the mark made by a pointed object, but the word *amukwurra* 'face' is used for the point of something sharp like a spear, and therefore also a pencil. The same word is used for a point of land.¹⁵² The action of making something pointed is much more significant than the concept of a point as such. Spears and digging sticks have to be sharpened to a point.¹⁵³

The action of poking with the finger at a point is described by the verb *-ar.dirrena* 'spear'.¹⁵⁴ It should be noted that an Anindilyakwa speaker does not use the finger to point. Instead he indicates a particular direction with movement of the chin and lips.

2.6.3 ANGLES

The noun *angurkwuruwura* 'corner', already mentioned with the meaning of a curve, refers also to all sharp angles. The context elucidates whether the angle is a right-angle, acute or obtuse, since traditional Aboriginal culture was not concerned with abstractions out of context.

2.6.4 SHAPE

a) Planes

Aremberrbirra 'flat'

The adjective *aremberrbirra* 'flat' describes any flat object, such as a gramophone record, a slab of rock, and paper and books.¹⁵⁵

Rectangular, square

Pieces of bark for bark paintings are roughly rectangular when cut from the tree and left without trimming. Sails for canoes are the same rectangular shape. Before the introduction of ready-made cloth they were made without regard to the preciseness of the angles or the exact length of the sides.

Angarumungwa 'concave'

The adjective *angarumungwa* 'concave' describes an object which is shallow and only slightly concave, such as a saucer, and also deeper containers such as a bark coolamon, a boiler (for cooking),

na-mungeki-lyuwakenama aringka enilangwa
 it-head-circles head his

'His head is spinning, he's giddy.'

akungwa nuw-aburringki-lyuwakenama nerrikbinumurru-manja malarra
 water it-liquid-circles he.threw-at stone

'The water is going around in circles where he threw the stone.'

n-aburringki-lyuwaka-juwa diya
 he-liquid-circle-cause tea

'He stirred the tea.'

ni-ringki-lyuwaka-juwa alikira
 he-house-circle-caused house

'He went right around the house.'

ni-riki-lyuwaka-jungwunuma
 he-foot-circle-reflexive

'He's going around and around in circles.'

yingarna ni-rreki-lyuwaka-jungwunuma
 snake it-coiled.thing-circle-reflexive

'The snake has curled itself up.'

a copper (for washing) and a Macassan cooking pot. The same word applies to the deeply concave hull of a ship. The perimeter of these containers may be either circular or elliptical.

The notion of planes being convex is irrelevant to the Anindilyakwa speaker because it does not have any practical implications, being no more than a description of things concave seen from a different aspect. A roof is only of interest as a covering above people. However, see section 2.5.4 for a discussion of solids which are convex.

The absence of an Anindilyakwa one-to-one correspondence with the English word 'horizon' does not prevent an Anindilyakwa speaker from talking about land and boats on the horizon. The Anindilyakwa speaker talks about them being so far away that one can hardly see them.

Circular

The word *amamuwa* 'elliptical object, small round object' is also used for a circle drawn on bark. The precise differentiation between circular and elliptical in either case is irrelevant, and the differentiation between planes and solids is obvious in context.

When objects are arranged 'in a circle' the abstract noun 'circle' is used in English to designate a more or less exact shape. In Anindilyakwa a description is given in concrete terms of the objects forming the shape, but the shape is unnamed. The objects forming the shape are in focus, instead of the shape itself. The space created by those objects is also significant. In example 144 describing an enclosed space, the actual shape of the enclosed area could in fact be circular.

The verb stems *-lyuwakena* 'circle', *-lyuwaka-jina* 'encircle' and *-lyuwaka-jungwuna* 'form a circle' require a prefix representing a noun in addition to pronominal prefixation. They are in common use and occur idiomatically as well as literally.¹⁵⁶ It should be noted that movement is always involved.

157	<i>amamuwa ayarrka</i>	finger (hand)
	<i>amamuwa alika</i>	toe (foot)
	<i>mamamuwa menba</i>	eye ball (eye)
	<i>am-amamuwa aninga</i>	fruit
158	<i>yinumamuwa</i>	eggs, particularly of <i>y</i> noun class creatures e.g. <i>yimenda</i> 'turtle'
	<i>dadumamuwa</i>	eggs of <i>d</i> noun class creature e.g. <i>dingarrbiya</i> 'crocodile'
159	<i>am-amamuwa duja</i>	battery (torch)
	<i>am-amamuwa awarnda</i>	coin (money)
	<i>am-amamuwa jinaba</i>	bullet (gun)
	<i>am-amamuwa mirrijina</i>	tablet (medicine)
	<i>mam-amamuwa</i>	marble
160	<i>m-embirrk-ambawura muninga</i>	a few cycad nuts
	<i>yimawura y-embirrk-aruma</i>	the full moon (literally 'big')
161	<i>yi-mungk-ababurna yinumukwena</i>	many heaps of cockles
	<i>ma-mungk-ambilyuma murungkwurra</i>	two heaps of round yams
162	<i>ni-rak-uwurra bajikala</i>	he threw the tin away
	<i>jinaba ni-rak-uwilyakama</i>	he was carrying a gun
	<i>a-rak-adirrunwarna dudija</i>	a length of big pipe

b) Solids

Round, ovoid

The word *amamuwa* 'small elliptical object, sphere' was probably first used to describe fingers and toes and then extended to include other body parts, eggs and certain parts of plants. Various buds, fruits and pods are described as *am-amamuwa*.¹⁵⁷

The secondary meaning of *amamuwa* includes any small round object. The focus is on the spherical mass rather than the exact shape. Most eggs are oval, but the most sought after eggs are the round ones belonging to *yimenda* 'turtle'. Because turtle eggs are an important source of food it seems that *yinumamuwa* is used generally for any kind of egg, unless specifically stated.¹⁵⁸

Many introduced objects are called *amamuwa* and *mamamuwa*. The exact meaning is made clear by the context.¹⁵⁹

The fact that *amamuwa* can refer to both round and ovoid objects does not mean that a more precise definition of round is unavailable, when needed, although it is not used by children.

The prefix *-embirr-* represents the noun *andira* 'kidney' and also means 'round'. It is used by adults to describe such round things as introduced objects, pebbles, fruits, eggs and the round sting-ray.¹⁶⁰

By using prefixes describing particular characteristics, one can distinguish between round and ovoid eggs. The noun *amamuwa* 'small elliptical object' can take the prefix *-embirr-* 'round', with the appropriate noun class marker, to form a compound word. Thus *y-embirr-k-amamuwa yimendi-langwa* 'the round egg of the turtle'. The same prefix *-embirr-* 'round' added to the adjective root *-jirrirra-* 'long' produces a new adjective, 'ovoid', to describe the hen's egg *d-embirr-i-jirrirra dadumamuwa jukwujukwu-langwa*.

The prefix *-mungk-* is used by adults for a collection of round things such as eggs, bush food, shellfish and round rays.¹⁶¹

The prefix *-yak-* representing the noun *yiraka* 'didjeridu' is used by adults to describe all round, hollow objects, such as bottles, tins, pipes, drums etc.¹⁶²

- 163 *ningenum-ebinga* by body (trunk only)
dadum-ebinga her body, body of crocodile etc.
yinum-ebinga body of bandicoot, wallaby etc.
nenum-ebinga his body
warnum-ebinga body of baby, dog etc.
- 164 *mamungina maliliyanga* nuts of the stringybark
yinumungina yinubarringinja nuts of the white gum
- 165 *a...yukwujiya ~ ayu...kwujiya₁* tiny (see Appendix 1)
ayukwujiye-ka very small
awank-iyukwujiya small
awank-ayukwujiya rather small
awank-aruma ~ awank-adirrunswana rather big
aruma ~ adirrunswana big
arume-ka ~ adirrunswarne-ka very big
awank-amakwulyumuda rather huge
amakwulyumuda huge
amakwulyumude-ka enormous
- 166 *ena awarnda awank-iyukwujiya* this stone is rather small
umba akina ayukwujiya but that one is (really) small
- 167 *wulalika ayukwayuwa-wiya umba wumiya ena arumu-dangwa*
leave small-plural but pick.up this big-emphasis
'Leave the small ones and pick up this big one.'

Ebinga 'body shape, ant-hill'

Ebinga 'ant-hill' is so called because of its likeness to the human body — *ningenum-ebinga* 'my body' describes the human body in the way that 'trunk' is used in English. With reference to human beings *ebinga* usually describes a large, thick-set body. With reference to animals, it describes those having a relatively large, solid body, such as the dog and bandicoot.¹⁶³

Amungina 'knob'

The word *amungina* is used for a 'knob'. It is used for the small bones such as knuckles, wrist bones and ankle bones, and for the joints of the fingers and toes. By extension of meaning it describes certain parts of plants having a similar appearance. The seed pods of plants and gumnuts are likened to these small bones.¹⁶⁴

Convex

The concept 'convex' as applied to solids is described by the verb *-dirralinga* 'heaped up'. The scrub hen piles up a large heap of leaves and earth for a nest in which to place its eggs to incubate them. This pile is *na-dirralinga* 'heaped up'. A tree having lumps which protrude from the trunk is *alinga-dirralinga* 'tall and lumpy'. See the description of thickness in section 2.7.2.

2.7 SIZE

The basic concept of size is expressed in three ways: *ayukwujiya* 'small', *aruma ~ adirrunswana* 'big' and *amakwulyumuda* 'huge'.

In the ordering of size the prefix *awank-* 'rather' and the emphatic suffix *-ka* occur.¹⁶⁵ Comparison of size is expressed as indicated when discussing inequality, using *angwurra* 'more', *awank-* 'rather' and the emphatic suffix *-ka* (see section 1.2.4).¹⁶⁶

The emphatic suffix *-dangwa* occurs and singles out one from a group, e.g. *arumu-dangwa* 'the big one' and *ayukwujiyi-dangwa* 'the small one'.¹⁶⁷

168	<i>arukwudarrbe-ka</i>	very short
	<i>awanki-rukwudarrba</i>	rather short
	<i>arukwudarrba</i>	short
	<i>awank-amurajirrirra</i>	rather high, rather long
	<i>amurajirrirra</i>	high, long
	<i>amurajirrirre-ka</i>	very high, very long

2.7.1 HEIGHT, LENGTH AND DEPTH

The basic concepts of height and length are expressed by the same words *amurajirrirra* ~ *amurajirra* 'tall, long', and *arukwudarrba* ~ *adarrba* 'short'. In the past there was no need to differentiate between vertical and horizontal.

The adjective *adarrba* 'short' can occur alone but more frequently occurs with a prefix representing a noun. When the prefix *-ruk-* ~ *-rukw-* representing the noun *alika* 'foot' is added to *adarrba* 'short', the word *a-rukwu-darrba* is formed and used as an alternative for short in many contexts.

Depth is expressed by *angwujirira* ~ *angwujira* 'deep' and *abulala* 'shallow'.

The ordering of the concepts of height and length is listed opposite.¹⁶⁸ The concept of depth can be similarly ordered. The emphatic suffix *-dangwa* can be used to single out 'the long one'.

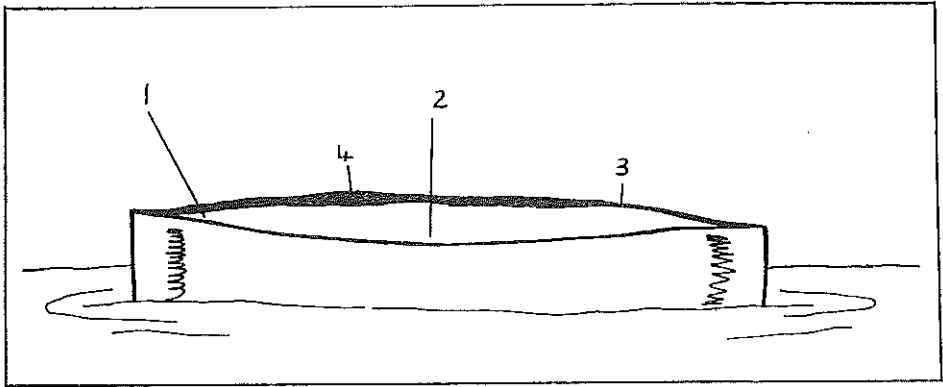
Comparison of these concepts is expressed as indicated when discussing inequality (see section 1.2.4).

2.7.2 THICKNESS AND WIDTH

There are various words in Anindilyakwa to describe the English terms 'fat' and 'thin', 'thick' and 'thin', and 'wide' and 'narrow'.

The adjectives *engmurra* 'fat' and *ayarrmiyarrma* ~ *alarrkbulala* 'thin' qualify people, animals and also certain inanimate objects. Ordering and comparison are possible as indicated for height but are not generally used. The suffix *-dangwa* singles out one from a group.

Other words for thickness and width are complicated by the fact that the root cannot be used without a specific prefix representing a noun as well as the usual noun class marker. (See Appendix 2 regarding noun prefixation.)



169 *alinga-dirralinga eka*
 tall-lumpy tree
 'a tree with a protruding lump'

alinga-jamiyama eka
 tall-thin tree ~ stick
 'a tall thin tree ~ a long thin stick'

mirre-jamiyama merra
 long.flexible-thin string
 'a coil of thin string'

mungak-adirrunwarna makarda
 thigh.shape-big sea
 'rolling waves'

arra-jirrirra amukwurra
 forehead.shape-long face
 'a long peninsula'

170 *amukwurra awank-arra-jirrirra* a fairly long peninsula
amukwurra arra-jirrirre-ka a very long peninsula
amukwurra arra-jirrirri-dangwa the very long peninsula

The following adjective roots occur:

<i>-dilidila</i>	fat, thick (people, animals and things)
<i>-biyiya</i>	fat, thick (people, animals and things)
<i>-dirralinga</i>	thick (things), literally 'heaped, piled up', also 'lumpy'
<i>-jamiyama</i>	thin, narrow (people, animals and things)
<i>-kijuba</i>	thin, narrow (things)
<i>ebirra</i>	wide (things)

The root *-kijuba* is not in common use among young people.

The root *-dirralinga* 'thick' has been discussed with reference to convex solids (see section 2.5.4).

The root *-ebirra* 'wide' also means 'spacious', 'roomy'. In this case width is not the only component of meaning.

The diagram opposite of a canoe illustrates four of the above terms. The prefix representing *malamukwa* 'canoe' is *-amba-* 'container' and that representing *eka* 'tree ~ wood' is *-arnda-*. *Malamukwa* 'canoe' is in the *m* noun class, and *eka* 'tree' is in the *a* noun class, but in this example 'thin wood' has the *m* noun class marker because the wood is part of the canoe.

1. *mamba-kijuba* ~ *mamba-jamiyama* 'narrow canoe ~ narrow part of canoe'
2. *mamb-ebirra* 'wide canoe ~ wide part of canoe'
3. *marnda-kijuba* ~ *marnda-jamiyama* 'thin wood (edge of canoe)'
4. *marnda-dilidila* ~ *marndak-biyiya* 'thick wood (edge of canoe)'

2.7.3 COMBINED CONCEPTS

Anindilyakwa has the potential for describing a combination of two concepts in one word. A few examples will suffice to show the remarkable flexibility of the language.¹⁶⁹ The prefix *awank-* 'rather' and the suffixes *-ka* 'very' and *-dangwa* 'emphasis' can occur.¹⁷⁰

- 171 *angwura alyikarrbarubara*
 firewood light.and.hollow
 'firewood that is light to carry because hollow, and so useless'
- angwala alyikarrbarubara*
 crab light.and.hollow
 'crabs that are not worth catching because they feel light, which indicates very little flesh inside the shell'
- dilyikarrbarubara dadiyuwangkwa*
 light.and.hollow old.woman
 'an old woman who has lost weight from not eating and is therefore light to carry'
- 172 *awilyaba bajikala na-lyang-burrukunama*
 one tin it.a-head-disappears
 'One tin is full.'
- ni-lyangburrukwa bajikala yilyakwa*
 it.y-filled tin honey
 'The tin is full of honey.'
- numi-lyangburrukwa bajikala mangkarrkba arakba*
 it.m-filled tin plums now
 'The tin is full of plums now.'
- wi-lyangburrukwa jina bajikala mamudangu-murra*
 it.a-fill tin sand-with
 'Fill the tin with sand!'
- yinguma-lyangburrukwa juwa mamudangkwa bajikalu-manja*
 she.it.m-filled sand tin-in
 'She filled the tin with sand.'
- 173 *nara ambaka aladuma* I haven't had enough to eat yet
- alyubarina kiladeni-yada*
 eat you.will.be.full-purpose
 'Eat so you will not be hungry.'

2.8 MASS

The basic words describing mass are *engkubarrngwarrngwa* 'heavy' and *ekilyarra* 'light'.

The concepts of size and mass are not connected. Objects may be small and heavy or large and light. There is a special word *alyikarrbarubara* for things that are sometimes big but hollow and therefore light.¹⁷¹

The ordering and comparison of the terms 'heavy' and 'light' follow the same pattern as that for height (see section 2.7.1).

2.9 CAPACITY

Before the era of technology, baler shells were used to hold water, and containers made of bark were made by the women for the daily gathering of food. They were also useful for holding objects such as ochres. These containers were made from stringybark (Levitt 1981:18). Paperbark is still used as a temporary container when other containers are not available. This is not carefully made into a container like those from stringybark, as it is soon discarded.

As in English the concept of fullness refers to both liquids and solids. A container is full when the contents reach the top, so the adjective *alyang-burrukwa* 'full' is evidently connected with *-lyang-*, the prefix representing *aringka* 'head'. It is feasible that the root *-burrukw-* has some connection with the verb stem *-lyikarr-burrukwuna* meaning 'slip and fall over' and thus in some situations 'disappear from sight'. The inside of the container disappears as far as the top, or head, when full.

The verb stem *-lyang-burrukwuna* 'be filled', 'be full' refers to the contents and also to the container. The causative *-lyang-burrukwa-jina* 'fill' also refers to both contents and container.¹⁷²

Capacity with reference to eating is described by the verb stem *-ladena* 'be replete'.¹⁷³ This word is also used to refer to a full bladder. When a person has had enough to eat and is offered something more, instead of refusing the food the expression *ngawa* 'enough' is used, being the equivalent of 'no thank you, I've had enough'.

- 174 *kalyangburrukwuna bajikala (ayarrka) akwa kakwarringina*
 it.a.will.be.filled tin (hand) and it.a.will.break.in.two
 'a tinful (handful) and a half'
- 175 *mabun-debirra makarda* empty sea e.g. devoid of fish
murn.-debirra medirra empty cave e.g. without any
 paintings
arndi-debirra eka an empty tree e.g. without fruit
 or wild honey
marndi-debirra mangkarrkba empty plum tree
mamba-debirra malamukwa empty canoe
mal.debirra miyerriya empty nest
ama-debirra angalya empty camp
- 176 *narrumalarrkarnu-manja* when they sent hooked spears
mamulerrbirra angerriba across to the mainland they
ayangkwulyumuda-wa got stone from there
nuwarrangbina awarnda
yakwujina
- 177 *am-alyukwurra* paper money (from *alyukwurra*
 'paperbark')
amu-jurra paper money (from *jurra* 'paper')
am-amamuwa coinage (from *amamuwa* 'small
 round objects')
ambarrngarna awarnda? how much money?
aruma awarnda a lot of money

The concept 'half full' in Anindilyakwa is not exactly half but 'partly full'. The adjective *ekwarra* 'one part' is used to describe a partly filled container but reference is made to the contents and not to the container itself (see section 1.2.3). The amounts 'a tin and a half' and 'a handful and a half' are expressed idiomatically by verbs.¹⁷⁴

The concept 'empty' is described by the root *-debirra* which requires a prefix representing a noun. The concept has a wider area of meaning than the English. The use of the word focuses on the absence of what one might expect to find according to the context.¹⁷⁵

2.10 MONEY

Before the introduction of money, trading took place between the people of Groote Eylandt and the mainland tribes. Locally made hooked spears were traded on the mainland in exchange for a particular type of sharp stone used for spear heads¹⁷⁶ and also for a type of red ochre which was considered superior to the red ochre available on Groote Eylandt. Trading also took place between the clans on Groote Eylandt itself. Certain kinds of wood required for particular purposes were traded between the clans on Groote because the supply was greater in some clan areas than other. The Wurramarrba clan, for instance, traded rope for hardwood which abounded in the Jaragba clan territory.

The term used for buying and selling is a transliteration of the English, and there is no clear differentiation between the two types of transaction. When both 'buy' and 'pay' are transliterated, the result is the same, since both words in Anindilyakwa become the one form *-bayindena*. However the context usually clarifies the meaning adequately.

Today two words are used for money. One is *mani*, transliterated from the English 'money', and the other is *awarnda*, literally 'stones'. Although *awarnda* is a general term for sums of money, it refers more specifically to coinage. The examples show other adaptations that have been made for modern needs.¹⁷⁷

2.11 AGE

The concept of precise age was not recognised in traditional Aboriginal society. Although years were not counted in any way, people's ages were compared. Stages of development in small children were

178	<i>dangariya</i>	baby girl, toddler, infant
	<i>dadiyara</i>	young unmarried girl
	<i>didarringka</i>	female, woman, married woman
	<i>dadiyuwangkwa</i>	old woman

noted and compared with much interest, and this is still so today.

Some 'age' terminology in Anindilyakwa is beyond the scope of this paper because the focus of such terminology is not on age but on marital status, parenthood, and ritual stages for men. For this reason such terminology is not parallel for both sexes. A few basic examples are given opposite.¹⁷⁸

The comparative age of children is less important than their size. In a group of young boys to be circumcised, age might vary more than size. More is expected of bigger boys than of others of the same age. Those children who are big for their age may have a hard time, while their contemporaries are let off lightly. When the ages of two boys are compared, there may be little difference between their dates of birth, but one boy is said to be *naruma* 'the big one' (older), and the other is *niyukwujiya* 'the small one' (younger). Exact ages are irrelevant.

When a new baby is talked about in a small community, the age is obviously not in focus but the sex is of great importance. Thus the answer to the question, 'Is the baby a boy or a girl?' is often *nenungkwarba* 'male, man' or *didarringka* 'female, woman'. The adjective *amurrkbalya* 'soft' is also used for very young babies.

In a family the first born child is *numilyengma* or *nenungwur.dangmanja* if male, and *dumilyengma* or *dadungwur.dangmanja* if female. The last born child is *nenungwarijilangwa* or *nenikubarukwena* (male) and *dadungwarijilangwa* or *dadikubarukwena* (female). Every boy in the middle of the family is *neninguwilyarra*, and every girl is *dadinguwilyarra*.

Wurriyukwayuwa, the human plural form of the adjective 'small', has the special meaning 'children' when it is used alone but other pronominal prefixes can occur, e.g. *kirriyukwayuwa* 'you children'. The plural form with reduplication *wurriyukiyukwayuwa* is also used.

Wurrarumuruma, the human plural form of the adjective 'big' with partial reduplication, has the special meaning 'adults' when it is used alone, but the exact meaning depends on the context in which it is used. As well as meaning adults as opposed to children, it means older; more mature adults as opposed to young adults, and it is also used for ancestors. Another way of referring to ancestors is to use the term *wurumurumurena* 'grand-fathers' with the adjective *warninungkwurakba* 'old'. By analogy the same term

- 179 *narumuda erriberribu-manja* he grew up in the bush
- 180 *yingin-arumurrkama* she brought up her older
diyabadikbu-langwa nangariya sister's baby boy
- 181 *kamakinama alawudawarra* I will tell you an old story
enungkwurakba
- ena alikira enikaduwa umba* this is a new house but the one
angaba enungkwurakba over there is old

wurumumurena with its reciprocal meaning 'grand-children' can be used with the adjective *warnikaduwa* 'new' to mean 'descendants'.

Age, size and importance of people are closely linked. *Niyukwujiya* means 'small, young and unimportant' (masculine). *Naruma ~ nadirungwana* means 'big, old and important' (masculine). The word *wurumuruma* 'adults' thus carries the further meaning 'important people'.

The verb stem *-arumudina* 'become big' has the extended meaning 'grow up'.¹⁷⁹ The causative verb stem *-arumurrkina* 'make big' translates the English 'rear, bring up'.¹⁸⁰

The terms for the age of things are *enikaduwa* 'new' and *enungwurakba* 'old'.¹⁸¹ See examples 75 and 127 for figurative uses of these words.

3. CONCLUSION

The foregoing description of Anindilyakwa concepts demonstrates that there is a wide variety of constructions to describe the basic concepts of beginning mathematics. Some terminology referring to these concepts is not inadequate, but it is unsuitable for young children because it involves sophisticated and complex language forms. The complexity of these forms shows the richness of the concepts in the language.

Adaptation has been taking place already in some of these areas and further adaptation and extension are foreseen.

APPENDIX 1

EXTENDED VOWELS AND CONSONANTS

Either a vowel or a consonant, if the consonant is a continuant, e.g. *m*, *n*, *r*, may be lengthened. This phenomenon is common in Australian Aboriginal languages. In Anindilyakwa it signals emphasis in adjectives and adverbs. It usually occurs in the first or second syllable of the word. It also occurs in the conjunction *biya* 'and then' signalling an interval of time. The tone is high on the first syllable and falling gradually throughout the word. This feature is symbolised by the insertion of a few dots in the extended syllable.

am...bakilangwa

very slowly

a...rakbawiya ~ ar...akbawiyä

very long ago

a...yukwujiyá ~ ayu...kwujiya

very small

e...ningaba ~ en...ingaba

very good

akwu...dangwa

very close

bi...yá

and then, after a while

APPENDIX 2

NOUN PREFIXATION

Noun prefixation describes a phenomenon that is possibly more extensive in Anindilyakwa than in many other Australian Aboriginal languages. Many nouns can be represented by a specific prefix as well as having a free form. The prefix which cannot be used alone is usually quite different from the free form, e.g.

<i>aringka</i>	'head' (free form)	<i>mamurukwa</i>	'road' (free form)
<i>-lyang-</i>	'head' (prefix)	<i>-lukw-</i>	'road' (prefix)

Noun prefixes occur in adjectives following the noun class marker. They are sometimes obligatory and sometimes optional, e.g.

a-lyang-mandukwuna (obligatory)
class.marker-head-true
'true, honest'

<i>m-abiyakarbiya</i>	<i>mamurukwa</i>	~	<i>mu-lukw-abiyakarbiya</i>	<i>mamurukwa</i>
class.marker-three	road		class.marker-road-three	road
'three roads'			'three roads'	

Noun prefixes also occur in verbs following the subject + object pronominal prefixation. They are sometimes obligatory and sometimes optional, e.g.

ning-eni-lyang-barra (obligatory)
I-him-head-hit
'I hit him on the head.'

<i>ningi-lalika</i>	<i>amurndakijika</i>	~	<i>ningi-larrngki-lalika</i>	<i>amurndakijika</i>
I-left	things		I-things-left	things
'I left the things.'			'I left the things.'	

Nouns having a specific prefix as well as a free form include body parts, common nouns, generic terms and topographical features.

In some cases there is a prefix without a corresponding free form, as in the terminology describing shape, e.g.

yibilyubilya numindenama ~ *yibilyubilya ni-ngarning-mindenama*
lightning it.y.shines lightning it.y-long.rigid-shines
'the lightning shines' 'the forked lightning shines'

ABBREVIATIONS

emph	emphasis
excl	exclusive
fem	feminine
incl	inclusive
masc	masculine
sing	singular
plur	plural
~	alternating with
-	separating morphemes in Anindilyakwa and in English examples
.	separating English words

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