

Temporal, aspectual and modal expression in Anindilyakwa, the language of the Groote Eylandt archipelago, Australia

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**Temporal, aspectual and modal expression
in Anindilyakwa, the language of the Groote
Eylandt archipelago, Australia**

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James Bednall

A handwritten signature in black ink, appearing to read 'James Bednall', written in a cursive style.

September 2019

This project was approved by the ANU Human Research Ethics Committee, Protocol 2015/143.

Eyukwujiya alawudawarra jurra-langwa

Ena jurra amamalyuma ayakwa akwa yirriyengbinama eningabawiya akwa adirribura amamalya ayakwa.

Ngayuwa ningimungkadirra akwa ningikakurumadinama ena amamalya ayakwa. Umba ningiyengbinama ambawura amamalya ayakwa. Ngayuwa ngiyendenama kiyengbinama ena ayakwa angwurra ambaka-murra. Umba arakba ngayuwa ningarrikarrenama ena-manja jurra ningarrangkilabarnuma warnumamalya-manja, biya bumunalawurrakajuwa ayakwa ebina ngayuwa ngarrayengkilabarnuma, kamba ebina ayakwa neyengbinuma ngayuwa-manja akina ningakarranguma ena-manja jurra.

Ena jurra namakinama eningerribirra alawudawarra enena-langwa amamalya ayakwa. Ena amamalya ayakwa arribuda akina kuwangbilyuwakinama nungkuwa-langwa aringka.

Ena-manja jurra ngayuwa kawilyakajinama amurndakena-langwa verbs amamalyuma ayakwa, wubirra ‘ngarralikajama’, ‘ngarrangkarrinama’, ‘ngarrimebinama’ akwa ‘ngarrimungkwulama’. Amurndakena ayakwa ngariyamarrkinama-langwa ngarnumamalya.

Yirruwa yirriyengbina-manja yirri-languma amamalya ayakwa eningerribirra-langwa amurndakijika yarna kembirra yirrukwarrk wajinama ebina nelyengmenama akwa eningarija-langwa. Yirriyengbinama ‘ngalakaja’ enenuwiya, umba ebina nelyengmenama ayakwa akina yirrukwarrk wajinama eningarija-langwa ‘ngalikenā’, yirribina yirriyengbinama ambaka-murra akina yirrikwarrkajinama ‘akilikaja’.

Enena-manja jurra, ngayuwa kawilyakajinama neyamarrkinama ena amamalya ayakwa ningikwarrk wajinama wubirra amurndakena ayakwa ‘ngalikaja’, ‘ngalikenā’, ‘akilikaja’. Kawilyakajinama neyamarrkinama ena ayakwa ebina yirriyengbinama niyamarrkinama-langwa amurndakajika-murriya. Linguistics neyengbinama enungwaruma ayakwa amurdakena-langwa ayakwa, wubirra ‘tense’, ‘aspect’ akwa ‘modality’. Ena jurra

ngarrakumakinama amurdakena-langwa enungwaruma amamalya ayakwa.

Ningarrkarrena-manja ena jurra, ngayuwa ningengkirrikajama ababurna alawudawarra wurribina warnumamalya bumakinama amamalyuma ayakwa. Ngayuwa ngarningka ningiridemdanguma jurra amamalyuma ayakwa, akwa ningarrayengkilabajama warnumamalya, biya narralawurrakajinama ayakwa ngayuwawa kema ningeningma akwa ningakakurumadinama eningabawiya.

Ena-manja jurra nuwarrkajunginama enungwaruma amangkadirra ayakwa. Ngayuwa ningarrkarranguma ena jurra nganyangwa-yada university. Ena-manja jurra karrakumakinama wurrumangkadirra enena-langwa amamalya ayakwa. Ena eningaba kajungwa karrakumamurukajini-yada wurrumangkadirra-manja akwa warnumamalya-manja eminiminingka ayakwa ababurna-langwa angalya.

Ena jurra eningikilyarrbama warnumamalya-manja, mena akina nuwarrkajungunama enungwarumuma amungkadirra ayakwa. Umba ambaka kingekburakinama ababurna jurra-murriya wurranjabawiya warnumamalya-yada.

Ngayuwa ningekburakama ababurna recording warnumamalya-langwa ayakwa jurra-manja. Yikengkirrakaja enenuwa recording. Dukwa recording akina eningaba wurrarumuruma-langwa akwa wurriyukwayuwa-langwa kuwengkirrikaji-yada ambaka-murra. Nungkwurruwa yikengkirrakaja recording website-manja www.paradisec.org.au/repository/JRB1, ngaringka yikengkirrakaja language centre-manja.

Amamalya ayakwa eningaba. Ngayuwa ningiyekirrerra ningikakurumadina-manja ena amamalya ayakwa!¹

¹ This is a book about the Anindilyakwa language. It is a book about Anindilyakwa words, and the right way these words are used to talk this language.

I am a *Wurrimungkadirra* person (a non-Indigenous person), and I have been learning this Anindilyakwa language, but I'm still a beginner – hopefully one day I will speak more fluently. But for now, I wrote this book by asking lots of questions to *Warnumamalya* people. They gave me the answers to the questions I asked, and I used the answers to write this book.

This book tells these stories about this Anindilyakwa language. Anindilyakwa is a difficult language, it makes your head spin.

In this book, I show you about 'verbs' in Anindilyakwa. 'Verbs' are words that describe when we do things. They are words about actions or events, words like *ngarrangkarrinama*, *ngarrimebinama* and *ngarrimungkwulama*.

When we talk about when things happen in Anindilyakwa, we have to change the beginnings and endings of the words. When we are talking about now, we use this word: *ngalikaja*, but when we are talking about 'before', we have to change the word to: *ngalikena*. And if we want to talk about later, we have to change the word to: *akalikaja*. In this book, I show how in Anindilyakwa the words change like this. I show how the words change when we talk about when things happen. Linguistics uses hard words to talk about these things. The hard words to talk about these things are 'tense', 'aspect' and 'modality'. This book talks about 'tense', 'aspect' and 'modality' in Anindilyakwa language.

When I wrote this book, I listened to lots of stories that people told me in Anindilyakwa language. I also read Anindilyakwa books, and I asked lots of questions to *Warnumamalya* people. They told me the answers, so that I could learn the right way.

This book is written using difficult English. I wrote this book for my PhD degree. This book will help other researchers around the world understand and know more about Anindilyakwa language. This will be a good thing, because it will help researchers to learn more about all the languages of the world.

This book won't be easy for *Warnumamalya* people to read because it is written in technical English. But later on I am going to make more books, using everyday language, which will be better for *Warnumamalya* people to read.

I made lots of recordings of *Warnumamalya* people talking and telling stories for this book. You can listen to these recordings. Maybe the recordings will be good for people to listen to in the future. You can listen to the recordings at this website: www.paradisec.org.au/repository/JRB1 or you can listen at the language centre.

Anindilyakwa is great, I'm very happy to be learning this language!

Abstract

This thesis provides an empirically driven and theoretically informed examination of temporal, aspectual and modal (TAM) expression in Anindilyakwa, an underdescribed and underdocumented Gunwinyguan language of the Groote Eylandt archipelago, north-east Arnhem Land, Australia.

The goals of the thesis are both descriptive and theoretical. The first is to provide a detailed description of some of the core grammatical properties of Anindilyakwa, particularly related to the verbal complex. This descriptive goal is linked to, and builds the infrastructure for, the second goal of the thesis: to provide a theoretically-informed examination of temporal, aspectual and modal expression and interaction in Anindilyakwa, thus contributing towards (and building upon) research in the area of TAM semantics and pragmatics (and their interfaces with morpho-syntax). The original contribution of this thesis lies in the cross-section between theoretically-informed morpho-syntactic, semantic and pragmatic approaches to TAM expression in natural languages, and the exploration and examination of this domain in a fieldwork and language documentation setting: how do underdescribed languages inform our understanding of this domain, and how should we approach the documentation of these concepts in the field?

Anindilyakwa is a particularly interesting language to examine in this regard, given the polysynthetic nature and complex morphological make-up and combinatorics of the verb. Inflectionally, TAM expression is realised through the combination of (at least) two discontinuous morphological slots of the verb structure. In addition to the complex morphological combinatorics of the verbal structure, this inflectional system displays widespread aspectuo-temporal underspecification, coupled with a widespread lack of contrastiveness in many of the paradigmatic forms (i.e. syncretism). Thus, unpacking and

understanding these inflectional verbal properties, with respect to TAM expression, is where the core of this thesis lies.

This comprehensive semantic and morpho-syntactic investigation into the TAM system of Anindilyakwa contributes not only to the description of this underdocumented language, but it also bolsters the representation of understudied (particularly non-European) languages that have received detailed TAM study, ensuring that future cross-linguistic typological work on TAM has access to richer data in a wider sample of the world's languages.

Résumé

Cette thèse sur l'*anindilyakwa*, langue *gunwinyguan*, fournit une analyse empirique de l'expression temporelle, aspectuelle et modale (TAM) dans une langue peu documentée de l'archipel de Groote Eylandt, au nord-est de la région d'Arnhem en Australie.

Les objectifs de la thèse sont à la fois descriptifs et théoriques. Le premier objectif est de fournir une description détaillée de certaines des propriétés grammaticales les plus importantes de l'*anindilyakwa*, en particulier celles liées au groupe verbal. Cet objectif descriptif est enrichi par le deuxième objectif, qui est de contribuer à la recherche dans le domaine de la sémantique et de la pragmatique du TAM (et de leurs interfaces avec la morphosyntaxe) en entreprenant une analyse à fondement théorique de l'expression et de l'interaction temporelles, aspectuelles et modales en *anindilyakwa*. La principale innovation de cette thèse réside dans la combinaison (i) d'approches théoriques morphosyntaxiques, sémantiques et pragmatiques dans l'étude de l'expression du TAM dans les langues naturelles avec (ii) une approche descriptive de terrain. Le présent travail est une manière de réponse à la double question suivante : comment les langues peu documentées et étudiées éclairent-elles notre compréhension d'un domaine catégoriel général comme le TAM, comment ces, et comment peut-on aborder la documentation de catégories TAM dans un travail de terrain portant sur de telles langues ?

L'*anindilyakwa* est une langue particulièrement intéressante à examiner à cet égard, étant donné la nature polysynthétique et la composition morphologique complexe et combinatoire du verbe. Inflexionnellement, l'expression TAM y est réalisée par la combinaison de deux, voire trois, positions morphologiques discontinues dans le gabarit verbal. En plus de la combinatoire morphologique complexe du gabarit verbal, ce système d'inflexion présente une sous-spécification aspectuo-temporelle conséquente, associée à un syncrétisme généralisé,

c'est-à-dire à un manque prononcé de contrastivité dans plusieurs des formes paradigmatiques. L'analyse minutieuse et la compréhension de ces propriétés verbales flexionnelles, par rapport à l'expression du TAM, sont dès lors au cœur de cette thèse.

La présente étude sémantique et morphosyntaxique approfondie du système TAM de l'*anindilyakwa* contribue non seulement à la description de cette langue très peu documentée, mais aussi à notre connaissance des langues peu étudiées (en particulier non européennes) dont le système TAM a fait l'objet d'une étude approfondie. Ceci garantira l'accès des futurs travaux typologiques multilingues sur le TAM à des données plus riches et plus accessibles dans un échantillon plus large des langues du monde.

Voir pages 554–570 pour une synthèse de cette thèse en français.

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This thesis builds on the work of many other researchers who have worked on Anindilyakwa language. It would be much less comprehensive if not for the previous work of

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Abbreviations and conventions

Glossing abbreviations

1	first person (exclusive)	INCH	inchoative
12	first person (inclusive)	INST	instrumental
2	second person	INTS	intensifier
3	third person	IO	indirect object
A	augmented	IRR	irrealis
ABL	ablative	KIN	possessed kin
ALL	allative	LOC	locative
ALP	alienable possession	MUT	marker of symmetrical information
AM	associated motion		access from speaker perspective
BENE	benefactive	M	masculine gender
BLI	borrowed lexical item	MASC	masculine nominal class
CAUS	causative	n	nominal
CofR	change of referent	NEG	negative
CofS	change of state	NEUT	neuter nominal class
COLL	collective noun class	NPST	non-past
COM	comitative	NSR	nominaliser
COMPL.ACT	completed action	PF	phrase final clitic
DEON	deontic	POSS	possessive
DEP	dependent clause	POT	potential
DENIZ	denizen	PRO	pronoun
DIM	diminutive	PROP	proprietary
DO	direct object	PST	past
DU	dual	PERL	perlative
EMPH	emphatic	PRIV	privative
EVIT	evitative	PURP	purposive
EXCL	exclamation	QUANT	quantitative
F	feminine gender	REAL	realis
FACT	factitive	REAS	reason
FEM	feminine noun class	REDUP	reduplication
INALP	inalienable possession	REFL	reflexive

RECIP	reciprocal	USP	underspecified, phonologically null TAM
S	subject	VEG	vegetable nominal class
SEQ	sequential	v.i.	intransitive verb
TAG	tag question	v.t.	transitive verb
TRM	terminative	XTD	extended lengthening
TRVSR	transitiviser		

Sources for English translations to example sentences

Sources for English translations are provided for all Anindilyakwa examples. Unless otherwise indicated, English translations listed as ‘speaker translation’, ‘author translation’ or ‘source translation’ mean the following:

Speaker translation	The English translation of the example is exactly as recorded by an Anindilyakwa speaker. Unless otherwise indicated, the translation comes from the same speaker as the original Anindilyakwa language material.
Author translation	The English translation of the example is worded by the author, after consultation with Anindilyakwa speakers (i.e. involving discussion and back-translation). English translations provided by the author and not checked/corroborated with an Anindilyakwa speaker are otherwise indicated as such.
Source translation	The English translation of the example is as per the source of the Anindilyakwa language material (e.g. from a transcribed story, translated text, etc. not collected directly by the author).

Part I

Preliminaries

Chapter 1

Introduction

This thesis contributes towards (and builds upon) research in the area of temporal, aspectual and modal (TAM) semantics and pragmatics (and their interfaces with morpho-syntax), by providing an empirically driven and theoretically informed examination of the TAM system of Anindilyakwa, an underdescribed and underdocumented Gunwinyguan language of the Groote Eylandt archipelago, north-east Arnhem Land, Australia.

The goals of this thesis are both descriptive and theoretical. The first goal is to provide a detailed description of some of the core grammatical properties of Anindilyakwa, relating particularly to the verbal complex. This descriptive goal is linked to, and builds the infrastructure for, the second goal of the thesis, which is to provide a theoretically-informed examination into areas of temporal, aspectual and modal expression and interaction in Anindilyakwa. The original contribution of this thesis lies in the cross-section between theoretically-informed morpho-syntactic, semantic and pragmatic approaches to TAM expression in natural languages, and the exploration and examination of this domain in a fieldwork and language documentation setting: how do underdescribed languages from non-WEIRD² communities inform, and expand, our understanding of this domain, and how should we approach the documentation of these concepts in the field?

Thus, this comprehensive semantic and morpho-syntactic investigation into the TAM system of Anindilyakwa contributes not only to the description of this underdocumented

² Western, Educated, Industrialised, Rich and Democratic (Henrich, Heine and Norenzayan 2010).

language, but it also bolsters the representation of understudied (particularly non-European) languages that have received detailed TAM study, ensuring that future cross-linguistic typological work on TAM has access to richer and more accessible data in a wider sample of the world's languages.

1.1 Project overview

1.1.1 Motivation

While studies into TAM semantics and pragmatics have examined in great detail notions of inflectional tense and aspect, Aktionsart/event structure, grammatical mood (e.g. indicative vs. subjunctive distinctions) and modality (e.g. as expressed by modal auxiliaries) in Indo-European languages and a select number of non-European languages around the world, there has been much less research into these domains in lesser described languages. As such, theories with respect to TAM semantics and pragmatics have been (and continue to be) heavily biased towards a Euro-centric perspective. In recent times, however, there has been an increase in detailed research into TAM systems of non-Indo-European languages (see Map 1.1).



Map 1.1 A non-exhaustive demonstration of non-Indo-European languages that have received in-depth TAM research in the last quarter century (from Bohnmeyer forthcoming: 2)

This is also true for Australian languages. While in the not-too-distant past comparatively little dedicated research into TAM expression for Australian languages had been undertaken (aside from more general descriptions of TAM systems contained in reference grammars), in more recent times new studies have emerged, motivated particularly by the five-year project ‘Tense, Aspect, Modality and Evidentiality in Australian Languages’ (TAMEAL) (2009-13), which supported research focussed on integrating Australian language documentation with semantic approaches to TAM expression. This project, resulting in (amongst other publications) a special issue of the *Australian Journal of Linguistics* 32(1) (2012), has encouraged further study in this area, particularly research into TAM expression in languages of northern Australia, including Kriol (Angelo & Schultze-Berndt 2016; Phillips forthcoming; Schultze-Berndt, Ponsonnet & Angelo in prep), Ngandi (Gunwinyguan) (Collins 2015), Jaminjung (Mirndi) (Ritz & Schultze-Berndt 2015) and Yolngu languages (Pama-Nyungan) (Phillips forthcoming).

This thesis thus continues this momentum, providing a detailed examination of the TAM system of an underdescribed non-Pama-Nyungan language. Anindilyakwa in particular is an interesting language to focus on, given the complex nature of its verbal system, coupled by the fact that Anindilyakwa is a vital language, spoken as the L1 language across all generations of speakers, which allows for more extensive and nuanced research to be conducted. Additionally, Anindilyakwa is a member of the Gunwinyguan family, of which there are several other languages which continue to be spoken by large or sizeable numbers of speakers (at least in the context of Australian Aboriginal languages), such as the Bininj Kunwok languages (Kunwinjku, Kuninjku, Kune, Mayali), and Wubuy. This opens the door to possible future systematic comparative TAM research across the Gunwinyguan language family.

Linked with the impetus to provide a stronger cross-linguistic representation of TAM systems through examining non-European, smaller-scale, underdescribed languages is the need to improve documentation methods in the field of TAM semantics. Examining TAM semantics of underdescribed languages is often difficult due to both a lack of data, as well as a difficulty of interpreting data. Thus, marrying descriptive work with theoretically-informed semantic/pragmatic approaches is necessary in order to improve data collection techniques, which in turn allows for more advanced and systematic analysis of the data.

1.1.2 Thesis road map

The thesis is divided into four parts. Part I (Chapters 1-3), provides preliminary information relevant to Parts II-III of the thesis. Chapter 1 provides a brief overview of the project (§1.1), a background of the Anindilyakwa language and its speakers (§1.2), the data collected and used in the project (§1.3), and a very brief overview of some of the theoretical underpinnings (§1.4). Chapter 2 provides a morphological overview of the verbal complex, including the structure of the verb stem, the inflectional and derivational affixes (§2.3), and key notions regarding the combinatorics of TAM marking in the language (§2.2). Chapter 3 provides a background to clause types in Anindilyakwa, introducing the nature of the clause (§3.1), and an overview of the different possible verbal and verbless clauses (both independent (§3.2) and dependent (§3.3)). It provides a short summary of negation in §3.2.3 and §3.3.3.

Part II (Chapters 4-8) focuses on aspectual and temporal expression. Chapter 4 centres upon Aktionsart/event structure aspect, surveying the literature and outlining the approach I follow (§§4.1-4.3), before examining salient Aktionsart/event structure aspectual parameters in Anindilyakwa, and how these are ascertained (§4.4). Chapter 5 follows on from Chapter 4, continuing to focus on Aktionsart/event structure aspect, but in the context of dynamicity (states and change of states) and derivational marking. Chapter 6 turns to inflectional tense-aspect marking, examining past and present temporal readings expressed through the interaction of the REALIS pronominal prefix in combination with the TAM suffix paradigm. The inflectional system is overviewed in §6.2, before temporal and aspectual readings expressed through the interaction of the REALIS pronominal prefix with phonologically overt TAM suffixes (PAST and NON-PAST) are examined in §6.4. An important question to answer in this chapter is: what triggers the temporal interpretation of verbs involving the interaction of the pronominal prefix paradigm and a phonologically \emptyset realisation in the [+3] slot of the verbal template? This is discussed in relation to literature concerning tenseless languages, and I argue that the temporal interpretation of verbs whose inflectional marking involves the combination of a pronominal prefix paradigm and a bare-inflected stem (i.e. phonologically \emptyset TAM suffix) are realised through pragmatic inferences based on aspectual parameters, as well as contextual factors and discourse structure (§6.5). The Anindilyakwa inflectional tense-aspect system is compared with other Gunwinyguan languages in §6.6. Chapter 7 considers further means of aspectual expression, examining the semantics of verbal reduplication in §7.1, prosodic lengthening in §7.2, and aspectual particles and adjectives in §7.3. Chapter 8 builds on the

background of clause types provided in Chapter 3, examining temporal relations in complex clauses involving case clitics (§8.2) and spatio-temporal clitics (§8.3).

Part III (Chapters 9-10) furthers the discussion to consider modality, and the interplay between aspectuo-temporal parameters (introduced in Part II) and modal parameters. Chapter 9 focusses on the inflectional TAM system, examining the interaction between the pronominal prefix paradigm with the TAM suffix paradigm (§9.2). The IRREALIS pronominal paradigm in particular is examined in detail (§9.4), as well as the DEONTIC pronominal paradigm (§9.5). Negation is examined in §9.6. Chapter 10 considers more complex TAM expression, involving the interaction between the inflectional TAM system and case/spatio-temporal/modal clitics. Conditionals are discussed in §10.1, intentionality and volition in §10.2, and apprehension in §10.3.

Part IV (Chapter 11) provides a short summary of the contributions of the thesis, as well as future directions for further research in this area.

1.2 *Warnumamalya, angalya, ayakwa* (People, land, language)

This section provides an overview of the Anindilyakwa language (typological and genetic) (§1.2.1), a brief history of *Warnumamalya*³ (Groote Eylandters/Anindilyakwa speakers), their country (the Groote Eylandt archipelago), and some key aspects of their social organisation (§1.2.2), and the present-day setting of the communities of the Groote Eylandt archipelago and the current dynamicity of language (§1.2.3).

1.2.1 *The Anindilyakwa language*

Typological profile

Typologically, Anindilyakwa has been noted for being morphologically complex and richly polysynthetic (involving the cross-referencing of core arguments on the verb, nominal incorporation, and various argument changing verbal derivational affixes), with some scholars

³ *Warnumamalya* is the Anindilyakwa word for ‘people’. It is used to refer to Aboriginal people (and particularly the Aboriginal people of the Groote Eylandt archipelago), as opposed to *Wurrəmurnkadhər̄ra* (non-Indigenous people). *Warnumamalya* is used in this capacity throughout this thesis, to refer to the people of the Groote Eylandt archipelago (i.e. Anindilyakwa speakers). The word ‘Anindilyakwa’ is used to refer to the language only (not the people). Scholars have sometimes previously used *Warnindilyakwa* (i.e. the language name, with the COLL noun class prefix) as a term to refer to *Warnumamalya*, however *Warnindilyakwa* refers only to a particular clan from Moiety 2 (see §1.2.2), and shouldn’t be used as a term to refer to all people of the Groote Eylandt archipelago.

describing it as being ‘perhaps the most difficult of all Australian languages, with a very complex grammar’ (Dixon 1980: 98, Capell 1942: 376, cited in van Egmond 2012: 1). Although undoubtedly complex, van Egmond (2012) demonstrated that the language is in fact more regular than it had previously been described to be, patterning in many respects like other Gunwinyguan languages.

While the consonant inventory of Anindilyakwa is consistent with that of other Gunwinyguan languages, it has an atypical vowel inventory and phonotactics (van Egmond 2012: 16). The language has a head-marking structure, and as a consequence, case marking clitics are used predominantly for marking semantic roles (e.g. spatial location and movement to and from a location) and adnominal relations (between nominals), rather than grammatical arguments.

The language involves a complicated noun-classifying system, and an obligatory system for cross-referencing and agreement on nominals and verbs (van Egmond 2012: 1).

The verbal complex is the most elaborate word class, comprising verb stems that historically consist of an uninflecting verb root plus an inflecting element, and involving complex morphology, such as the use of multiple (2+) discontinuous morphs in the expression of TAM categories.

Genetic affiliation

Anindilyakwa was classified as a language isolate by O’Grady, Voegelin & Voegelin (1966a), O’Grady, Wurm & Hale (1966b) and Evans (2005), however more recent work on the genetic position of Anindilyakwa by van Egmond (2012: 316) suggests that it ‘shares a common ancestor with Wubuy and Ngandi’, and should therefore be reclassified under the Gunwinyguan family. Thus, following van Egmond (2012), Anindilyakwa can be seen to be most closely related to Wubuy, with the two languages, along with Ngandi, Ngalakgan and Rembarrnga, making up the *bak* subgroup of the Gunwinyguan language family. This relationship is displayed in Figure 1.1.

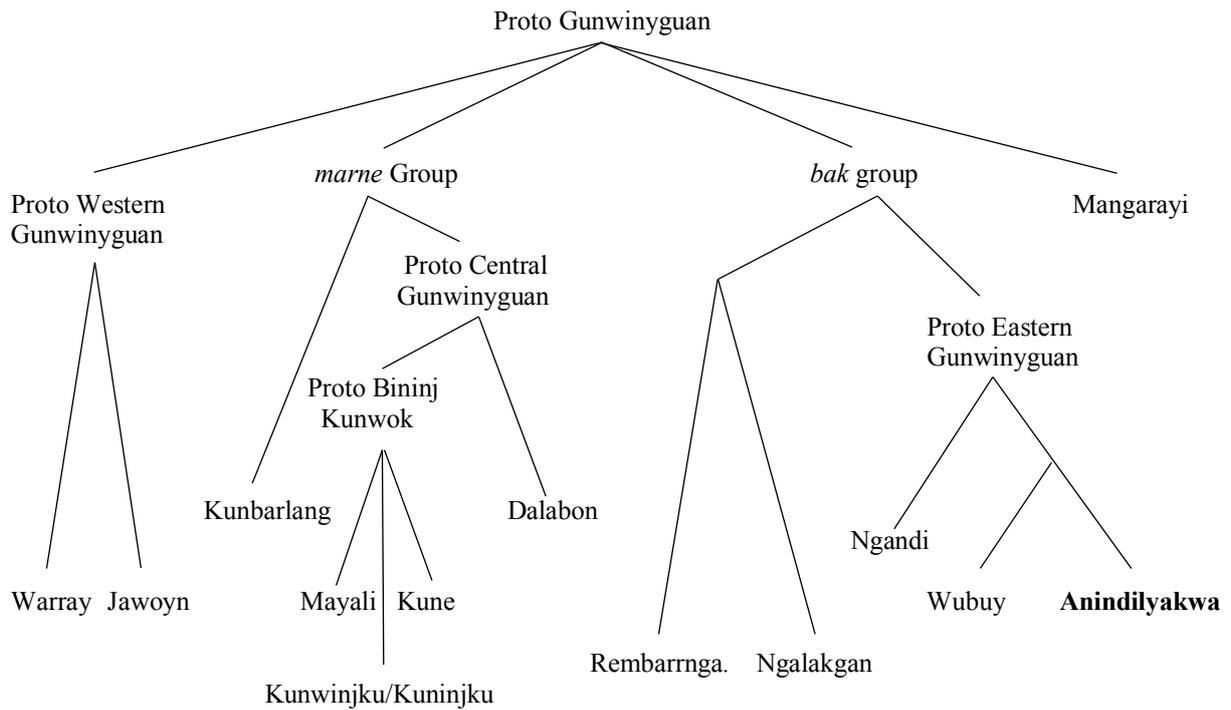


Figure 1.1 Gunwinyguan language family (based on Alpher et al 2003, expanded to include Anindilyakwa (van Egmond 2012))

1.2.2 *Brief history of Warnumamalya, their country and their language*

Anindilyakwa is spoken on the Groote Eylandt archipelago, an archipelago located 43 kms east of the Arnhem Land coast, consisting of over one hundred islands (ranging in size from small rocky outcrops tens of metres across, to Groote Eylandt, the largest landmass in the archipelago (and the fourth largest island in Australia), covering 2,326 km²) (Clarke 1994: 22). See Map 1.2, demonstrating the geographical location of the Groote Eylandt archipelago, as well as its location with respect to neighbouring language groups.



Map 1.2 Languages of northern Australia (Harvey 2008)

The archipelago broke away from the mainland (at the time, the supercontinent Sahul (current day Australia + Papua New Guinea)) at around 7,000 BP (Prebble, Sim, Finn & Fink 2005: 358). While separation from the mainland occurred at this time, archaeological, anthropological and linguistic evidence suggests an original settlement date of the Groote Eylandt archipelago to be more recent, perhaps around 3,000 BP (van Egmond 2012: 7).

There are 14 clan groups of the archipelago, which divide into two exogamous patrilineal moieties, each containing seven clans (see Table 1.1). These moieties are not named; people refer to them as ‘Moiety 1’ and ‘Moiety 2’, or with ego-centric reference used to distinguish them: *yirr-enikabər̄ra* ‘us, our moiety’ and *wurr-enikabər̄ra* ‘them, their moiety’. This is in contrast to named moieties of the mainland (Turner 1986: 34).

Moiety 1		Moiety 2	
Clan name	Surname	Clan name	Surname
<i>Wurringkilyangba</i>	Wurragwagwa	<i>Warnindilyakwa</i>	Mamarika
<i>Warnungangurrkwurrikba</i>	Yantarrnga	<i>Warnungwamakwula</i>	Amagula
<i>Wurramaminyamanja</i>	Maminyamanja	<i>Warnungangkurrakba</i>	Wurramara
<i>Warnungwamadada</i>	Lalara	<i>Warnungwamulangwa</i>	Bara Bara
<i>Warnungawerrikba</i>	Wurrawilya	<i>Wurraliliyanga</i>	Wurramarrba
<i>Warnungwijarrakba</i>	Jaragba	<i>Warnungwamakajirrakba</i>	Wurramarrba
<i>Warnungwadarrbulangwa</i>	Bara/ Wurrabadalamba	<i>Warnungangwurrerra</i>	Durilla

Table 1.1 Groote Eylandt clan names, and corresponding surnames (chosen in the 1950s to comply with government requests) (from Waddy 1988: 110)

Four clan groups (*Warnungangwurrerra* (Durilla), *Warnungwamadada* (Lalara), *Wurringkilyangba* (Wuragwagwa) and *Warnungwadarrbulangwa* (Bara/ Wurrabadalumba) migrated to the Groote Eylandt archipelago within historical memory (Moore 1975; Turner 1974; Waddy 1988; Clarke 1994).

Warnumamalya have strong ties with neighbours on mainland eastern Arnhem Land, through ceremony, trade and exchange, song lines (routes taken by ancestral beings), marriage, and migration of people in recent times (Tindale 1925-26; Worsley 1954; Rose 1960; Turner 1974; Waddy 1988; Clarke 1994). There are particularly strong ties with Nunggubuyu people, particularly through the *Warnungangwurrerra*, *Warnungwamadada*, *Wurringkilyangba* and *Warnungwadarrbulangwa* clans, and accordingly Wubuy is not an uncommon language for *Warnumamalya* to know and speak (although mainly only for middle-aged and older generations of people).

Outside contact was first experienced when Macassan fishermen began visiting (from the Indonesian port of Macassar, southern Sulawesi) in the late seventeenth century. The Macassans would visit yearly to trade with Groote Eylandters. This lasted until 1906, when a change in policy from the Australian Government (the White Australian Policy) was enforced (MacKnight 1976).

Dutch explorers also visited the Gulf of Carpentaria in the seventeenth century, but left little record of doing so, aside from Abel Tasman naming the island: Groote Eylandt ('big island' in old Dutch spelling). The first record of Indigenous presence on the Groote Eylandt

archipelago was made by Matthew Flinders during his 1802-3 circumnavigation of Australia, when he noted rock art on Chasm Island (Clarke 1994: 24).

European settlement of Groote Eylandt began in 1921, with the establishment of the Church Missionary Society Mission⁴.

The Groote Eylandt Mining Company Pty Ltd (GemCo) was established in 1964, mining the rich supply of manganese of Groote Eylandt⁵. The establishment of the mine has had a profound effect on the communities of the archipelago, such as the establishment of the mining town Alyangula, the influx of GemCo employees from outside Groote Eylandt, environmental effects of the mine on the archipelago, and the economic outputs that the mine feeds back into the community through royalty payments, and programs and activities administered by the Anindilyakwa Land Council.

1.2.3 Present-day speech community

Anindilyakwa is spoken by at least 1,500 people living on Groote Eylandt and neighbouring Bickerton Island⁶. In the context of Australian Aboriginal languages, it is a fairly vibrant language: one of the few whose speaker numbers have dramatically increased over the last century⁷, and one of the few that is still being acquired by children.

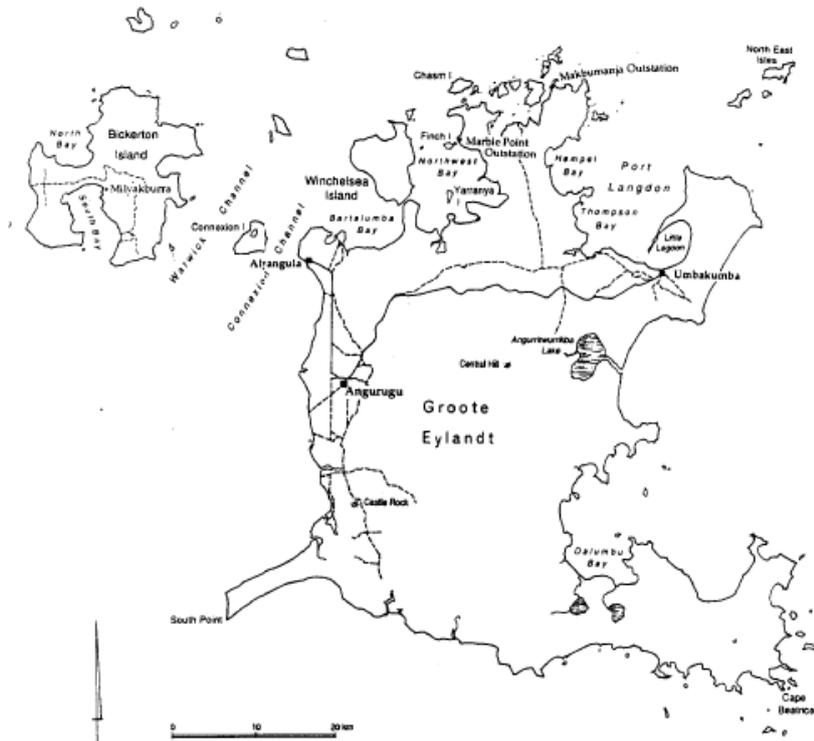
There are four towns in the Groote Eylandt archipelago (see Map 1.3). Most *Warnumamalya* live in Angurugu (located on the western side of the island, not far from the former Church Missionary Society Mission (established in 1921)), or at Umbakumba, the settlement established by Fred Gray in 1938 in the north-east corner of the island. There is a small third community, Milyakburra, on Bickerton Island (17 kms west of Groote Eylandt, and 10 kms east of the mainland). The fourth town, Alyangula, is a mining town, whose residents are predominantly *Wurrəmangkadhərri* (non-Indigenous people). In addition to these towns, there are various outstations which have been established in clan territories (Clarke 1994: 22).

⁴ See Rademaker (2018) for a historical account of the Emerald River Mission and the influence of the Church Missionary Society on Groote Eylandt.

⁵ The mine supplies about a quarter of the world's manganese.

⁶ The 2016 ABC Census recorded 1,478 people reporting to speak Anindilyakwa, including 377 children under 14. However, this is likely an underestimate.

⁷ The population of Groote Eylandt archipelago was estimated to be around 300 in 1921 (Tindale 1925-26: 64), and between 300-350 in 1941 (Rose 1960: 12).



Map 1.3 The Groote Eylandt archipelago, showing the communities of Alyangula, Angurugu, Umbakumba and Milyakburra (from Clarke 1994: 25)

Across the archipelago, *Warnumamalya* from all generations speak Anindilyakwa as their first language. Everyone has at least some English proficiency, however this varies from person to person. Unlike on the mainland, Kriol is not prevalent on Groote Eylandt, although it is becoming more common to hear it spoken, particularly given the high social mobility between Groote Eylandt and Numbulwar (where the lingua franca is Kriol).

People hold strong perceptions and attitudes to their language/language variety and to the language used by other Anindilyakwa speakers. Particularly, there are strong folk perceptions of sociolectal differences between Angurugu and Umbakumba (where it is often claimed that Umbakumba language is ‘stronger’). My research doesn’t demonstrate any particular differences in the language of the participants with whom I worked, on the basis of whether their residence/association is with Angurugu, Umbakumba or Milyakburra, however this was not a particular objective of this project, and was not examined in detail. It is left to future research to investigate any sociolectal differences between language varieties of the Groote Eylandt archipelago.

1.3 Fieldwork and data

This section provides a background to previous research that has been conducted on Anindilyakwa, and its relationship with the current project (§1.3.1), before overviewing the setting in which fieldwork for the project took place (§1.3.2), providing background about the Anindilyakwa speakers who were involved in the project (§1.3.3), and information about data collection methods (§1.3.4).

1.3.1 This study in relation to previous research

Anindilyakwa has received a reasonable amount of documentation, dating back to the 1920s, where preliminary lexical documentation was undertaken by Norman Tindale (1925-1926) and Arthur Capell (1942). Early attempts at describing Anindilyakwa phonology and morphology were carried out by means of an MA thesis by Mary Moody (1954) (89 pages) covering phonology and basic morphology, an article by Peter Worsley (1954) (14 pages) concerned with noun incorporation, and a short unpublished sketch grammar by Jeffrey Heath (n.d.) (69 pages) consisting of information pertaining to phonology, nominal and verbal morphology and kin terms (compiled after spending several weeks, between 1975-77, with an Anindilyakwa speaker in Numbulwar).

These early grammatical descriptions were greatly extended by the work of three missionaries, Judith Stokes, Julie Waddy and Velma Leeding, each of whom lived on Groote Eylandt for several decades between 1952-2005. Stokes lived on Groote Eylandt between 1952-1989, working as a missionary, teacher and linguist. During this time she amassed a large collection of audio recordings, and produced a sizable amount of descriptive material about Anindilyakwa. She published two articles, Stokes (1981) on Anindilyakwa phonology (41 pages), and Stokes (1982) on mathematical concepts in Anindilyakwa (120 pages), however the vast majority of her work went unpublished. Of particular interest are two unpublished manuscripts; Stokes (n.d.-a) ‘Anindilyakwa Sentences’ from 1971 (48 pages) and Stokes (n.d.-b) ‘Anindilyakwa clauses’ from 1984 (128 pages). Waddy lived on Groote Eylandt between 1975-2005, working as a missionary, ethno-botanist and linguist. Her PhD thesis (Waddy 1984 (313 pages), published as Waddy 1988 (231 pages)) in ethno-botany provides a classification of plants and animals from a Groote Eylandt perspective. Waddy (1998) ‘Relative Clause strategies in relation to Anindilyakwa’ is a conference proceedings article, examining relative clauses in Anindilyakwa (8 pages), and is a revision of Waddy (n.d.-a) (an unpublished

manuscript written in 1987 (14 pages)). As with Stokes, the majority of Waddy's linguistic work is unpublished, including Waddy (n.d.-b) 'Case marking' written in 1997 (34 pages) and Waddy (n.d.-c) 'Morphology statement', which overviews various morphological topics, written in 1990 (56 pages). Leeding lived on Groote Eylandt between 1974-2004, working as a linguist/teacher-linguist. Her PhD thesis (Leeding 1989, 532 pages) is a grammatical description of the language, addressing phonology, morphology and semantics, across all word classes. In addition, Leeding (1996) (a 57 page article) provides further information about body part nominals.

The most recent linguistic work on Anindilyakwa is van Egmond (2012)⁸, a PhD thesis which provides the most comprehensive description of the phonology, morphosyntax and genetic position of Anindilyakwa to date, expanding on previous descriptions and analyses.

My thesis expands upon this sizeable body of work, and extends it in several key areas. Of central concern is the inflectional TAM system of the verbal complex, whose complexities have proven difficult to analyse, resulting in multiple different (and often unsatisfactory) analyses in previous descriptions. This thesis (particularly in Chapters 6 and 9) therefore provides a reanalysis of the TAM inflectional system, building on these previous analyses, but demonstrating areas that have been either overlooked or misanalysed. Staying within the verbal complex, I examine Aktionsart/event structure aspect properties in detail (Chapters 4 and 5), which have previously not been considered (or else only very peripherally) in the existing literature. In considering Aktionsart/event structure aspect, several important temporal adverbials are examined, building upon work by Leeding (1989). I also consider the semantics of other non-inflectional aspectual marking (Chapters 5 and 7), extending research by Leeding (1989) and van Egmond (2012) on reduplication, prosodic lengthening and aspectual adverbials. Finally, in examining more complex interaction and constructions involving inflectional TAM morphology and clitics in both independent and dependent clauses (Chapters 8 and 10), I build upon the work of Stokes (n.d.-b), van Egmond (2012), and Waddy (1998; n.d.-a; n.d.-b).

⁸ Data collected by van Egmond for her 2012 thesis is deposited with the Endangered Languages Archive (ELAR): <http://elar.soas.ac.uk/deposit/0144>.

1.3.2 *Fieldwork setting*

My fieldwork was conducted over seven trips to Groote Eylandt, between 2015 and 2019, totalling 66 weeks. My first trip, June-July 2015 (x4 weeks), was a preliminary scouting trip, during which very little data was collected. My accommodation during this trip was at Pole 13, a small out-station 1.7 kms from Alyangula (between Alyangula and Angurugu). I commuted to Angurugu most days, and made a small number of visits to Umbakumba and Milyakburra communities. My second trip, March-August 2016 (x23 weeks), was my main data collection fieldtrip⁹. I lived in Angurugu for the duration of my stay, but made weekly or fortnightly day-trips to Umbakumba, and occasional visits to Milyakburra. During 2017 I made three short trips to Groote Eylandt, in April (x2 weeks), June-July (x4 weeks) and October-November (x4 weeks). For all of these trips I stayed in Angurugu, aside from x2 weeks in June, where I stayed in Alyangula (and commuted daily to Angurugu). The April 2017 trip was focussed on transcribing and recording back-translations of previously collected material, the June-July 2017 trip was primarily for the purpose of further data collection, and the October 2017 trip was for work unrelated to this thesis, where I was engaged as a consultant with the Groote Eylandt Language Centre. In 2018 I made my sixth trip to Groote Eylandt (x2 weeks). This visit was mainly for the purpose of data checking, with a small amount of data collection. My final trip commenced in February 2019, and is currently ongoing (x27 weeks at the time of submission). I completed writing this thesis in the field, with the luxury of having Anindilyakwa speakers on hand for last-minute checks and revisions.

1.3.3 *Anindilyakwa language consultants*

Between 2015-2019 I worked with 20 Anindilyakwa speakers, including ten who reside in Angurugu, six in Umbakumba, and four in Milyakburra. This number consists of five men, and 15 women, ranging in age from 30s to 60s (see Appendix F for further demographic details about speakers involved in this project). These 20 participants were involved in language documentation and recording, across a range of domains and genres, from structured elicitation sessions, semi-structured data collection using visual stimuli, translation activities, as well as free narrative and conversational recording (see §1.3.4 for further information about data

⁹ I was joined in the field by one of my supervisors, Dr. Patrick Caudal, for x3.5 weeks in July 2016, and again for a further x3.5 weeks in June-July 2017.

collection). While I worked with all of these 20 participants, the vast majority of my fieldwork and recording involved three primary Anindilyakwa speakers from Angurugu; Judy Lalara, Sylvia Tkac and Carol Wurramara. These three naturally linguistically talented and creative language speakers have a background working in areas of translation and interpreting, have well-honed language judgements, and are literate in both Anindilyakwa and English. This impressive skill-set meant that elicitation, translation tasks and grammaticality judgement tasks could be undertaken through both oral and written mediums.

As a consequence of speaker availability, the majority of the data I collected comes from a particular demographic: middle-aged to older women from Angurugu community. While the topics I examine in this thesis appear to be consistent across the participants I worked with (with no noticeable differences demonstrated according to geography, age or gender¹⁰), the bias towards this particular demographic should be kept in mind.

1.3.4 Data collection

Data for this project consists of data collected specifically for this project by the author in 2015-19, in addition to legacy material from the 1970s-90s.

The 2015-19 collection consists of elicited, semi-elicited, free narrative and conversational material, totalling audio recordings of 54hrs 29mins 26secs. This data is archived with PARADISEC¹¹. From the recordings that have been transcribed, the number of words in this collection currently stands at 54,491. Given the nature of this project, the majority of the data collected was elicited or semi-elicited data. This was necessary for two primary reasons; i) the need to be able to systematically, and unambiguously examine and differentiate different TAM categories (and eliminate as much unnecessary ‘noise’ as possible); ii) to be able to examine data that occurs too infrequently in natural discourse. Different elicitation and semi-elicitation methods were employed, including i) TAM questionnaires (where speakers were asked to translate English sentences, or react to verbally described contexts and

¹⁰ While the topics examined in this thesis appear consistent across the participants with whom I worked, the focus of this study was not language variation or language change, and so this would need to be investigated further. It appears that some areas of the language have been changing over the last several decades, such as the loss of some number marking distinctions of the verb (e.g. trial), and less productive use of nominal incorporation by younger speakers. While the TAM topics I examine in this study appear fairly consistent across different participants with whom I conducted fieldwork, as well as with legacy data collected in the 1970s-90s, more in depth research on variation and change of the TAM system needs to be conducted, and it will be up to future research to examine this.

¹¹ Pacific and Regional Archive for Digital Sources in Endangered Cultures. This 2015-19 collection can be accessed at: <http://www.paradisec.org.au/repository/JRB1>.

scenarios); ii) grammaticality judgment tasks; iii) verb paradigm and sentence flashcard games; iv) description of video stimuli; v) description of picture and story board stimuli; and vi) semi-structured storytelling. These elicitation methods are explained in more detail in §1.3.4.1. Of course, elicited and semi-elicited data were complemented by free narrative material, and some conversation material.

The legacy collection consists of two sub-collections; i) the Stokes & Waddy collection, which consists of narratives recorded in the 1970s-90s, from a range of speakers, and across a range of genres (including traditional dreaming stories, contemporary stories and recounts, procedural texts), and totals ~42,000 words; ii) the ‘Mini-Bible’ (Bible Society in Australia 1992), a translation in Anindilyakwa of the first six books of the Bible, and which totals over 1,000 pages, and ~90,000 words.

The use of these different, disparate collections, which span different genres and time periods is not ideal; it is difficult, of course, to compare e.g. elicited data from 2019 vs. free narrative data from 1970 vs. translated data from 1990. However, for a small-scale, underdescribed language like Anindilyakwa, it is necessary to make use of all available resources (while of course giving more weight to certain resources over others). I have been careful to check that claims I make using, e.g. elicited data (systematically examining very fine-grained distinctions) are borne out, whenever appropriate, in e.g. free narrative discourse. I believe that using such a range of language data¹² carefully, (for instance, by verifying and checking different data sets against each other in order to control for consistency), allows one to be fairly confident about making claims on the basis of this data. Of course, more research can and should be conducted in regard to variation (both synchronic and diachronic) in Anindilyakwa, and perhaps these collections offer the possibility for such research. Nonetheless, for the sake of the research project that I have undertaken using these different collections, I am confident that the claims I make hold over the different collections and genre types, and are not an anomaly of one data type.

¹² I.e. elicited and semi-elicited data (collected in 2015-19); free narrative and conversation material (collected in 2015-19); translated material (published in 1992, and presumably collected in the decade or so before); and free narrative material (collected in the 1970s-90s).

1.3.4.1 2015-19 collection: data collection methods

My data collection has involved a range of methods ranging from structured elicitation sessions, semi-elicited contexts using stimuli as prompts to collect structured and replicable data, as well as the collection of free narratives and conversational material.

Elicited data

Given the morphological complexity of the verbal complex (in which a single transitive verb can generate almost 2,000 different inflected forms), in combination with the rarity with which some TAM categories arise in natural contexts, elicitation methods were required in order to collect sufficient data, as well as to garner more a nuanced understanding of the semantics of these forms. This was done through a number of methods:

- i) Tense/aspect and modality questionnaires (see Appendix H for questionnaires): participants translated key English sentences or short scenarios into Anindilyakwa. These were presented to participants after providing contextual information about the situation, in order to avoid any ambiguities.
- ii) Checking of Anindilyakwa translations/responses, and back-translating sentences (from the collected Anindilyakwa responses, back to English) by Anindilyakwa speakers;
- iii) Testing of judgements about truth and felicity conditions;
- iv) Verb flash cards for paradigm elicitation: permissible and impermissible paradigmatic verb forms were checked;
- v) Semi-structured story-telling/elaboration: speakers would provide short (oral) stories or elaborate on talking points, following discussion flowing from elicitation.

Semi-elicited data

In order to collect data focussed on the examination of aspectuo-temporal readings, staged video stimuli were used as the primary semi-elicited data collection method. The video stimuli used came from the *Event Description Elicitation Database* (EDED)¹³, developed by Patrick

¹³ Caudal, Patrick, Robert Mailhammer & James Bednall. 2013-2016. *The Event Description Elicitation Database* (EDED). U. Paris-Diderot / U. Western Sydney.

Caudal and Robert Mailhammer. The stimuli set is a database of ~150 short video clips, designed as a kind of video questionnaire to elicit different aspectuo-temporal categories. The videos are designed to examine inflectional aspectuo-temporal categories, Aktionsart/event structure parameters, and complex event structures (such as pluractionality, serial verb constructions, and complex series of events). The database was originally designed to be carried out with languages of northern Australia, however when testing the series of videos with Anindilyakwa participants it became clear that many of the existing videos were not useful in eliciting the targeted aspectuo-temporal readings due to syncretisms of particular verb classes in Anindilyakwa. A new set of videos was therefore developed, by Caudal and the author, to target Anindilyakwa in particular. Videos were played to participants (sometimes individually, sometimes in groups of up to three), and speakers would be asked to describe the video under different scenarios (e.g. to describe the video as if it happened yesterday/ to describe the video as if it was happening now/ to describe the video as if it happened a long time ago/ etc.). See Appendix G for a list of stills and examples of the EDED videos used in this project.

In order to collect modal data in semi-elicited environments, a mix of video and picture stimuli was used. The Pear Story (Chafe 1980) was played (twice) to participants: during the first viewing the video would be stopped intermittently and the participant asked to guess or hypothesise about narrative elements of the story (that were about to occur); during the second viewing the video was again stopping intermittently, but this time the participant asked about past counterfactual scenarios, which could have eventuated but didn't (e.g. what would've happened if the boy had dropped the pear...?).

The Totem field storyboards (<http://totemfieldstoryboards.org>) were used to prompt different modal scenarios, particularly counterfactuals and future-less-vivid situations. These storyboards involve pictures (with no text), which together comprise a short story or scenario. I would read through the stories together with the participant first, in order that the speaker understood the general gist of the story, and this would be followed by the speaker providing a retelling in Anindilyakwa.

Free narrative and conversational data

Twenty free narratives, ranging in length from 2-21 mins, were recorded with ten different Anindilyakwa speakers. Conversational material was more limited, with three conversational/interactional contexts recorded: i) a situation involving three middle-aged ladies

catching a crab in the mangroves, and navigating with each other how to ensnare the crab (15min 30sec); ii) a situation involving a grandmother and grandson, trying to spear crabs in the mangroves (6min 30sec); and iii) a situation where four middle-aged ladies were collecting, preparing and cooking pipi shells (30min 30sec).

1.3.4.2 Legacy collections

Stokes & Waddy collection (1970s-90s)

The Stokes & Waddy collection is a ~42,000 word collection of narratives collected in the 1970s-90s, mainly in Angurugu, by a range of speakers, and across a range of genres (traditional dreaming/totem stories, contemporary stories and recounts, procedural texts, religious sermons, etc.). I had access to audio recordings to some material, and only transcripts for others. The audio recordings and manuscript transcriptions of this collection is housed at the Groote Eylandt Language Centre, as well as deposited with AIATSIS¹⁴ (Groote Eylandt Collection MS3518 (MAR12/017); Groote_E01 Collection (A014780-A014828; A014913-A014974); Waddy_J01 Collection (A006078-A006082); Waddy_J02 Collection (A006083-A006087)).

Mini-Bible (translated data) (1992)

This ‘Mini-Bible’, published by the Bible Society in Australia in 1992, is an Anindilyakwa translation of the first six books of the Bible, totalling over 1,000 pages, and ~90,000 words¹⁵.

1.4 Some theoretical underpinnings

1.4.1 TAM assumptions followed in this thesis

In this section, I provide very brief assumptions I make throughout this thesis regarding temporal reference, tense, aspect, modality and mood. These terms and assumptions are only briefly discussed here, in order that the reader will be familiar with some of the basic and

¹⁴ The Stokes & Waddy collection can be accessed from AIATSIS: <https://aiatsis.gov.au/collections/search-collection>.

¹⁵ An electronic copy of the Anindilyakwa Bible can be accessed at: https://ebible.org/pdf/aoi/aoi_a4.pdf.

preliminary assumptions that carry through the thesis. However, more detailed accounts are introduced alongside relevant discussion of the Anindilyakwa data: see §§6.1.1-6.1.2 for discussion of temporal reference and tense, §§4.1-4.2 for aspect (viewpoint aspect and Aktionsart/event structure), §9.1 for modality, and §3.4 for mood.

Time, tense and temporal reference

Temporal reference concerns the temporal relation between the time at which an utterance is made and the time to which the utterance refers (Klein 1994). Following Klein (1994), temporal reference of a matrix clause concerns a threefold distinction between the time at which a sentence is uttered (the utterance time (UT)), the time at which the situation is located (the situation time (TSit)), and the time about which the speaker makes a claim (i.e. the time about which an assertion makes a statement, an interrogative asks a question or an imperative issues a command (Bohnenmeyer 2009: 83) (the reference time, or topic time (TT)) (Mucha 2013: 189).

In all languages temporal reference ‘is context dependent, anaphoric, and [can be] influenced by temporal adverbials’ (Tonhauser 2015: 149).

In some, but not all, languages, temporal reference can be expressed grammatically on the verb, referred to as tense. Tense is an anaphoric category of the verb, which ‘indicates a temporal relation between the situation described by the sentence and some deictically given time span’ (Klein & Li 2009: 42-3).

Aspect: viewpoint aspect and Aktionsart/event structure

I assume a two-component theory of aspect (*à la* Smith 1991 [1997]), distinguishing between viewpoint aspect and Aktionsart/event structure. Viewpoint aspect is the grammatical marking of the speaker’s perspective of the event, denoting how much of the event is made visible (e.g. the whole event, or only a subpart of an event). This is generally expressed through inflectional tense-aspect marking. Aktionsart/event structure refers to the internal aspectual properties of situations; i.e. determined by the disambiguated, contextualised semantics of the verbal complex (Caudal 2012: 272).

Modality and mood

Modality concerns the status of the proposition that describes a situation (Taleghani 2006: 31), and is associated with the notions of possibility and necessity (Kratzer 1981: 39). Modality expresses ‘the speaker’s general intent and... degree of commitment towards a proposition... [It indicates] a relation between the actual world in which a situation occurs, and the worlds in which the expressed situation is evaluated’ (van de Vate 2011: 131).

I assume mood to cover two related notions: (i) what is sometimes termed sentential mood: this refers to sentence types and concerns illocutionary functions (declarative, interrogative, imperative, etc.); and (ii) verbal mood: these are categories that are grammatically dependent on modality expressed elsewhere in the sentence (e.g. indicative vs. subjunctive mood) (Portner 2009: 6).

1.4.2 Theoretical frameworks and approaches

This thesis isn’t couched in a particular theoretic perspective or framework, but draws from a range of approaches. It is particularly influenced by typological/comparative approaches, and by some approaches drawn from the formal semantic/pragmatic domain.

Typological/comparative and ethnopragmatic approaches

Typology and linguistic theory must establish cross-linguistic categories on empirical grounds. In the description within this thesis, categories used are established on distributional grounds, and I endeavour to define categories explicitly in order that this makes the descriptions usable and relevant for a readership of typologists, theoreticians and descriptive linguists.

Formal semantic and pragmatic approaches (incl. approaches to discourse-structural parameters)

In examining modality in particular, I follow a generally Kratzerian possible-worlds-based theory of modality in this thesis, based on two important notions of (i) relative modality, and (ii) ordering semantics. This is discussed in detail in §9.1.

In examining aspectuo-temporal parameters, I make use of the dynamic semantic framework of Segmented Discourse Representation Theory (Asher & Lascarides 2003).

Frameworks such as SDRT provide dynamic semantic interpretations of tense, demonstrating how ‘time is updated in discourse depending on a number of factors such as aspect (lexical and grammatical) and use of temporal adverbials’ (Ritz & Schultze-Berndt 2015: 9). Such formal approaches to the representation of meaning in discourse argue that we can use discourse relations that link together different segments of a discourse in order to understand choices of tense/aspect inflections (Asher & Lascarides 2003). I consider the SDRT framework primarily in Chapter 6, examining inflectional tense-aspect, and I provide a brief introduction to SDRT and discourse relations in §6.1.5.

Chapter 2

An overview of the verb and verbal morphology

The verb is one of two open word classes that I recognise in Anindilyakwa (the other being nominals¹⁶). In addition to these open classes, I recognise two smaller closed word classes; particles and interjections¹⁷. Verbs and nominals both have the potential to take affixes, while particles and interjections are non-inflecting, and generally non-predicational¹⁸.

The verb warrants an introductory chapter, given that it is the central word class that involves TAM marking in Anindilyakwa. Chapters 4-10 are concerned with different properties of the verbal complex in relation to TAM expression, thus this chapter serves predominantly as a general reference, in anticipation of these chapters. In particular, I draw the reader's attention to i) the morphological properties of the verbal complex (§2.2) and (ii) the structural properties of the verb, including the verb stem and derivational/inflectional affixes (§2.3). I also include here introductory overviews of the phonological Ø marking of the [+3] slot of the verb template (§2.4) and the multifunctional =*ma* ~ =*mər* marker (§2.5); as well as information regarding the structure and function of nominalised verbs (§2.6).

¹⁶ The nominal class is a supercategory encompassing open (nouns, adjectives) and closed subclasses (free pronominals, demonstratives, interrogatives, adverbials).

¹⁷ Nominals (adverbials and some predicational adjectives), particles and interjections are overviewed in Appendix A. Further information about other word classes, as well as information regarding phonology and orthographic conventions is also contained in this appendix (and references contained therein).

¹⁸ Interjections can occasionally have complex meanings, however these meanings exceed the scope of this thesis, and are not dealt with in this research project.

An outline of the verb stem, taking into account synchronic and diachronic structural features of the verb stem, is important to discuss, in light of the examination of Aktionsart/event structure properties of the verb in Chapter 4. Likewise, by laying out the verbal template, introducing the inflectional and derivational affixes of the verb, and providing an overview of the morphological structure of the verbal complex, I pave the way for following discussion involving inflectional TAM markers, particularly in Chapters 5, 6, 7 and 9. I provide a preliminary introductory note regarding phonological Ø marking of the [+3] slot of the verb template, given there are several motivations for this (explained in detail across various sections of the thesis), thus a brief explanatory note will assist the reader in better interpreting and understanding example sentences and glosses. The =*ma* ~ =*m̄arra* marker is a frequently occurring, multifunctional morph, and a discussion of the semantic and distributional properties of this marker is necessary, particularly given the interplay between this =*ma* ~ =*m̄arra* marker and inflectional verbal morphology (see Chapter 6). Nominalised verb structures are discussed in the context of complex clauses in Chapters 3, 8 and 10, necessitating their introduction in this chapter; and a brief background to stress patterns with respect to verbs will aid discussion and analysis across all the following chapters involving the verbal complex.

2.1 Introduction

Verbs are distinguished by their complex inflectional morphology, with clear morphological differences distinguishing verbs as a word class from nominals (as discussed in Appendix A). Morphologically, the verb is the most complex word class in Anindilyakwa, marking person, number, modality and transitivity in a series of portmanteau prefixes; TAM expression through combining information from at least two morphological slots of the verb structure (paradigms of portmanteau prefixes and TAM suffixes); argument expression through derivational affixes (incl. the BENEFACTIVE, REFLEXIVE, RECIPROCAL and CAUSATIVE affixes); and additionally verbs have the ability to productively incorporate nominals. To provide a demonstration of this morphological complexity, if we were to take into account all the different possible paradigmatic combinations of portmanteau prefixes and TAM suffixes¹⁹, a transitive verb generates a possible 1,912 different inflected forms.

¹⁹ That is, combinations of the REALIS/IRREALIS/DEONTIC portmanteau prefix + PAST/NON-PAST/Ø/POTENTIAL TAM suffix paradigms (discussed in detail in Chapters 6 and 9).

The verb has a templatic structure – that is, a flat structure in which the ordering of affixes has ‘no apparent connection to syntactic, semantic or even phonological representation’ (Inkelas 1993: 560, cited in Nordlinger 2010). This template is overviewed in §2.3.

2.2 Morphological composition and complexity, and the combinatorics of TAM marking

The verb in Anindilyakwa involves a complex morphological make-up and combinatorics. This is particularly evident when considering TAM expression, which is realised through combining information from at least two discontinuous morphological slots of the verb structure (paradigms of portmanteau prefixes and TAM suffixes), each of which is necessary in providing a precise and meaningful interpretation of the inflected verb. Compare examples (2.1) and (2.2) where the combination of the REALIS portmanteau prefix and PAST TAM suffix expresses a past temporal reading of the inflected verb in (2.1), while the combination of the IRREALIS portmanteau prefix and NON-PAST TAM suffix expresses a future temporal reading of the inflected verb in (2.2).

- 2.1) *James n-angaba ni-yedha-ngə=ma Numbulwar*
 James 3M-that.over.there REAL.3M-arrive-PST=MUT place.name
arakba
 COMPL.ACT
 ‘James already arrived in Numbulwar’ [speaker translation]
 (JL, JRB1-018-01, 00.04.07)
- 2.2) *nganyangwa nabə-rraka kəni-yedhe-na=ma*
 1.PRO.POSS 3M.son-1.KIN IRR.3M-arrive-NPST=MUT
adhənuba
 in.short.time
 ‘My son will arrive soon’
 (JL, JRB1-044-01, 00:11:37-00:11:44)

While the inflectional system of the Anindilyakwa verb is seemingly fairly transparent, and one could propose a unique one-to-one relationship between inflectional content and form (i.e.

canonical exponence²⁰) in most cases, there are instances where this is not quite so straightforward, and where alternative approaches might be entertained in order to better analyse and explain the system.

In the morphological literature a major difference in theoretical approach exists between Item-and-Arrangement approaches vs. Word-and-Paradigm approaches to morphology. Item-and-Arrangement approaches are lexical (i.e. portray the association between an inflectional marker and the set of morphosyntactic properties it represents as being very much like the association between a lexeme's root and its grammatical and semantic properties (Stump 2001: 1)) and incremental (i.e. information-increasing, where words acquire morphosyntactic properties as a concomitant of acquiring the inflection exponents of those properties (Stump 2001: 1), while Word-and-Paradigm approaches are inferential (i.e. where the associations between a word's morphosyntactic properties and its morphology are expressed by the morphological rules which relate that word to its root (Stump 2001: 1)) and realisational (where a word's association with a particular set of morphosyntactic properties licenses the introduction of those properties' inflectional exponents (Stump 2001: 2)).

An Item-and-Arrangement approach assumes a productive form/meaning process (being a lexical-incremental approach), in line with classical compositional semantic approaches, while for an inferential-realisation approach, like the Word-and-Paradigm approach, we instead assume that we are dealing with conventionalised form/meaning pairings.

For Anindilyakwa, there are a number of reasons why I favour a Word-and-Paradigm approach (i.e. an inferential-realisation approach), in order to provide a satisfactory analysis of non-canonical exponence in particular.

While a lexical-incremental approach could be employed and be used successfully to explain most aspects of the verbal system in Anindilyakwa (for example, one could propose a one-to-one mapping between function and form the PAST TAM marker, used only in the expression of past temporal anchoring of situations, thus within an Item-and-Arrangement framework one could suggest that this morph combines incrementally with the portmanteau prefix series in expressing the different possible TAM readings available), there are some potential difficulties with this kind of approach in other areas of the inflectional TAM system, discussed below.

²⁰ Exponence being the association between inflectional markings and morphosyntactic and morphosemantic properties (Stump 2001: 11).

The combinatorial space of the inflectional affixal paradigms used to express different TAM readings is not fully exhaustive, with not all formally possible combinations of morphs used to create grammatically acceptable readings (displayed in Table 2.1). Out of a possible 12 positive polarity TAM categories, involving the combination of a three series of portmanteau prefixes and four TAM suffixes, only ten are grammatically acceptable. The POTENTIAL TAM suffix can occur only with the IRREALIS and DEONTIC portmanteau prefix paradigms (and not the REALIS), and the PAST TAM suffix cannot occur with the DEONTIC portmanteau prefix paradigm.

An explanation for the unacceptability of the REALIS-V-POTENTIAL paradigms might be provided semantically, given the potential for a semantic motivation for the acceptability of the POTENTIAL suffix, which is disallowed with the REALIS portmanteau prefix series, but permitted with the modal IRREALIS/DEONTIC portmanteau prefixes (i.e. there being a selectional restriction on the distribution of the POTENTIAL suffix).

A semantic explanation for the unacceptability of the DEONTIC-V-PAST paradigms might also be provided semantically, given that this paradigm is involved only in speech acts with directive illocutionary force (i.e. imperatives, hortatives, jussives), and therefore there would be an expectation that past temporal reference be disallowed (see §9.4).

Portmanteau prefix	Verb stem	TAM suffix
REALIS-	Verb.Stem	-NON-PAST
		-PAST
		-Ø
		-POTENTIAL
IRREALIS-		-NON-PAST
		-PAST
		-Ø
		-POTENTIAL
DEONTIC-		-NON-PAST
		-Ø
		-PAST
		-POTENTIAL

Table 2.1 Grammatically acceptable combinations of pronominal prefix and TAM suffix paradigms in positive polarity contexts

In negative polarity contexts, there are even less possible combinations of morphs available (Table 2.2). Of the 12 categories considered above, only two are grammatically acceptable in negative polarity contexts: the combination of the IRREALIS and either the PAST or NON-PAST TAM suffixes. And of these two categories, the combination of IRREALIS and NON-PAST paradigms is very infrequent, occurring in very restricted contexts: only with reduplicated stems, in order to express negative habitual readings. In place of the other combinations used in positive polarity contexts, a unique circumfix (NEGATIVE.NON-PAST-V-NEGATIVE.NON-PAST) is instead employed. This is displayed in Table 2.2.

Of course, it is not uncommon cross-linguistically for there to be restrictions on the interaction between negation and inflectional TAM categories, and in Anindilyakwa if one assumed that negation selected for certain modal types this could be used to explain the possible grammatical combinations in negative polarity contexts.

Portmanteau prefix	Verb stem	TAM suffix
REALIS-	Verb.Stem	-NON-PAST
		-PAST
		-∅
		-POTENTIAL
IRREALIS-		-NON-PAST^^
		-PAST
		-∅
		-POTENTIAL
DEONTIC-		-NON-PAST
		-∅
		-PAST
		-POTENTIAL
NEGATIVE.NON-PAST-		-NEGATIVE.NON-PAST

Table 2.2 Grammatically acceptable combinations of pronominal prefix and TAM suffix paradigms in negative polarity contexts

Therefore, while a morpheme-based compositional approach might be successfully employed, there are potential difficulties for such approaches in accounting for the unacceptable grammatical prefix + TAM suffix combinations that should be explainable by a productive compositional approach.

Additionally, examining the interfaces between morphological complexity and semantic complexity (where exponents often convey underspecified meanings), rather than assuming that this underspecification and resulting polyfunctionality is due to polysemy (*à la* compositional theories), one can instead propose that this is due to homonymy, due to conventionalised form/meaning pairings. This is in line with other well-established results of research on TAM composite marking examining periphrastic and analytic tenses in Romance and Germanic languages (cf. Molencki 2000; Hogeweg 2009; Anand & Hacquard 2010; Patard 2014; Michaelis 2017; Caudal 2015, 2017; Caudal & Bednall 2017). Of course, this doesn't discount the idea that these conventionalised form/meaning pairings aren't the product of former semantic complexity derived from productive composite meanings. See Chapter 9 for further discussion.

While I adopt a Word-and-Paradigm morphological approach in this thesis, my glossing style reflects more of an Item-and-Arrangement model, which is appropriate given the general structural transparency of the verbal structure. This is done for the ease of readability, giving the reader straightforward access to the morphosyntactic features of the inflected verb form. Obviously, given the underspecification of morphs, some of the glossing labels are somewhat opaque (particularly for the TAM readings, which are expressed through two discontinuous morphs), however despite this, I believe this Item-and-Arrangement style for glossing is the simplest and most appropriate labelling method for interlinearised examples.

2.3 Structure of the verb

The Anindilyakwa verb comprises of the verb stem and up to 11 morphological slots of the verb template (see Table 2.3²¹).

²¹ Slots marked * may be reduplicated; slots marked in parentheses () are not obligatory; portmanteau prefix and TAM suffix slots, which combine to express TAM readings, shaded in grey; verb stem shaded in orange.

-6	-5	-4	(-3*)	(-2)	(-1*)	0*	(+1)	(+2)	+3	(+4)	(+5)
Modality(/polarity)	Subject	Object	QUANTIFIER	BENEFACTIVE	Body part/generic	Stem	CAUSATIVE	REFLEXIVE, RECIPROCAL	Tense/aspect/modality(/polarity)	MUTUAL KNOWLEDGE/DEPENDENT	Case/spatio-temporal/modal clitic

-6	Portmanteau prefix	Involved in the expression of person, number, modality and transitivity, and combines with [+3] slot to express different TAM readings. Additionally involved in (negative) polarity in the case of the two discontinuous exponents involved in the NEGATIVE.NON-PAST (one of which occurs in the portmanteau prefix slot). The portmanteau prefix has been split into three slots of the verbal template given that the prefix is often transparent, with the three constituents (modality+Subject+Object) being able to be identified, however in other cases the three are fused and such transparency is not apparent ²²
-5		
-4		
-3	QUANTIFIER	Stresses the multiplicity of intransitive subjects or transitive objects
-2	BENEFACTIVE	Introduces an object argument to the verb
-1	Body part/generic	Indicates either body parts belonging to a human/higher class animate referent, or acts to classify/delimit the semantics of the verb stem
0	Stem	
+1	CAUSATIVE	Attaches to intransitive verb stems to generate transitive verbs with the meaning ‘to make [X]’

²² Compare, for example, the transparent IRREALIS.3F>VEG prefix *kə+ngə+mə-* (i.e. IRREALIS+3F+VEG) vs. the non-transparent IRREALIS.2>1 prefix *yik-*.

+2	REFLEXIVE/RECIPROCAL	Attaches to transitive verb stems to decrease the verb's valency by one
+3	TAM	Contributes to aspectuo-temporal and modal properties of the verb, in combination with the portmanteau prefix. Additionally contributes to (negative) polarity in the case of the two discontinuous exponents involved in the NEGATIVE.NON-PAST (one of which occurs in the [+3] TAM slot)
+4	MUTUAL KNOWLEDGE/ DEPENDENT	In independent clauses, indicates symmetrical access to information (i.e. mutual knowledge) from the perspective of the speaker; while in dependent clauses, occurs as a relative/subordinate clause marker
+5	Case/ spatio-temporal/ modal clitic	Involved in the expression of semantic roles concerning (generally) spatial meanings (relative clause function), or specifying a temporal, logical or spatial relationship between two clauses (adverbial subordinate clause function)

Table 2.3 Anindilyakwa verbal template (based on van Egmond 2012: 131)

As is apparent in Table 2.3, the verb has a flat structure, where the ordering of affixes is fixed, but arbitrary. The portmanteau prefix (slots [-6] – [-4]), the verb stem (slot [0]) and the TAM suffix (slot [+3]) are the only obligatory slots of the template. Thus, in its simplest form, a verb exists as a verb stem inflected with a portmanteau prefix and a TAM suffix, and at its most complex, may include incorporated nominals as well as a number of other affixes and clitics.

The optional slots of the template include the QUANTIFIER prefix (*-mərnda-*, *-wurra-*, *-lhərrak-*) (§2.3.3), BENEFACTIVE prefix (*-mən-*) (§2.3.3), incorporated nominals, the CAUSATIVE, REFLECTIVE and RECIPROCAL derivational suffixes (§2.3.4.1), the *=ma ~ =mər* clitic (§2.5), and case (§8.1), spatio-temporal (§8.2) and modal clitics (§§10.2-3).

The nominalising prefix *-k-* is used to derive non-finite verbs from a verb root. Deverbalised nouns take nominal rather than verbal prefixation (van Egmond 2012: 133)²³.

²³ Given that the nominalising prefix *-k-* derives nominals (i.e. which necessarily take nominal, rather than verbal inflectional marking), this prefix does not appear in the verbal template displayed in Table 2.3.

The morphological complexity of Anindilyakwa lies not only in the number of different morphological affixes available in the verb template, but also the combinatorics of these to encode different grammatical categories (where a grammatical category will be marked through a combination of at least two slots across the verb template).

2.3.1 *Verb stems*

Verb stems in Anindilyakwa can be simple or complex, as is typical of Gunwinyguan languages (cf. Alpher, Evans & Harvey 2003). Simple stems (e.g. *-lhaka-* ‘go’; *-ma-* ‘get’) are comprised of just the verb root, which are directly marked for inflectional TAM suffixes. Complex stems, while synchronically monomorphemic, consist historically of an uninflecting element followed by a former finite verb root, which remains today in the form of a stem-final submorphemic element (cf. van Egmond 2012, Chapter 5). Thus synchronically, complex verbs are frozen combinations of an uninflecting element plus an inflecting element. For example, *-yeng+bi-* is comprised of the nominal root *yeng-* ‘voice’ and the inflecting element *+bi-* ‘?’ (van Egmond 2012: 132).

I overview the diachronic and synchronic nature of verb stems in this section, given the importance of providing a sound understanding of the composition of the verb stem before examining Aktionsart/event structure properties of verbs in detail in Chapters 4 and 5.

2.3.1.1 *Simple verb stems*

As described above, simple stems are those that consist only of a verb root, onto which TAM inflections are marked directly. Examples of these are *-kwa-* ‘give’ or *-ja-* ‘eat’.

Simple verb stems appear to constitute a continuum, from (what van Egmond (2012: 166) identifies as) fixed stems, through to bound stems:

- (i) fixed stems, being those stems that do not occur in conjunction with incorporated nominals (only six such stems are attested) (compare examples (2.3) and (2.4));
- (ii) free stems, being those stems that can optionally incorporate a nominal (compare examples (2.5) and (2.6));
- (iii) bound stems, being those stems that obligatorily incorporate a nominal and cannot occur on their own (compare examples (2.7) and (2.8)).

- 2.3) *nu-wilyaba n-eni-yuwangkwa nə-lhəke-na erriberribə=wa*
 3M-one 3M-M-old.person REAL.3M-go-PST NEUT.bush=ALL
 ‘An old man went to the bush’
 (Groote Eylandt Linguistics 1993: 182)
- 2.4) **nu-wilyaba n-eni-yuwangkwa ni-lyang-lhəke-na*
 3M-one 3M-M-old.person REAL.3M-head-go-PST
erriberribə=wa
 NEUT.bush=ALL
 ‘An old man went to the bush’
- 2.5) *nəngenə-lyang-ngaja-Ø=ma*
 REAL.1>3M-head-hit-PST=MUT
 ‘I hit him on the head’
- 2.6) *nəngenə-ngaja-Ø=ma enə=lhangu=manja arəngka*
 REAL.1>3M-hit-PST=MUT 3M.PRO=POSS=LOC NEUT.head
 ‘I hit him on the head’
 (Leeding 1989: 243)
- 2.7) *nəngeni-lyang-barra-Ø*
 REAL.1>3M-head-hit-PST
 ‘I hit him on the head’
 (Stokes 1982: 149)
- 2.8) **nəngeni-barra-Ø enə=lhangu=manja arəngka*
 REAL.1>3M-hit-PST 3M.PRO=POSS=LOC NEUT.head
 ‘I hit him on the head’

Examples of these different simple stem types (fixed, free and bound) are demonstrated in Table 2.4. The ‘+’ sign is used to represent bound forms (van Egmond 2012: 167).

Fixed simple stem	Free simple stem	Bound simple stem
-lhəka- ‘go’	-ba- ‘hit, argue’	+aya- ‘stand’

- <i>kwa</i> - ‘give’	- <i>bukwa</i> - ‘blow’	+ <i>baja</i> - ‘hit’
- <i>ma</i> - ‘do, say’	- <i>bərra</i> - ‘shake’	+ <i>barra</i> - ‘split’
- <i>ja</i> - ‘eat’	- <i>warda</i> - ‘hit’	+ <i>bijanga</i> - ‘jump’
- <i>ma</i> - ‘get, take’	- <i>miji</i> - ‘search’	+ <i>lhalhə</i> - ‘be upright’
- <i>jungwə</i> - ‘die’	- <i>lharr</i> - ‘fall’	+ <i>bilya</i> - ‘attach’
	- <i>wurra</i> - ‘throw’	+ <i>abərra</i> - ‘put down’

Table 2.4 Simple verb stems (from van Egmond 2012: 167)

2.3.1.2 *Complex verb stems*

Complex verb stems also constitute a continuum in Anindilyakwa, ranging from fully lexicalised forms (fused uninflecting+inflecting elements, which are historically complex but synchronically frozen monomorphemic stems that have lost any structural and semantic independence) (§2.3.1.2.1), to forms with apparent formal transparency (e.g. stems formed through derivational suffixation (i.e. inchoative, factitive) attached to cranberry morphs) (§2.3.1.2.2), to productive (formed with derivational suffixes, or productive noun incorporation) (§2.3.1.2.2) (van Egmond 2012: 196).

2.3.1.2.1 *Fully lexicalised (historically complex) verb stems*

An areal feature of languages across Northern Australia are complex verbs. Both Non-Pama-Nyungan and Pama-Nyungan languages spread across Northern Australia contain this areal trait, however the kinds of complex predicates demonstrated by these languages constitute a continuum, ranging from clearly phrasal complex verbs (consisting of a coverb + generic verb), to languages where ‘the two components are so tightly fused that they have lost any structural and semantic independence, and may be treated, synchronically, as unanalysable verb roots’ (Schulze-Berndt 2000: 533). It is this latter type that Anindilyakwa demonstrates.

Like other Gunwinyguan languages, Anindilyakwa has verb stems that have their origin in complex verb formations, but which synchronically appear to be single phonological words, with the closed-class inflecting element of the former compounds having lost their independent status. Thus, synchronically, the original inflecting elements are now realised as ‘submorphemic element[s], often treated as conjugation markers or ‘thematic’ markers’

(Schulze-Berndt 2000: 538), and together in combination with the original uninflecting element are functionally equivalent to simple predicates (Schulze-Berndt 2000: 118).

Prepounds (i.e. the uninflecting element of lexicalised, historically complex verb stems)

The uninflecting element of (historically) complex stems (often referred to as ‘prepounds’ in the Gunwinyguan literature) are the initial uninflecting portion of historical noun+verb/verb+verb/cranberry morph+verb compounds (van Egmond 2012: 181). The majority of these uninflecting elements do not occur as independent forms, although they can occur recurrently in a number of verb stems (van Egmond 2012: 181).

Thus, prepounds can constitute nominal, verb or cranberry morph roots, or sometimes unanalysable forms that recur only in this role of uninflecting elements of historically complex verb stems. These elements range from i) occurring in a number of stem forms that share semantic characteristics, to ii) occurring in just one verb form, but that demonstrate clear etymologies in another language, to iii) completely unanalysable forms (van Egmond 2012: 181). As mentioned above, some complex verb stems are frozen noun+verb compounds. These occur in Anindilyakwa alongside productive noun+verb compounds that are formed through noun incorporation. See van Egmond (2012, Chapter 5) and Bednall (forthcoming-a) for more detailed discussions of distinguishing frozen complex verb stems from productive incorporated body part forms.

Thematics (i.e. the inflecting element of lexicalised, historically complex verb stems)

The inflecting element of (historically) complex stems (often referred to as ‘thematics’ in the Gunwinyguan literature) are the historically final, inflecting portion of complex verb compounds. Some of these elements exist as independent verbs (e.g. *-ma-* ‘get, take’, *-kwa-* ‘give’), but are bleached of their meaning when occurring in a complex stem form. Others occur only in frozen compound verb stems (van Egmond 2012: 181).

An example of the former, where the historically complex verb structure comprises of a preposition + thematic (i.e. an uninflecting element + inflecting element) that exists as an independent verb, can be demonstrated with the verb *-ma-* ‘get, take’. This inflecting element recurs as a final submorphemic part in a number of verb stems that fall into the same conjugation class as the independent *-ma-* verb. All these verb stems containing *+ma-* are

semantically linked, expressing some notion of motion (van Egmond 2012: 180). Table 2.5 displays a sample of verb stems containing *+ma-*.

<i>-yirr+ma-</i> ‘swim’	<i>-weng+ma-</i> ‘come towards’
<i>-warə+ma-</i> ‘rise, fly away’	<i>-lharr+ma-</i> ‘chase’
<i>-lyeng+ma-</i> ‘lead’	<i>-yerrerrə-ma-</i> ‘shake’

Table 2.5 Verb stems containing *+ma-* inflecting element (van Egmond 2012: 180)

On the other hand, some thematics occur only in frozen compound verb stems, and not as independent verbs. An example of this is the inflecting element *+wa-*, which has no independent form, and occurs only in a number of complex stems that fall into the same conjugation class (class 1B) (e.g. *-yu+wa-* ‘follow’, *-ngadhu+wa-* ‘cry for’, *-yarru+wa-* ‘go past’, *-barru+wa-* ‘crawl’, *-marra+wa-* ‘wander’, *-kerru+wa-* ‘try (but fail)’, *-jiju+wa-* ‘chop out, cut’) (van Egmond 2012: 208).

van Egmond (2012: 193) identifies 23 thematics of complex verbs of Anindilyakwa, which falls between the expected numbers recorded in Northern Australian languages (between 16 in Ngalakgan (Merlan 1983) to 38 in Marra (Heath 1981) (van Egmond 2012: 193).

Further detailed examination of the semantics of the 23 thematics of complex verb stems, as well the semantics of preponds, is needed in order to better understand the formation and semantic content expressed by historically complex verb stems in Anindilyakwa, especially in regard to the Aktionsart/event structure properties of different complex verb stems. Aktionsart/event structure properties of the verb are discussed more generally in Chapter 4.

2.3.1.2.2 *Productive and seemingly transparent complex verb stems*

While the preponds + thematics are synchronically fused and no longer productive in verb stem formations, derivational suffixes on the other hand, are productive means of stem formation. Similar to the thematics of the complex verb stem, they determine the conjugation class of the verb stem, and they are most likely derived from former verb roots. However, in contrast to thematics of the complex verb stem they are productive and structurally transparent (van Egmond 2012: 181).

There are six productive derivational suffixes in Anindilyakwa (two suffixes involved in verb formation of a nominal stem (inchoative *-dhə-* and factitive *-ka-* ~ *-kwa-*), and three suffixes that are added to verbs and involve change of valency of the verb (causative *-ji-*, reflexive *-jungwə-* and reciprocal *-yi-*). In addition, verbs from English and Kriol that are borrowed into Anindilyakwa require the derivational suffix *-dha-* (van Egmond 2012: 178).

Denominalising suffixes

The inchoative *-dhə-* and factitive *-ka-* ~ *-kwa-* are two productive suffixes that are involved in the formation of verb stems. The inchoative *-dhə-* is added to nouns or adjectives in order to form intransitive verb stems, expressing both stage-level states ('to be [X]'), and change-of-states ('to become [X]'). The factitive *-ka-* ~ *-kwa-* is added to nouns or adjectives in order to form transitive verb stems, expressing change-of-states with the meaning 'to make something [X]' (van Egmond 2012: 169). These two derivational suffixes are demonstrated in (2.9).

- 2.9) *kembirra* *Jesus nen-eningaba-ka-Ø=ma* *wurr-akəna*
 then Jesus REAL.3M-good-FACT-PST=MUT 3A-that
enəng-erribirra=lhangwa *angbilyuwa* *akwa*
 NEUT.M.ALP-anyhow=ABL NEUT.sickness and
na-mərndak-eningaba-dhə-nə=ma *arakba* *wurr-akəna=dha*
 REAL.NEUT-many-good-INCH-PST=MUT COMPL.ACT 3A-that=TRM
 'Jesus healed every kind of sickness and the people became better' [source translation]
 (Bible Society in Australia 1992: 586)

The inchoative/factitive derivational suffixes can attach to both free nominals, which are fully productive combinations of the nominal + inchoative/factitive suffix, but in addition there are many examples of cranberry morphs that take an inchoative/factitive verbalising suffix. It is these examples that were described above as seemingly transparent complex verb stems. Examples of nominals that take inchoative/factitive derivational suffixation, as well as transparent cranberry morph + inchoative/factitive suffix combinations are displayed in Table 2.6.

Nominal	Inchoative stem	Factitive stem
<i>-wurrariya</i> ‘bad’	<i>-wurrariya-dhə-</i> ‘be/become bad’	<i>-wurrariya-ka-</i> ‘make bad, spoil’
<i>-enəngaba</i> ‘good’	<i>-enəngaba-dhə-</i> ‘be/become good’	<i>-enəngaba-ka-</i> ‘make good’
<i>-eniba</i> ‘alive’	<i>-enibə-dhə-</i> ‘become alive’	<i>-enibə-ka-</i> ‘make alive, save’
<i>wilyarra</i> ‘middle’	<i>-wilyarra-dhə-</i> ‘become middle-aged’	<i>-wilyarra-ka-</i> ‘put in the middle’
<i>ekalhara</i> ‘burnt off bush’	<i>-ikalharə-dhə-</i> ‘be burning (of bushfire)’	<i>‘ikalharu-kwa-</i> ‘burn off bush’
?	<i>-dha+dhə-</i> ‘burn, be cooked’	<i>-dha+ka-</i> ‘burn, cook’
?	<i>-mərə+dhə-</i> ‘be loaded’	<i>-dhərr-mərə+ka-</i> ‘prevent, stop’
?	<i>-jerri+dhə-</i> ‘be/become finished’	<i>-jerru+kwa-</i> ‘finish, waste’
?	<i>-lhawurra+dhə-</i> ‘return’	<i>-lhawurra+ka-</i> ‘bring back’

Table 2.6 Nominals with inchoative/factitive verbalising suffixes (from van Egmond 2012: 170)

The role of the inchoative/factitive suffixes in the understanding of word meaning, particularly in relation to Aktionsart/event structure is explored in further detail in Chapter 5.

Relation-changing suffixes

Relation-changing suffixes (causative *-ji-*, reflexive *-jungwə-* and reciprocal *-yi-*) are those derivational suffixes that attach to verbs in order to change the valency of the verb. These suffixes occur directly after the verb stem and before the TAM suffix slot of the verb template (see §2.3.4.1).

The causative *-ji-* generally attaches to intransitive verb stems in order to productively generate transitive verbs with the meaning ‘to make [X]’ (as in (2.10)). The causative is generally a productive suffix, attaching to intransitive verb stems, however there are some recorded instances of the causative attaching to a transitive verb stem, or to a cranberry morph, where the preceding element is unanalysable (van Egmond 2012: 173).

The standard order of slots in portmanteau prefixes is for the subject prefix to precede the object one, however the order can be reversed according to person, number and animacy values, with the ordering as follows: 1, 12, 2 > human 3a > human 3 > non-human (van Egmond 2012: 134). See van Egmond (2012, Chapter 4) for more details of number and animacy ordering of portmanteau prefixes.

Like many non-Pama-Nyungan languages (cf. Verstraete 2005), portmanteau prefixes combine with TAM suffixes in order to mark different aspectuo-temporal and modal meanings (see Chapters 6 and 9 for further information).

2.3.2.1 Intransitive paradigms

Intransitive prefixes are fairly transparent, made up of person, number and gender morphs, although the IRREALIS series is less transparent in its composition than the REALIS and DEONTIC series (van Egmond 2012: 160). Intransitive portmanteau prefixes are composed of identifiable person-number-gender morphs, in that order (van Egmond 2012: 139).

The intransitive portmanteau prefix series is presented in Table 2.7 (adjusted from Leeding 1989; Waddy n.d.; van Egmond 2012), encoding 24 different person and number categories, with some neutralisations (van Egmond 2012: 135).

	REALIS	IRREALIS	DEONTIC
1	<i>(nə)ng-</i>	<i>k-</i>	<i>(nə)ng-</i>
1A	<i>yirr-</i>	<i>yik-</i>	<i>yirr-</i>
1F.DU	<i>yirrəng-</i>	<i>yikəng-</i>	<i>yirrəng-</i>
1M.DU	<i>yin-</i>	<i>yikən-</i>	<i>yin-</i>
1TRI	<i>yirrəbək-</i>	<i>yikəbək-</i>	<i>yirrəbək-</i>
12	<i>y-</i>	<i>yak-</i>	<i>y-</i>
12A	<i>ngarr-</i>	<i>ak-</i>	<i>ngarr-</i>
12TRI	<i>ngarrəbək-</i>	<i>akəbək-</i>	<i>ngarrəbək-</i>
2	<i>nəngk-</i>	<i>k-</i>	\emptyset - (~ <i>w-</i>)
2A	<i>kərr-</i>	<i>yik-</i>	<i>w(urr)-</i>
2F.DU	<i>kərrəng-</i>	<i>yikəng-</i>	<i>wu(rrə)ng-</i>
2M.DU	<i>kən-</i>	<i>yikən-</i>	<i>wun-</i>
2TRI	<i>kərrəbək-</i>	<i>yikəbək-</i>	<i>wu(rrə)bək-</i>

3M/ MASC	<i>n-</i>	<i>kən- ~ ken-</i>	<i>en-</i>
3F/ FEM	<i>yɪŋg-</i>	<i>kəŋg-</i>	<i>ang-</i>
3A/ COLL	<i>na- ~ nuw-</i>	<i>ka- ~ kuw-</i>	<i>ab(ərr)-</i>
3F.DU	<i>narrəŋg-</i>	<i>karrəŋg-</i>	<i>abərrəŋg-</i>
3M.DU	<i>nen-</i>	<i>ken-</i>	<i>abə (r)n-</i>
3TRI	<i>na(rrə)bək-</i>	<i>ka(rrə)bək-</i>	<i>a(bərrə)bək-</i>
VEG	<i>nəm-</i>	<i>kəm-</i>	<i>am-</i>
NEUT	<i>na- / C ~ nuw- / V</i>	<i>ka- / C ~ kuw- / V</i>	<i>ak-</i>

Table 2.7 Intransitive verb portmanteau prefixes (adjusted from Leeding 1989; Waddy n.d.; van Egmond 2012: 135)

REALIS and IRREALIS

As identified above, the REALIS and to some extent the IRREALIS series of portmanteau prefixes are often transparent, involving the following formal constituents:

Modality:	REALIS \emptyset -, IRREALIS <i>k</i> -, DEONTIC <i>w</i> -
Person:	REALIS: 1 st exclusive (<i>nə</i>) <i>ng</i> - (minimal), <i>y</i> - (non-minimal) 1 st inclusive <i>y</i> - (minimal), <i>nga</i> - (non-minimal) 2 nd <i>nəŋgk</i> - (minimal), <i>k</i> - (non-minimal) 3 rd \emptyset - (minimal), <i>na</i> - (non-minimal) IRREALIS: opaque (if transparent then similar to realis forms)
Number:	Minimal \emptyset -, augmented <i>rr</i> -, dual <i>ng</i> -, trial <i>bək</i> -
Gender:	Feminine <i>ng</i> -, masculine <i>n</i> -

Table 2.8 Composition of verb portmanteau prefixes (van Egmond 2012: 136)

As demonstrated in Table 2.7, while the majority of these forms follow the transparent constituency overviewed in Table 2.8, there are a small number of forms that can't obviously be broken down into separate components, such as the 1 and 2 IRREALIS. There is also some variation in the ordering of the formal constituents, for example, the *k*- in the IRREALIS paradigm occurs initially in third person IRREALIS prefixes, but between the person and number segments for first and second IRREALIS prefixes.

DEONTIC

First-person (hortative)

The intransitive DEONTIC series, encoding first-person subjects (i.e. ‘true’ hortatives), are formally identical to transitive inverse order subjects (van Egmond 2012: 138). However, one difference that formally distinguishes hortative portmanteau prefixes from inverse order subject morphs is that the dual and trial forms for human referents can be built for the hortative prefixes, whereas inverse order subjects are neutralised for number (van Egmond 2012: 139).

Second-person (imperative)

The intransitive DEONTIC series, encoding second-person subjects (i.e. imperatives), are formally similar to the nominal prefix *wurr-* ‘3A, COLL’, with dual forms built from the *wurr-* prefix (with the addition of two gender prefixes and trial forms constructed with the trial number marker *-bək-*) (van Egmond 2012: 138). However, imperatives often take a shortened prefix of *w-*, and the second person minimal prefix form is generally a zero allomorph (see Table 2.5).

Third-person (jussive)

The intransitive DEONTIC series, encoding third-person subjects (i.e. jussives), are syncretic with the REALIS intransitive series.

2.3.2.2 Transitive paradigms

Transitive portmanteau prefixes are often transparent, composed of corresponding intransitive prefixes, with the order of the transitive subject and object prefixes determined by a person-number-animacy hierarchy, where the higher-ranking participant precedes the lower-ranking one (van Egmond 2012: 160). However, there are additionally transitive prefix forms that show neutralisations, syncretisms and irregular combinations (such as equipollent prefixes in which the subject and object rank equally, and take irregular forms) (van Egmond 2012: 160).

REALIS

REALIS transitive portmanteau prefixes are often fairly transparent, with first order forms (those ranking highest in the person-number-animacy hierarchy) being formally similar to each other, be they the subject or object, and also being similar in form to the intransitive subject prefixes (van Egmond 2012: 140). Table 2.9 displays intransitive portmanteau prefixes, in comparison to transitive first and second order subject and object morphs.

REALIS	Intr. subj	Trans. subj		Object	
		1 st	2 nd	1 st	2 nd
1	<i>(nə)ng-</i>	<i>(nə)ng-</i>		<i>ng-</i>	
1A	<i>yirr-</i>	<i>yirr-</i>		<i>yirr-</i>	
12	<i>y-</i>	<i>y-</i>		<i>yarr-</i>	
12A	<i>ngarr-</i>	<i>ngarr-</i>		<i>ngarr-</i>	
2	<i>nəngk-</i>	<i>nəngk-</i>		<i>ng-</i>	
2A	<i>kərr-</i>	<i>kərr-</i>		<i>kərr-</i>	
3F, FEM	<i>ying-</i>	<i>ying-</i>	<i>ang-</i>	<i>ying-</i>	<i>nga-</i>
3M, MASC	<i>n-</i>	<i>n-</i>	<i>en-</i>	<i>nen-</i>	<i>n- ~ en-</i>
3A, COLL	<i>na-</i>	<i>narr-</i>	<i>ab-</i>	<i>narr-</i>	<i>(a)rra-</i>
VEG	<i>nəm-</i>		<i>am-</i>		<i>ma-</i>
NEUT	<i>na-</i>		<i>ak-</i>		<i>Ø-</i>

Table 2.9 REALIS transitive portmanteau prefix morphs (based on van Egmond 2012: 140)

Thus, the first order subject morphs and second order object morphs are taken when the subject outranks the object on the person-number-animacy hierarchy, and the first order object morphs and second order subject morphs are taken when the object outranks the subject on the person-number-animacy hierarchy. The empty cells represent categories that never appear in that order (i.e. first and second-person categories for second order, and VEG and NEUT classes for first order). This combination of subject+object morph is how transparent transitive prefixes are derived. However, for those categories in which the subject and object are in the same hierarchical class (e.g. first and second-person forms), equipollent prefixes are taken (van Egmond 2012: 140). Out of a possible 207 REALIS prefix forms, about three quarters (152) are

clearly transparent. For a complete REALIS transitive portmanteau prefix paradigm, with both transparent and equipollent forms, see Appendix D.

IRREALIS

First order subject and object forms for the IRREALIS transitive portmanteau prefix series are all formally identical (aside from the 3A/COLL, and second order subjects and objects are identical to those in the REALIS series (van Egmond 2012: 143). Table 2.10 displays IRREALIS intransitive portmanteau prefixes, in comparison to transitive first and second order subject and object morphs. The table is to be read in the same way as Table 2.9.

IRREALIS	Intr. subj	Trans. subj		Object	
		1 st	2 nd	1 st	2 nd
1	<i>k-</i>	<i>k-</i>		<i>k-</i>	
1A	<i>yik-</i>	<i>yik-</i>		<i>yik-</i>	
12	<i>yak-</i>	<i>yak-</i>		<i>yak-</i>	
12A	<i>ak-</i>	<i>ak-</i>		<i>ak-</i>	
2	<i>k-</i>	<i>k-</i>		<i>k-</i>	
2A	<i>yik-</i>	<i>yik-</i>		<i>yik-</i>	
3F, FEM	<i>kəŋg-</i>	<i>kəŋg-</i>	<i>əŋg-</i>	<i>kəŋg-</i>	<i>ŋgə-</i>
3M, MASC	<i>kən-</i>	<i>kən-</i>	<i>ən-</i>	<i>kən-</i>	<i>n- ~ ən-</i>
3A, COLL	<i>ka-</i>	<i>karr-</i>	<i>ab-</i>	<i>karr-</i>	<i>a-</i>
VEG	<i>kəm-</i>		<i>əm-</i>		<i>mə-</i>
NEUT	<i>ka-</i>		<i>ak-</i>		<i>∅-</i>

Table 2.10 IRREALIS transitive portmanteau prefix morphs (based on van Egmond 2012: 143)

As with the REALIS transitive series, most IRREALIS transitive prefixes are composed of the subject and object morphs of Table 2.10, however the IRREALIS series displays both more syncretism and more regularity than the REALIS series (syncretism between 1 and 2 subject forms, 1A and 2A subject forms, 1 and 2 object forms and 1A and 2A object forms) (van Egmond 2012: 143). For the complete IRREALIS transitive portmanteau paradigm, see see Appendix D.

DEONTIC

First-person subject DEONTIC series prefixes are formally identical to the REALIS transitive series, aside from second-person object forms, which take a prefix syncretic to the IRREALIS transitive series.

Second-person subject DEONTIC series prefixes are mainly transparent, composed of a transitive subject form identical to the corresponding intransitive form, and an object form identical to REALIS /IRREALIS second order forms (van Egmond 2012: 145). Second person minimal subjects are generally \emptyset -, and second-person subject DEONTICS with first-person objects take REALIS prefixation (Leeding 1989, van Egmond 2012).

Third-person subject DEONTIC series prefixes are also mainly transparent, composed of a subject form identical to the corresponding intransitive form, and an object form identical to REALIS /IRREALIS second order forms. Third-person subject DEONTICS with first and second-person objects take prefixes syncretic to the IRREALIS transitive series. For the complete transitive DEONTIC prefix paradigm, see Appendix D.

2.3.3 Other prefixal elements

As displayed in Table 2.3, other prefixal slots in the verbal template include the quantifier (-*murnda*-, -*wurra*-, -*lhərrak*-) [-3], the benefactive (-*mən*-) [-2] and incorporated nominals [-1].

The quantifier is an optional prefix that functions to either stress the multiplicity of intransitive subjects or transitive objects (-*mərndaka*- and -*wurraka*-) or emphasise the ‘dual’ number of the subject (-*lhərrak*-) (Leeding 1989, van Egmond 2012).

- 2.14) *yadhəkəna* *kembirra* *na-mərndakə-lhəke-na* *arakba*
from.there then REAL.3A-**many**-go-PST COMPL.ACT
wurr-akəna *Aburema-mərriya* *nuw-angkarrə-nə=mərru=wa arrərri*
3A-that Abram-the.rest REAL.3A-run-PST=DEP=ALL NEUT.wind
dhalhadha
FEM.south
‘From there Abram and all his people went south’
(Bible Society in Australia 1992: 82)

The benefactive is an applicative, introduces an object argument to the verb (compare, for example, 2.15 (without the BENEFACTIVE) to 2.16 (with the BENEFACTIVE)). It can behave as a beneficiary or a maleficiary (i.e. introduces an argument that can either positively or negatively affect the action expressed by the verb) (van Egmond 2012: 158).

- 2.15) *Christ ni-jungə-nə=ma* *kajungwa*
 Christ REAL.3M-die-PST=MUT so.that
ngarrə-werri-ngekburni=yedha
 12A-chest-good=PURP
 ‘Christ died so that he could make us perfect’ [source translation]
 (Bible Society in Australia 1992: 935)

- 2.16) *en-eja* *Christ ngarrenə-mənə-jungwə-nə=ma* *n-akəna*
 3M-CofR Christ REAL.3M>12A-BENE-die-PST=MUT 3M-that
 ‘Christ died for us’ [source translation]
 (Bible Society in Australia 1992: 898)

Incorporated nominals occur in slot [-1] of the verb template, directly preceding the verb stem (2.17). Incorporated nominals can either express body parts belonging to a human or higher class animate referent, or act to classify/delimit the semantics of the verb stem. Anindilyakwa allows incorporation into both verbs and adjectives (van Egmond 2012: 237). See van Egmond (2012, Chapter 7) for a comprehensive discussion of noun incorporation in Anindilyakwa.

- 2.17) *na-ngwurrk-balhi-nə=ma* *angwurra* *yukudhukudha*
 REAL.3A-**mouth**-spread-PST=MUT INTS NEUT.chest
abər̄ra=lhangwa
 3A.PRO=POSS
 ‘They were filled with joy’ [source translation]
 (Bible Society in Australia 1992: 893)

2.3.4 Suffixation

2.3.4.1 Derivational suffixes

Verbal derivational suffixes occur in the verbal template in slots [+1] (causative) and [+2] (reflexive and reciprocal), directly before the TAM inflections of slot [+3]. These derivational suffixes are relation-changing devices, that change the valency of the verb. See §2.3.1.2.2 for further information.

2.3.4.2 Inflectional suffixes

The obligatory TAM suffix slot ([+3] of the verb template) combines with the portmanteau prefix paradigm, in order to express temporal, aspectual and modal readings. The inflectional TAM suffix paradigm comprises two phonologically overt markers that (in combination with portmanteau prefixes) mark temporal distinctions (the PAST and NON-PAST); a phonologically overt marker that in combination with portmanteau prefixes expresses modal readings (the POTENTIAL); and the absence of a phonologically overt marker (i.e. a phonologically \emptyset slot of the [+3] paradigm), which is involved (in combination with the portmanteau prefix paradigm) in different aspectuo-temporal readings (see §6.4)). These are displayed in Table 2.11.

<i>Conjugation class</i> <i>TAM suffix</i>	1	2	3	4	5	6
NON-PAST	<i>-na/-rna</i>	<i>-na</i>	<i>-ja</i>	<i>-na</i>	<i>-na</i>	<i>stem alternation ~ -na</i>
PAST	<i>-nə/-rnə</i>	<i>-ngə ~ -nga</i>	<i>-nə ~ -rnə</i>	\emptyset	<i>-wa</i>	<i>stem alternation ~ -nə</i>
\emptyset (USP)	\emptyset					
POTENTIAL	<i>-ya</i>					

Table 2.11 TAM suffixes, organised by conjugation class

As can be observed in Table 2.11, there are six main inflectional conjugation classes, that can be distinguished based on the forms of the NON-PAST and PAST suffixes. Most conjugation classes can be further subdivided according to the quality of the stem-final vowel.

There is no semantic or valency basis that underlies the majority of the verb classes (van Egmond 2012: 201), except in class 6 (comprised mainly of stance verbs) and class 5 (whose sole member is the causative suffix *-ji*). The majority of the verbs identified in Leeding's (1989) corpus fall into classes 1 (61%) and 2 (31%), with classes 3, 4, 5 and 6 making up the remaining 8%.

Verb class membership is determined largely by the final syllable of the stem, either the derivational suffix or the stem-final submorphemic element (van Egmond 2012: 162).

2.3.4.2.1 *Verb conjugation classes*

I largely follow van Egmond (2012)'s analysis of the verbal conjugation classes, which itself builds upon analyses of Heath (n.d.), Leeding (1989) and Stokes & Waddy (n.d.). The reader is directed to van Egmond (2012: 205-215) for elaboration on this topic, and to Appendix E for tables displaying the different conjugation subclasses and their formal TAM suffix paradigms (following my analysis of the TAM categories)). Before leaving this topic, however, a couple of clarificatory points are in order regarding verb conjugation classes that are noticeably different under my analysis, or which behave substantially different from other conjugation classes. Particularly, in the following section I briefly discuss class 2 verbs, whose PAST marking forms merit a brief discussion (in light of my re-analysis of the TAM categories (see Chapter 6)), and class 6 verbs, which are a special verb class comprised primarily of stance verbs, and which inflect quite differently to the other verb classes.

Class 2 verbs: PAST TAM marker

While the form of the PAST morph in classes 1 and 3 is *-nə/-rnə*, in class 4 is *-Ø* and class 5 is *-wa*, in class 2 it takes the of one of two allomorphs: *-ngə* and *-nga*. Examples (2.18) and (2.19) provide a demonstration of these class 2 *-nga* and *-ngə* markers.

- 2.18) *akwalha* *narri-yena-nga=ma* *alyarrngandhə=manja*
 NEUT.some REAL.3A>NEUT-roast-PST=MUT NEUT.hot=LOC
 amarnənə=manja
 NEUT.coals=LOC
 ‘They cooked some in the hot coals’ [source translation]
 (JL, A3369b Side1, a4.4 Malamukwa-langwa ‘About canoe accident’)

- 2.19) *ngarrenə-mən-abərda-nga=ma!*
 REAL.3M>12-BENE-roast-PST=MUT
 ‘He roasted our [children]!’ [source translation]
 (GL, A3369a Side1, a3.6 Nubardubarda-langwa)

van Egmond (2012) and Heath (n.d.) suggest an aspectual distinction between these two forms, however I find no supporting evidence for this. The *-nga ~ -ngə* PAST morph appears to be in free variation, not determined by stress placement, and with no semantic distinction encoded. It will be left to future research to examine this variation in more detail.

Class 6 verbs: Stem alternations and *-nga* Cofs augment

Class 6 verbs behave rather differently from other verb classes, in a number of ways. This verb class, which consists mainly of stance verbs, do not take the regular inflectional TAM marking of other verb classes, instead making widespread use of verb stem alternations to differentiate between TAM distinctions (in combination with portmanteau prefixes). A second distinguishing feature of class 6 verbs is the *-nga* augment, involved in change-of-state readings. These properties of class 6 verbs are displayed below in Table 2.12, which demonstrates the different inflections, stem alternations and augments involved in the three subclasses of class 6 verbs²⁴.

	Augments + suffixes	6Ai e.g.	6Aii	6B	6C
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²⁴ This analysis differs to that of van Egmond (2012), who proposed that class 6 verbs take a *-Ø* marker for all tense/aspect categories, as displayed in the table below (van Egmond 2012: 213) (taking the (class 6C) verb *-arjiya-* ‘stand’ as an example).

	Augments + suffixes	e.g. <i>-arjiya-</i> ‘stand’
NP1	<i>-nga-Ø</i>	<i>-arjiyi-nga-Ø</i>
NP2	<i>-Ø ~ -na</i>	<i>-arjiya-Ø ~ -arji:-na</i>
NP3	<i>-ma ~ -ngəma</i>	<i>-arjiyə-ma ~ -arji-ngəma</i>
P1	<i>-nga-Ø</i>	<i>-arjiyi-nga-Ø</i>
P2	<i>-Ø</i>	<i>-arjeey-Ø</i>

I suggest that identical *-Ø* inflections marking different TAM categories is less preferable than an analysis distinguishing TAM categories as being expressed through the combination of portmanteau prefix paradigms and alternations that occur in the verb stems of these verbs (i.e. final vowel alternations of the stems).

		-mungskulh- ‘sleep’	e.g. -ambily- ‘stay’	e.g. -ambarr- ‘sit’	e.g. -arjiya- ‘stand’
NPST	final vowel alternation ~ -na ~ -ya	<i>-mungskulha ~ -mungskulhi-ya</i>	<i>-ambilya</i>	<i>-ambarri-ya ~ - ambarrə-na</i>	<i>-arjiya</i>
PST	final vowel alternation ~ -nə	<i>-mungskulhə</i>	<i>-ambilyə</i>	<i>-ambarrə-nə</i>	<i>-arjeey</i>
Bare verb stem	<i>-nga-Ø</i>	<i>-mungskulhə- nga-Ø</i>	-	<i>-ambarrə-nga-Ø ~ -ambarra-Ø</i>	<i>-arji-nga-Ø</i>

Table 2.12 [+3] component of the verbal template for Class 6 verbs

Some subclasses involve inflectional TAM suffixes, similar to those displayed for other verb classes (e.g. *-na* NPST, *-nə* PST for class 6B verbs), and additionally subclasses 6Ai and 6B can take the *-ya* NPST marker²⁵. However, final vowel stem alternation is most widespread for class 6 verbs, occurring with all subclasses. This stem alternation between PAST and NON-PAST is demonstrated in the examples below, with the alternation between *-mungskulha-* ‘sleep.NPST’ vs. *-mungskulhə-* ‘sleep.PST’ in examples (2.20) and (2.21); and *-ambilya-* ‘stay.NPST’ vs. *-ambilyə-* ‘stay.PST’ in examples (2.22) – (2.24).

- 2.20) *nə-mungskulha=ma* *marrənga*
REAL.3M-**sleep.NPST**=MUT VEG.sleep
‘He is sleeping’ [source translation]
(anin2_em_au_002) (van Egmond 2012: 152)

- 2.21) *wurr-akəna* *wurrangariya* *na-mungskulhə=ma* *marrənga*
COLL-that COLL.baby REAL.3M-**sleep.PST**=MUT VEG.sleep
alyarrungwalya

²⁵ This is distinct from the *-ya* POTENTIAL marker, which doesn’t occur with class 6 verbs, but does with all other verb classes, and is involved in modal readings (in combination with only the DEONTIC and IRREALIS portmanteau prefixes. The *-ya* NON-PAST marker of class 6 verbs, on the other hand, is able to occur in combination with REALIS portmanteau prefixes.

NEUT.night

‘The baby was sleeping at night’ [speaker translation]

(JL, JRB1-022-01, 00.05.35)

- 2.22) *y-aka* *yinəngəmbalba* *n-ambilya=ma*
MASC-this MASC.bat REAL.MASC-**stay**.NPST=MUT
warnə-mamalya=lhangwa=manja *alhəkəra*
3A.M-people=POSS=LOC NEUT.house
‘Bats live under people’s houses’ [source translation]
(Groote Eylandt Linguistics 1993: 91)

- 2.23) *biya* *n-eniyuwangku=lhangu=manja* *alhəkəra*
then 3M-old.man=POSS=LOC NEUT.house
yirr-ambilyə=ma
REAL.1A-**stay**.PST=MUT
‘Then we were staying at the old man’s house’ [source translation]
(Leeding 1989: 309)

- 2.24) *kaba* *arakba* *nuw-ambilya*
quiet COMPL.ACT REAL.3A-**stay**.PST
‘They were quiet now’ [source translation]
(NW, A3368a Side1, a1.1 Chasm Island, 00.02.13)

An interesting feature of class 6 verbs is the augment, *-nga*²⁶ (Cofs), which is involved in change-of-state readings. It is only this class of verbs that can take this augmented stem form. I argue that this *-nga* segment is not part of the [+3] TAM slot of the verbal template, but rather an augment of the verb stem²⁷. It does not encode temporal properties, but rather is involved in inchoative, change-of-state readings. This is demonstrated in a non-past context in example (2.25), where the *-nga* augment provides the reading of ‘becoming seated’, while example (2.26) expresses the past change-of-state from standing to squatting down.

²⁶ This *-nga* augment is distinct from the inflectional *-nga* (PAST) marker of class 2 verbs.

²⁷ The suggestion that *-nga* is an augment rather than an inflectional suffix was previously made to van Egmond by Eva Schultze-Berndt (van Egmond 2012: 212).

- 2.25) *ng-ambarrə-nga-Ø?*
 DEON.1-sit-Cofs-USP
 ‘Asking permission to sit’ [speaker explanation of the use of this utterance]
 [i.e. ‘May I sit down?’ (become seated)] [ST, fieldnotes 14/07/2016]
 (ST, JRB1-040-01, 01.12.26)
- 2.26) *nəngə-ruku-lhalhə-nga-Ø=ma*
 REAL.1-body-be.upright-Cofs-USP=MUT
 ‘I squatted down’ [source translation]
 (Leeding 1989: 434)

The *-nga* augment is unproductive, occurring only with seven of the ten (mainly stance) verbs of the verb class 6²⁸. It occurs in a frozen form with the phonologically Ø TAM marker (i.e. it cannot occur with the formally overt PAST/NON-PAST inflectional markers).

-ng(a) augmented forms are a feature across the Gunwinyguan language family, occurring principally with stance verbs in these languages. They can be found occurring, for example, in Wubuy, as well as more marginally in languages such as Ngandi and Bininj Kunwok (Alpher, Evans & Harvey 2003: 313).

If we consider Wubuy as an example, we find this *-nga* augment occurring with the class of (primarily) stance verbs corresponding to class 6 verbs of Anindilyakwa. A comparison of the suffixal inflectional morphology of these verbs in Anindilyakwa and Wubuy, taking the cognate form *mungkulha* ‘sleep’ as an example, is displayed in Table 2.13. As can be seen in this table, the *-nga* Cofs augment of Wubuy also occurs in a frozen form, occurring only with the NP1/P1 inflectional suffixes (which I propose are historically related to the Ø TAM marker of Anindilyakwa, see §6.6).

	Anindilyakwa	Wubuy
NPST (Anin)/ NP2 (Wubuy)	<i>-mungkulha ~ -mungkulhi-ya</i>	<i>-mungkulhaa</i>
PST (Anin)/ P2 (Wubuy)	<i>-mungkulhə</i>	<i>-mungkulhi-Ø</i>
Bare verb stem (Anin)/ NP1 (Wubuy)	<i>-mungkulhə-nga-Ø</i>	<i>-mungkulha-nga-ng</i>

²⁸ The *-nga* augment can occur with the following verbs: *-mungkulh-* ‘sleep’, *mərrkulha-* ‘lie down’, *-abulhuwenhe-* ‘bend’ (class 6Ai), *-ambarr-* ‘sit’, *-lha(lhə)-* ‘be upright’ (class 6B), *-arjiya-* ‘stand’, *-andhiya-* ‘look around’ (class 6C).

Bare verb stem (Anin)/ P1 (Wubuy)		<i>-mungskulha-nga-ny</i>
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Table 2.13 Comparison of the verb ‘sleep’ in Anindilyakwa and Wubuy

van Egmond (2012: 365) suggests that in Anindilyakwa the change-of-state meaning associated with *-nga* augmented stems is not attributable to the *-nga* augment itself, but rather by virtue of the inflectional TAM suffixes (i.e. the NP1/P1 suffixes (under van Egmond’s analysis, = \emptyset TAM marker under my analysis)). She states that ‘the NP1 and P1 suffixes encode a change of state whereas the NP2 and P2 do not have such readings’ (van Egmond 2012: 266). I disagree, and suggest the *-nga* suffix augment encodes the change-of-state reading, and that this augment has become frozen, occurring only with the \emptyset TAM marker. If the *-nga* augment didn’t enforce a change-of-state reading, and it was the \emptyset TAM marker encoding the change-of-state reading, as is the suggestion of van Egmond (2012), we would expect these forms to pattern like other \emptyset TAM marked stems (i.e. *-nga* augmented stems inflected with the portmanteau prefix + \emptyset TAM suffix should be able to convey past temporal readings with dynamic events, and continuous present readings stative situations (see §6.5.3)). However, this is not the case, with only change-of-state readings expressed by *-nga* augmented stems, as demonstrated in examples (2.27) – (2.29).

- 2.27) *n-aka* *nenangkwarba* *n-abulhuwenhe-nga- \emptyset =ma*
 3M-this 3M.man REAL.3M-bend-Cofs-USP=MUT
 ‘The man bent over’ [author translation]
 (ST, fieldnotes, 14/07/2016)

- 2.28) *nu-mungskulhi-nga- \emptyset*
 REAL.3M-sleep-Cofs-USP
 ‘He fell asleep’ [speaker translation]
 (AW, fieldnotes, 02/05/2019)

- 2.29) *n-aka* *nenangkwarba* *n-arji-nga- \emptyset*
 3M-this 3M.man REAL.3M-stand-Cofs-USP
 ‘The man stood up’ [author translation]
 (ST, fieldnotes, 14/07/2016)

These properties of *-nga* augmented stems in Anindilyakwa thus appear to follow those proposed for other Gunwinyguan languages, and the proto-Gunwinyguan *-ng* augment (Alpher, Evans & Harvey 2003: 313).

2.4 A note about phonologically \emptyset realisations of the [+3] slot of the verbal template

There are three instances in which the [+3] slot of the verbal template is realised phonologically as \emptyset :

- i) As an allomorph of the PAST TAM suffix, for class 4 verbs. See Table 2.11;
- ii) The absence of a phonologically overt marker (i.e. a bare stem/ phonologically \emptyset slot of the [+3] paradigm), which in combination with the portmanteau prefix paradigm, is involved in expressing different aspectuo-temporal readings, and is historically related to two phonologically overt TAM suffixes in other eastern Gunwinyguan languages. Glossed in example sentences as USP (UNDERSPECIFIED). See §6.5 for detailed discussion;
- iii) In serial verb-like associated motion constructions, in which the first verb in a sequence takes overt inflectional TAM marking, while the second is realised with a phonologically \emptyset form in the [+3] slot of the verb template, but which follows the aspectuo-temporal semantics of the first, overtly-inflected verb of the sequence (i.e. distinct from the USP bare stem/phonologically \emptyset marker). Glossed in example sentences as AM (ASSOCIATED MOTION). See §3.3.2.3.2 for detailed discussion.

Examples of these three different instances of \emptyset phonologically realisation of the [+3] slot of the verbal template are provided below. Example (2.30) shows \emptyset in the [+3] slot as the PAST TAM suffix for a class 4 verb (in this case *-marrakaja-* ‘grab’).

2.30)	<i>arakh-ərahbə+wiya</i>	<i>dh-akəna</i>	<i>dhədharrəngka</i>	
	REDUP-COMPL.ACT+QUANT	3F-that	3F.woman	
	<i>yingənə-marrakaja-\emptyset=ma</i>	<i>n-akə</i>	<i>nenəngkwarba</i>	<i>akən</i>
	REAL.3F>3M-grab-PST=MUT	3M-this	3M.man	NEUT.that
	<i>ayika</i>			
	NEUT.tree			

‘The woman used to grab the stick from this man all the time’ [author

translation] [in response to the prompt: ‘and if he used to do that a long time ago, whenever her husband walked past her she would snatch that stick from him’]

(ST, JRB1-037-02, 00:16:30-00:16:43)²⁹

Examples (2.31) and (2.32) shows \emptyset in the [+3] slot as the absence of a phonologically overt marker (i.e. a bare stem/ phonologically \emptyset slot of the [+3] paradigm), which in combination with the portmanteau prefix paradigm is involved in the expression of different aspectuo-temporal readings, interacting with interacting with Aktionsart/event structure aspect properties of the verb, pragmatic reasoning and discourse relations (note the past temporal realisation of the situation in example (2.31) in comparison to the present temporal interpretation of the situation in (2.32) (discussed further in §6.5).

2.31) *yarrungkwa* *n-akəna* *nenəŋkwarba ni-lyumadhu- \emptyset =ma*
 yesterday 3M-that 3M.man REAL.3M-disappear-USP=MUT
 ‘He disappeared’ [speaker translation]
 (JL, JRB1-050-01, 00.27.52-00.27.59)

2.32) *ngayuwa* *ngu-məreya- \emptyset* *anhəngu=wa*
 1.PRO REAL.1-be.hungry-USP NEUT.food=ALL
 ‘I’m hungry for food’ [speaker translation]
 (JL, JRB1-050-01, 00.15.27-00.15.32)

Example (2.33) demonstrates a serial verb-like associated motion construction, in which the first verb of the sequence (*-angkarrə-* ‘run’) is inflected with overt IRREALIS + PAST marking, while the second verb of the sequence (*-rukwu-lyaka-ja-* ‘encircle’), indicating the associated motion of encircling [the house], shows \emptyset in the [+3] slot, whereby the aspectuo-temporal semantics follows that of the overtly inflected verb (*-angkarrə-* ‘run’) (discussed further in §3.3.2.3.2).

2.33) *n-akəna* *kən-angkarrə-nə=manja*
 3M-that IRR.3M-run-PST=LOC

²⁹ Stimuli: EDED video, 2013 series, no. 55.

‘I have a husband’
 (Stokes n.d.-b: 44)

2.36) *akena* *n-enəng-arijira=ma* *ngəwa* *ni-jungwu-Ø=ma*
 however 3M-M.ALP-child=PRIV continue REAL.3M-die-USP=MUT
en-ejə-kwaba *n-akəna*
 3M.PRO-CofR-also 3M-that
 ‘But he died too, without having any children’
 (Bible Society in Australia 1992: 822)

The second main domain in which the *=ma ~ =mərɾa* marker is involved (and which comprises the focus of this section), is in relation to epistemic perspective or epistemic stance; in independent clauses I argue that *=ma ~ =mərɾa* is involved in situating the speaker’s and the addressee’s epistemic perspectives with regard to an event (§2.5.1). In a related discourse function, *=ma ~ =mərɾa* can also provide focus and emphasis, occurring with verbs as well as nominals (§2.5.2).

Finally, in dependent clauses *=ma ~ =mərɾa* occurs as a relative/subordinate clause marker; obligatory in all relative clauses, and in certain adverbial subordinate clauses (§2.5.3).

This section overviews these semantic and pragmatic properties of *=ma ~ =mərɾa*, (engagement in §2.5.1; focus-emphatic marking in §2.5.1; dependent clause marking in §2.5.3) before providing a note on variation in form (*=ma* vs. *=mərɾa*) in §2.5.4, and considering whether we should analyse *=ma ~ =mərɾa* as a case of synonymy or homonymy in §2.5.5.

In addition to these core functions dealt with in this section, I suggest that additionally the *=ma ~ =mərɾa* morph can be co-opted as a means of specifying temporal reference, due to the potential surface neutralisation of inflectional TAM markers of some verb classes. This is discussed in relation to inflectional tense/aspect marking in §6.3.1.3.

2.5.1 =ma ~ =mər̥ra as marking symmetrical access to information (i.e. mutual knowledge) from the perspective of the speaker

2.5.1.1 Overview

I suggest that one of the primary uses of =ma ~ =mər̥ra is as a means of grammatically encoding the relative accessibility of an entity or state of affairs between the speaker and addressee (i.e. it addresses a speaker’s assumptions regarding the degree to which their knowledge (or perceived knowledge) is shared (or not) by the addressee), a notion termed ‘engagement’ (Landaburu 2007) (amongst other terms) in the literature.

I suggest that =ma ~ =mər̥ra is an optional clitic, encoding symmetrical access to information between speaker and addressee (i.e. mutual knowledge; information mutually taken for granted as being shared between the two discourse participants), but framed from the perspective of the speaker. These two dimensions (access and perspective) are displayed in Table 2.14. As this table demonstrates, Anindilyakwa does not display a canonical engagement system, with only this one category able to be expressed grammatically (i.e. there are no forms to express asymmetrical information access, or addressee-perspective).

	Speaker-perspective	Addressee-perspective
Asymmetric		
Symmetric	✓	

Table 2.14 Access and perspective encoded by =ma ~ =mər̥ra

I consider here these two dimensions of meaning encoded by =ma ~ =mər̥ra in more detail. With respect to information access, symmetrical access indicates that the speaker acknowledges equal access and shared epistemic authority to the information with the addressee, with whom common ground has been established (and where the common ground may be restricted to specific information shared by the interlocutors, or may extend to general information shared in the speech community) (Hintz & Hintz 2017: 103). This encompasses accepted truths and gnomic knowledge that the speaker perceives the addressee to be familiar with; information that the speaker assumes the addressee to know, or assumes to be obvious to the addressee; information that, from the perspective of the speaker, would not be unsurprising or unexpected to the addressee (which, for instance in the context of telling a story could even

be new information, but not information that would prove to be surprising, unexpected or irrelevant in the context); and can even be used as a device to give the impression of individual knowledge being shared knowledge (i.e. where the speaker presents information as jointly held, even though the information was not previously known by the addressee, thus in a way inviting the addressee to become an ‘insider’ and join the speaker’s ‘mutual knowledge community’ (Hintz & Hintz 2017: 95)). With respect to perspective, on the other hand, *=ma ~ =mər̥ra* indicates that the perspective lies with the speaker. That is, while the information is shared knowledge, accessible to both speaker and addressee, it is framed from the perspective of the speaker.

This analysis of *=ma ~ =mər̥ra* as an engagement marker is still preliminary in many ways, and requires much further quantitative and discourse analysis to be carried out in order to substantiate and expand the claims that have been made here. In particular, a much larger corpus of conversational material will be key to further exploring this area. Clearly, interaction between interlocutors is of key importance in the engagement meaning of this *=ma ~ =mər̥ra* marker, and given that conversational data only made up a small percentage of the data collected for this project (with the vast majority being elicited/semi-elicited/narrative material), a more extensive corpus of conversational and interactional data will be sure to shed further light on the semantics and pragmatics of this complex *=ma ~ =mər̥ra* clitic.

For a preliminary analysis of this *=ma ~ =mər̥ra* engagement marker, including more extensive discussion of its distribution and illustrative datapoints, see Appendix C.

2.5.1.2 Previous analyses of *=ma ~ =mər̥ra*

Within the structure the verb, *=ma ~ =mər̥ra* occurs in slot [+4] of the template, following after the TAM suffix slot. The function of this marker (particularly in independent clauses) has received fairly widely ranging analyses in the past, as displayed in Table 2.15.

Source	<i>=ma ~ =mər̥ra</i> meaning
Heath (n.d.)	‘no evident meaning’, aside from having a ‘useful function in permitting surface differentiation of’ PAST vs. NON-PAST verb forms’ (see §6.3.1.3 for further discussion of this topic)
Stokes (1982, n.d.-b)	indicates a ‘statement of fact’ in indicative clauses, and as an emphatic marker in imperative/hortative clauses, ‘denoting a sense of urgency

	[and] drawing attention to the importance of the command or request’ (Stokes n.d.-b: 67)
Leeding (1989)	aspectual suffix, expressing imperfective aspect
van Egmond (2012)	‘first person focalisation marker’, referring to a first-person perspective through which a narrative is presented (van Egmond 2012: 225)

Table 2.15 Previous analyses of =*ma* ~ =*mər*ra

As Table 2.15 demonstrates, =*ma* ~ =*mər*ra clearly has a very complex semantics, which has proven difficult to pin down. I have claimed that the =*ma* ~ =*mər*ra marker is meaningful (*contra* Heath n.d), but not as an aspectual marker (cf. Leeding 1989), a ‘statement of fact’ marker (cf. Stokes’ (1982, 1984) nor (exclusively as) a ‘first person focalisation marker’ (cf. van Egmond 2012). While the usage and distribution of =*ma* ~ =*mər*ra is consistent with many of the observations of previous scholars (particularly van Egmond’s (2012) analysis of =*ma* ~ =*mər*ra as a speaker perspective marker), I suggest that my analysis of =*ma* ~ =*mər*ra as expressing shared knowledge (or perceived shared knowledge) between the speaker and addressee (which at the same time is framed from the perspective of the speaker), better accounts for the varied and seemingly diverse datapoints associated with =*ma* ~ =*mər*ra marking.

2.5.2 =*ma* ~ =*mər*ra as a focus marker

Related to indicating engagement, =*ma* ~ =*mər*ra can also provide a discourse-pragmatic role of expressing focus and emphasis. This can occur with verbs, as well as with nominals, as shown in examples (2.37) – (2.39). In addition to =*ma* ~ =*mər*ra, there are a number of other focus/emphatic clitics in Anindilyakwa, particularly =*ka*, =*ba*, =*dhangwa*, =*lhangwa* and =*bena*. These are listed in Appendix B. The semantics of these discourse clitics, however, requires more fine-grained, future research.

- 2.37) *awilyaba=ma angalya akena angurrkw-ambilyəma*
 one=EMPH NEUT.place but NEUT.hole-two
 ngarrə-ngurrkw-arrnga-rnə=ma dhərranda=ma
 REAL.3A>NEUT-hole-split-PST=MUT FEM.wife=INST

‘There was one cage, but they had divided it into two enclosures with wire

netting’

(Stokes 1982: 124)

- 2.38) *kərrə-dharrəŋka* *kərrə-dharrəŋka* *kərru-wilyaba=mərra*
2A-woman 2A-woman 2A-one=EMPH

‘You women, you women are all of the same kind’

(van Egmond 2012: 229, from Mixed marriages e30)

- 2.39) *enena* *kemba nəŋarra-maka-Ø=ma* *wurru-kwalha*
NEUT.this then REAL.1>3A-tell-PST=MUT 3A-some
warningkwaba=dha nara *ngakurruwa=mərra* *wurrə-mən-arəma*
3A.man=TRM NEG 12A.PRO=EMPH 3A-BENE-big

angalya *Darwin* *akəna* *bujikeda*
NEUT.place Darwin NEUT.that NEUT.cat

nəŋə-rrəŋka-Ø=ma

REAL.1>NEUT-see-PST=MUT

‘Then I told some other men, not our men, others in Darwin, [about] the cat I had seen’

(GL, A3369a Side 1 a3.4, Bujikeda ‘Mother cat’)

2.5.3 =ma ~ =mərra as a dependent clause marker

In dependent clauses, =ma ~ =mərra occurs as a dependent clause marker. =ma ~ =mərra is obligatory in relative clauses, following the [+3] TAM slot of the verbal template, as in example (2.40).

- 2.40) *yirrə-rrəŋka-Ø=ma* *arakba* *ngayuwa* *nəŋ-enibu-dhə-Ø=ma*
REAL.2A-see-PST=MUT COMPL.ACT 1.PRO REAL.1-alive-INCH-USP=DEP
amandhangwa *nəŋgi-jungwu-Ø=mərra=dha*
true REAL.1-die-USP=MUT=TRM

‘Now you have seen that I really am alive again [it’s true that I died before]’

(Bible Society in Australia 1992: 890)

Relative clauses in Anindilyakwa most frequently involve case clitics, whereby the clitics retain the same meanings as when they attach to nominals (generally semantic roles expressing spatial readings). While all relative clauses obligatorily take the dependent clause marker, the form of the marker is dependent upon the case clitic that follows. Relative clauses involving the ABLATIVE =*lhangwa*, PERLATIVE =*lhangwiya* or the QUANTIFICATIONAL =*wiya* can take the form =*ma* ~ =*mər̥ra* (i.e. the forms are in free variation³⁰), while for those involving the ALLATIVE =*wa*, LOCATIVE =*manja*, DENIZEN =*kba* or PROPRIETIVE/PRIVATIVE/COMITATIVE =*ma~mər̥ra*, only the form =*mər̥ra* is permitted. van Egmond (2012: 234-35) suggests that the motivation for the acceptability of the formal properties of this marker could be due to an inverse haplology rule, whereby the long versions of the suffix (=mər̥ra) is used to avoid two syllables starting with a sonorant with the same place of articulation (i.e. *=*ma=manja*, *=*ma=wa*). While this works for the majority of the clitics it doesn't explain why, for instance, =*ma=wa* is unacceptable but =*ma=wiya* (which shares the same initial consonant) is acceptable. The motivation driving the form of the =*ma~mər̥ra* clitic depending upon the following clitic will be left to future research.

In addition to relative clauses, t-complementising adverbial clauses also often take the =*ma~mər̥ra* dependent clause marker. However, whether or not the =*ma~mər̥ra* marker is obligatory, optional or disallowed depends upon the clitic attaching to the verb. The =*wa* ALLATIVE, =*kba* DENIZEN and =*baba* REASON clitics obligatorily take the =*ma~mər̥ra* marker³¹, the =*lhangwa* ABLATIVE optionally takes the =*ma~mər̥ra* marker, and the LOCATIVE =*manja*, PERLATIVE =*lhangwiya*, QUANTIFICATIONAL =*wiya*, PURPOSIVE =*yedha* and EVITATIVE =*maka* disallow the =*ma~mər̥ra* marker.

The distribution of the =*ma~mər̥ra* marker in relative vs. subordinate clause contexts, in combination with different clitic markers is demonstrated in Table 2.16. For further discussion of dependent clauses, see §3.3.2.

	Case marked relative clauses	T-complementising subordinate clauses
ABLATIVE = <i>lhangwa</i>	= <i>ma</i> ~ = <i>mər̥ra</i> obligatory	= <i>ma</i> ~ = <i>mər̥ra</i> optional
ALLATIVE = <i>wa</i>	= <i>mər̥ra</i> obligatory	= <i>mər̥ra</i> obligatory

³⁰ See §2.5.4 for further discussion regarding the form of =*ma* vs. =*mər̥ra*.

³¹ As with relative clauses, the form of the dependent clause marker with =*wa* ALLATIVE and =*kba* DENIZEN clitics in t-complementising clauses is =*mər̥ra* (not =*ma*), however with the =*baba* REASON clitic, the form of the dependent clause marker can be =*ma* ~ =*mər̥ra* (i.e. in free variation).

LOCATIVE = <i>manja</i>	= <i>mər̥ra</i> obligatory	= <i>ma</i> ~ = <i>mər̥ra</i> disallowed
DENIZEN = <i>kba</i>	= <i>mər̥ra</i> obligatory	= <i>mər̥ra</i> obligatory
PROPRIETIVE/PRIVATIVE/ COMITATIVE = <i>ma~mər̥ra</i>	= <i>mər̥ra</i> obligatory	n/a
PERLATIVE = <i>hangwiya</i>	= <i>ma</i> ~ = <i>mər̥ra</i> obligatory	= <i>ma~mər̥ra</i> disallowed
QUANTIFICATIONAL = <i>wiya</i>	= <i>ma</i> ~ = <i>mər̥ra</i> obligatory	= <i>ma</i> ~ = <i>mər̥ra</i> disallowed
PURPOSIVE = <i>yedha</i>	n/a	= <i>ma</i> ~ = <i>mər̥ra</i> disallowed
EVITATIVE = <i>maka</i>	n/a	= <i>ma</i> ~ = <i>mər̥ra</i> disallowed
REASON = <i>baba</i>	n/a	= <i>ma</i> ~ = <i>mər̥ra</i> obligatory

Table 2.16 Distribution of =*ma* vs. =*mər̥ra* in dependent clauses (case marked relative clauses vs. T-complementising subordinate clauses)³²

2.5.4 The form of =*ma* vs. =*mər̥ra*

=*ma* and =*mər̥ra* occur in free variation, although =*ma* is the more common form of the two. van Egmond (2012: 234) suggests that the choice between the two forms may be a matter of personal preference of the individual speaker. Anecdotally, speakers I have talked to suggest that =*mər̥ra* is more associated with speakers from Umbakumba community, however I have not found this to be demonstrated in the data that I have examined³³.

While for almost all uses of the =*ma* and =*mər̥ra* marker we find free variation between the two forms, as discussed in §2.5.3, in dependent clauses acting as a relative/subordinate marker, the form of the clitic is restricted to =*mər̥ra* following certain case clitics. This is possibly due to an inverse haplology rule.

2.5.5 =*ma~mər̥ra*: Summary

Clearly =*ma* ~ =*mər̥ra* is highly multifunctional, occurring as a marker of: i) engagement (MUT) (§2.5.1; Appendix C); ii) emphasis/focus (EMPH) (§2.5.2); iii) dependent clauses (DEP) (§2.5.3);

³² Obligatory =*ma* ~ =*mər̥ra* marking is shaded in orange; obligatory =*mər̥ra* marking is shaded in yellow; optional =*ma* ~ =*mər̥ra* marking is shaded in pink; disallowed =*ma* ~ =*mər̥ra* marking is shaded in blue; clauses that are not possible are shaded in grey.

³³ This has not, however, been a focus in this project, and variation such as =*ma* ~ =*mər̥ra* preference between individual speakers, as well as between different communities of the archipelago should be examined in future research.

and iv) INSTRUMENTAL, COMITATIVE, PROPRIETIVE, or PRIVATIVE case (INST; COM; PROP; PRIV) (§3.2.2.3; §3.2.3; Appendix A).

A question to consider is whether the different meanings of *=ma ~ =mər̥ra* are a case of polysemy, or homonymy (with no shared origin). While I do not provide a concrete answer to this question, a possible source for the multifunctionality of *=ma ~ =mər̥ra* could be extension of the INSTRUMENTAL/COMITATIVE/PROPRIETIVE/PRIVATIVE case functions, from a meaning of ‘I am with *x*’ to express ‘I am with *x*, in our understanding of *x*’, and further development in expressing this shared understanding/knowledge/access only between the speaker and addressee³⁴. Further examination of the nature of the polysemy or homonymy of *=ma ~ =mər̥ra* is left to future research.

2.6 Nominalised verbs

Verbs are nominalised using the very productive nominalising prefix *-k-*. Nominalised verbs can function as common nouns as well as non-finite verbs (van Egmond 2012: 122-3).

Nominalised verbs take obligatory inner gender prefix for human and animate noun classes (but not for inanimates) (van Egmond 2012: 122), and are inflected for nominal rather than verbal inflections (e.g. nominal prefixes and no TAM suffixation) (van Egmond 2012: 133).

The nominalising prefix *-k-* is very productive, and is often used to coin new words in the language for introduced items (van Egmond 2012: 123).

For further discussion of the non-finite verb function of nominalised verbs, see §3.3.1.

2.7 Summary

Verbs in Anindilyakwa are notable for their complex inflectional morphological make-up and combinatorics; a feature that is particularly evident when considering TAM expression, which is realised through combining information from at least two discontinuous morphological slots of the verbal template.

The inflectional system of the Anindilyakwa verb is seemingly fairly transparent, however throughout this thesis in analysing this verbal system I favour a Word-and-Paradigm

³⁴ Alternatively, van Egmond (2012: 235) suggests that *=ma ~ =mər̥ra* might have developed from the verb *-ma-* ‘do, say’.

approach (i.e. an inferential-realisation approach), over an Item-and-Arrangement model, which I suggest is better equipt to analyse and explain the verbal system.

Anindilyakwa has verb stems that can be simple or complex; simple stems are comprised of just the verb root, while complex stems consist of a (historically) uninflecting element followed by a former finite verb root, which while synchronically monomorphemic, remains today in the form of a stem-final submorphemic element (cf. van Egmond 2012, Chapter 5).

The verb in Anindilyakwa (which has a templatic structure) is involved in marking person, number, modality and transitivity (in a series of portmanteau prefixes); TAM expression (through combining information from at least two morphological slots of the verb structure: one of three series of pronominal prefixes (REALIS, IRREALIS, DEONTIC) + one of four possible TAM suffixes (NON-PAST, PAST, Ø, POTENTIAL)); argument expression (through derivational affixes); as well as having the ability to productively incorporate nominals.

Chapter 3

Overview of clause types

This chapter provides a general overview of the notion of ‘clauses’, and the different clause types encountered in Anindilyakwa. §3.1 considers the nature of the clause in Anindilyakwa, before overviewing simple, main clauses in §3.2. These can be subdivided into clauses with verbal (§3.2.1) and non-verbal predicates (§3.2.2). The negation of simple clauses is briefly examined in §3.2.4. §3.3 overviews complex clauses, considering first the relatively infrequently occurring non-finite dependent clauses (§3.3.1), before turning to finite dependent clauses in §3.3.2 (considering relative clauses in §3.3.2.1, subordinate adverbial clauses in §3.3.2.2, and serial verb-like constructions in §3.3.2.3). While there are some features of subordinate clauses that can formally identify them (e.g. relative clauses must take an obligatory *=ma~=mər̩ra* subordinator marker, and case clitics that occur with t-complementising adverbial subordinate clauses and cannot occur in independent clauses), often there are no formal means of distinguishing between independent and dependent clauses (given that both involve fully inflecting finite verbs). This difficulty is discussed within this section. Negation of dependent clauses is overviewed in §3.3.3. §3.4 very briefly overviews different sentential mood types of simple clauses. The final section (§3.4) overviews different sentential mood types of simple clauses, and the chapter concludes with a summary in §3.5.

Much of the information covered in this chapter is fairly general, provided here as important background information for following chapters (and thus examined in greater detail in Parts II and III of this thesis). In particular, the overview provided here concerning complex

clauses is relevant to Chapters 8 and 10, where temporal and modal relations between independent and dependent clauses are examined in further detail.

3.1 Nature of the clause in Anindilyakwa

As is common amongst northern Australian languages, Anindilyakwa has fairly free (pragmatically determined) word order, and a head-marking structure, which means that free nominals are not obligatory, with the core arguments being able to be expressed on the verb alone. These factors can make delineating exactly what constitutes a clause difficult, as has been noted for other languages of northern Australia. For example, as Evans (2003: 548) notes for a related language, Bininj Kunwok (Gunwinyguan), the fact that the language obligatorily marks core arguments on the verb and only optionally as free nominals makes it difficult to ascertain whether a particular nominal is really a subject/object of the verb, or instead an adjoined nominating word that gives extra information about one of the arguments (like an ‘afterthought’ NP in English) (cf. Jelinek 1984).

Intonation is one means that is often cross-linguistically used to delineate clausal units, whereby intonation units will correspond to basic units of information in spoken discourse and thus can be taken as the basis of clausal description (Schulze-Berndt 2000: 107). There are, of course, problems associated with using intonation as a means of delineating clauses, given that there are intonational factors at play below the clausal level, and that in rapid speech intonational breaks might not be present (or at least very difficult to ascertain). However, as a general means of identifying clauses intonational units can provide a good guide.

3.2 Simple clauses

3.2.1 Verbal clauses

Verbal clauses in Anindilyakwa must contain a finite verb. The head marking of the verb (and to a more peripheral extent, the marking of dependents) is governed by valency properties of the verb. Valency determines the arguments a verb can cross-reference, thus verbs can be subdivided into various categories based on these properties. A primary distinction is made between monovalent verbs, which take only a single subject (S) argument (e.g. *-lhəkə-* ‘go’, *-bijangə-* ‘jump’), bivalent verbs (e.g. *-wardə-* ‘hit’, *-alybarə-* ‘eat’) taking subject (S) and direct object (DO) argument, and trivalent verbs (e.g. *-kwə-* ‘give’, *-yikə-* ‘bring’), which

3.4) *yirrə-ma-ngə=mərri*
 REAL.1A>NEUT-take-PST=MUT
 ‘We took it’
 (Stokes n.d.-b: 26)

3.5) *yirrə-rrəngkə-na=mərri* *arəma* *amarda* *awalyuwa*
 REAL.1A>NEUT-see-NPST=MUT NEUT.big NEUT.grass NEUT.ripe
ardədarra
 NEUT.hot
 ‘We see a lot of very dry grass’
 (Stokes n.d.-b: 27)

Semi-transitive verbs are those that are intermediary between fully intransitive and fully transitive verbs (a category not uncommon across Australian languages; so-called ‘extended intransitive’ verbs *à la* Austin 1993).

With these verbs in Anindilyakwa, the direct object argument is not cross-referenced on the verb, but rather expressed as an overt nominal, sometimes marked with the ALLATIVE case clitic (compare examples (3.6) and (3.7)). Nominals can become cross-referenced arguments on the verb through the BENEFACTIVE applicative derivational prefix (compare examples (3.8) and (3.9)) (van Egmond 2012: 151).

3.6) *k-engkərri-ja=ma* *nungkwa* *ngalhuwa=wa*
 IRR.2-listen-NPST=MUT 2.PRO 3F.PRO=ALL
m-ababərnə=lhangwa *mamawura*
 VEG-many=ABL VEG.day
 ‘You will listen to her every day’
 (Stokes n.d.-b: 33)

3.7) *nəng-engkərri-rna* *nungkwa* *engkə=lhangwa*
 REAL.1-listen-PST 2.PRO NEUT.another=ABL
 ‘I heard you from a distance’
 (Stokes n.d.-b: 33)

- 3.8) *Christ ni-jungə-nə=ma* *kajungwa*
 Christ REAL.3M-die-PST=MUT so.that
ngarrə-werri-ngekburni=yedha
 12A-chest-good=PURP
 ‘Christ died so that he could make us perfect’ [source translation]
 (Bible Society in Australia 1992: 935)

- 3.9) *en-eja* *Christ ngarrenə-mənə-jungwə-nə=ma* *n-akəna*
 3M-CofR Christ REAL.3M>12A-BENE-die-PST=MUT 3M-that
 ‘Christ died for us’ [source translation]
 (Bible Society in Australia 1992: 898)

Cognate object verbs are another instance of a morphologically intransitive verb that may take an unregistered argument (compare examples (3.10) and (3.11)). The argument occurs as an overt nominal (i.e. the cognate (direct) object), which may not be marked with a case clitic to express its argument properties (i.e. it behaves like a direct object of a transitive verb) (cf. Austin 1982) (compare examples (3.12) and (3.13)). See van Egmond (2012: 152) for further details.

- 3.10) *aməramə=lhangwiya kə-mebi-na=ma*
 NEUT.quiet=PERL IRR.1-sing-NPST=MUT
 ‘I’ll sing quietly’
 (Stokes n.d.-b: 32)

- 3.11) *yarrungkwa nə-mebi-nə=ma* *emeba*
 yesterday REAL.3M-sing-PST=MUT NEUT.song
 ‘Yesterday he sang’ [author translation]
 (ST, JRB1-037-01, 00:02:30-00:02:33)

- 3.12) *ni-yakwurra-Ø* *n-akəna* *akungwa* *alyarrəngwalyilya*
 REAL.3M-be.thirsty-USP 3M-that NEUT.water NEUT.night
 ‘He was thirsty [for water] during the night’
 (Stokes n.d.-b: 26)

- 3.13) *ngayuwa ngə-məreya-Ø anhangu=wa*
 1.PRO REAL.1-be.hungry-USP NEUT.food=ALL
 ‘I’m hungry for food’ [speaker translation]
 (JL, JRB1-050-01, 00.15.27-00.15.32)

Given that verbs can cross-reference only up to two arguments through pronominal prefix marking, for ditransitive verbs (i.e. verbs expressing trivalent relations) the DO is left unexpressed from the head of the verb, and rather occurs as a free nominal (while the S and IO are expressed through a transitive pronominal prefix (example 3.14) (van Egmond 2012: 150).

- 3.14) *nu-wilyaba nenəngkwarba nenə-kwa-Ø=ma akəna*
 3M-one 3M.man REAL.3M>3M-give-PST=MUT NEUT.that
a-kə-rrabə-rrəngka n-akənu=wa nenəngkwarba
 NEUT-NSR-REDUP-see 3M.that=ALL 3M.man
 ‘The man gave the binoculars to the other man’ [author translation]
 (JL, JRB1-029-01, 00.12.37)

As was mentioned above, the BENEFACTIVE applicative derivational prefix is used to add an extra argument to the verb. This was demonstrated in example (3.9) with an intransitive verb. Similarly the BENEFACTIVE can occur with transitive verbs, resulting in the expression of a trivalent relation, where the new (IO) argument is expressed through the pronominal prefix marking, while the DO (which in original transitive verb is marked in the pronominal prefix) is relegated to being expressed only by a free nominal (van Egmond 2012: 151). Compare examples (3.15) and (3.16).

- 3.15) *nə-ma-kwulharrə-ju-wa=ma merra enə=lhangwa=lhangwa*
 REAL.3M-VEG-pour-CAUS-PST=MUT VEG.blood 3M.PRO=POSS=ABL
ayarrka
 NEUT.hand
 ‘He made the blood pour out from his arm’
 (CW, fieldnotes, 11/04/2019)

- 3.16) *ngarrenə-mənə-kwulharrə-ju-wa=ma merra ena=lhangwa*
 REAL.3M>12A-BENE-pour-CAUS-PST=MUT VEG.blood 3M.PRO=POSS

‘He poured out his blood for us’
(Bible Society in Australia 1992: 898)

3.2.2 *Verbless clauses*

There is no distinct copula in Anindiyakwa, and thus there are a number of constructions that do not generally occur with a verbal predicate. These include particularly existential, equative, and ascriptive clauses (which may involve possessives, ‘having’ predicates, and comparatives), as well as clauses expressing cognitive states (generally expressed via adjectival predicates rather than verbs), and teleological modality. The types of verbless clauses discussed in this section should not be considered exhaustive, but rather as some of the most prominent and frequently encountered clauses that contain no verbal predicate. Given the absence of a verbal predicate in these clauses, they take no formal (inflectional) marking to express temporal or modal properties (although of course they can be modified through lexical means (e.g. particles, adverbials) in order to specify temporal or modal distinctions).

The verbless clauses discussed in this section almost all relate to states. This is discussed with respect to verbs (examining different Aktionsart types) in Chapter 4.

3.2.2.1 *Existential predicates*

Existential clauses express the existence of an entity. Often the topic is introduced with a nominal, placed before the nominal predicate (as in example (3.17)). The ordering is flexible in order to alter the topic focus in the clause (compare (3.17) to (3.18)).

3.17) *ena* *anhanga*
 NEUT.this NEUT.food
 ‘Here’s some food’
(Stokes n.d.-b: 47)

3.18) *anhanga* *ena*
 NEUT.food NEUT.this
 ‘This is food’
(Stokes n.d.-b: 47)

While existential clauses are generally expressed without a verbal predicate, the verb *-ambily-* ‘stay’ can also be used, where it acts like a copula (example (3.19)). Less commonly, the verb *-yemi-* ‘say, do, be’ can also act like a copula, as in example (3.20).

- 3.19) *bajikala akwa bangkilya yakwujina arrawa*
 NEUT.tin and NEUT.tomahawk there inside
nuw-ambilyu=ma m-akəna=manja malamukwa
 REAL.3M-stay.PST=MUT VEG-this=LOC VEG.canoe
 ‘A tin and a tomahawk were there inside the canoe’
 (Stokes n.d.-b: 21)

- 3.20) *wurru-wurrə-kwulyumədha ki-yamə-na=mərri wurr-akəna*
 3A-many-all IRR.3A-do-NPST=MUT 3A-that
warnumamalya
 3A.person
 ‘They will be many’
 (Stokes n.d.-b: 59)

3.2.2.2 Locational and motion predicates

Locational constructions often occur containing only nominal predicates and LOCATIVE marked constituents (i.e. without a verbal predicate), as in example (3.21).

- 3.21) *ngayuwa akwa wurr-adhə-yuwangkwa m-akəna=manja*
 1.PRO and 3A-F-old.person VEG-that=LOC
malamukwa
 VEG.canoe
 ‘The old woman and I were in that canoe’
 (Stokes n.d.-b: 46)

While motion is often expressed with a verbal predicate, it can also be expressed by non-verbal clauses, where the motion is inferred from a directional case clitic. This is demonstrated with the nominal constituent taking an ABLATIVE clitic, indicating motion from, in example (3.22), and an ALLATIVE clitic, indicating motion towards, in example (3.23).

3.22) *Darwin=lhangwa nəng-ena adhuwaba*
 Darwin=ABL 1-this today
 ‘I’ve come from Darwin today’
 (Stokes n.d.-b: 24)

3.23) *akwalyu=wa arakba wurr-akəna*
 NEUT.fish=ALLCOMPL.ACT 3A-that
 ‘They are going fishing now’
 (Stokes n.d.-b: 24)

3.2.2.3 Equative and ascriptive predicates

Equative clauses assert (or negate) information about the identity of a referent. They involve two nominals, where one provides identificational characteristics of the other (the predicate), as in examples (3.24) and (3.25).

3.24) *ngayuwə=ka nəng-ena nungw-ena=lhangwa nəngabərr-enikba*
 1.PRO=EMPH 1-this 3M.father-2.KIN=POSS 1.sister’s.son-3M.KIN
 ‘I am your father’s nephew’
 (Bible Society in Australia 1992: 231)

3.25) *dhərnd-irrkā Ribeka nganyangwa*
 3F.mother-1.KIN Rebecca 1.PRO.POSS
 ‘My mother is Rebecca’
 (Bible Society in Australia 1992: 231)

Ascriptive clauses characterise the referent of the predicational base (Schultze-Berndt 2000: 109). This generally concerns the denotation of qualities or properties of the referent, which relate to the description of stable states, as in examples (3.26) and (3.27).

3.26) *y-aka yimurrngwa y-imurrijungwa əmba mema*
 MASC-this MASC.wild.prune MASC-black but VEG.this
milharrngkwa m-əkwyadhada
 VEG.berry VEG-white

‘These wild prunes are black, but these berries are white’

(Groote Eylandt Linguistics 1993: 228)

- 3.27) *yirrə=lhangwa* *yikarba* *yirr-arəm-ərəmə=lhangwa*
1A.PRO=POSS MASC.woomera 1A-REDUP-big=POSS
‘Woomeras are for us grown-ups’
(Stokes n.d.-b: 44)

3.2.2.3.1 Possessive predicates

As prefaced in the previous section, possessive constructions often occur in verbless clauses. There are three primary ways of marking possession in Anindilyakwa; the use of the possessive clitic (as demonstrated in example (3.27)), the inalienable possessive prefix (which expresses ‘a permanent and inherent association between the possessor and the possessed’ (Chappell & McGregor 1996: 4) (example (3.28)), and the alienable possessive prefix (which expresses ‘a variety of rather freely made associations between two referents, that is, relationships of a less permanent and inherent type’ (Chappell & McGregor 1996: 4) (example (3.29)) (van Egmond 2012).

- 3.28) *n-enə-m-alhaka*
3M-M-INALP-NEUT.foot
‘His tracks’
(van Egmond 2012: 111)

- 3.29) *enəng-alhaka*
NEUT.M.ALP-NEUT.foot
‘Shoe’
(van Egmond 2012: 111)

3.2.2.3.2 =*ma*~=*mər*ra PRIVATIVE/PROPRIETIVE clitic clauses

The use of the =*ma*~=*mər*ra PRIVATIVE/PROPRIETIVE clitic can be used to express notions of ‘having, containing, being equipped with’³⁵, indicating an adnominal relationship between inanimate nominals (as in examples (3.30) and (3.31)), as well as between animate nominals (e.g. relationships between people, as in example (3.32)).

- 3.30) *angaba* *tea* *bajikala=ma*
 NEUT.that.over.there NEUT.tea NEUT.billy=PROP
 ‘There’s the tea in the billy’ [i.e. the billy has tea]
 (Stokes n.d.-b: 45)

- 3.31) *jukwa* *packet=əma*
 NEUT.sugar NEUT.packet=PROP
 ‘Sugar in a packet’ [i.e. the packet has sugar]
 (Stokes n.d.-b: 10)

- 3.32) *nəng-enungkwarbu=ma* *nəng-ena*
 1-man=PROP 1-this
 ‘I have a husband’
 (Stokes n.d.-b: 44)

Interestingly, when combined with the alienable possession prefix, the =*ma*~=*mər*ra clitic has a privative meaning, as in example (3.33) (van Egmond 2012: 290) (see §3.2.3 for further discussion).

³⁵ Alternatively, the verb, -*wilyakə*-, can be used to express a range of notions relating to ‘having, holding, taking, bringing, carrying’. Also, when in order to express illnesses or soreness of body parts, such clauses will often contain only the nominal predicate along with nominal compliments, as in the following example:

wulkwa *ekbarra* *nəng-ena*
 only NEUT.headache 1-this
 ‘I just have a head-ache’
 (Stokes n.d.-b: 44)

- 3.33) *nəng-adhəng-enungkwarbu=ma* *nəng-ena*
 1-F.ALP-man=PRIV 1-this
 ‘I don’t have a husband’
 (CW, fieldnotes, 11/04/2019)

3.2.2.3.3 Comparatives

As was also briefly demonstrated in §3.2.2.3 (in example (3.26)), comparative constructions in Anindilyakwa are generally relative, juxtaposing two (or more) contrasting nominals, often with the conjunction *əmba* ‘but’, as in example (3.34).

- 3.34) *ena* *akwalya* *amakwulyumədha* *əmba* *ena*
 NEUT.this NEUT.fish NEUT.huge but NEUT.this
arəma *əmba* *ena* *eyukwujiya*
 NEUT.big but NEUT.this NEUT.small
 ‘This fish is huge, this one is big, but this one is small’
 (Groote Eylandt Linguistics 1993: 221)

The particle *angwurra* INTENSIFIER is also used as a means of comparing two unequal items or qualities, as in (3.35).

- 3.35) *mə-wank-ababərna* *mamawuwa* *memə=manja beka* *əmba*
 VEG-DIM-many VEG.marbles VEG.this=LOC VEG.bag but
m-ababərna *angwurra* *m-angabə=manja*
 VEG-many INTS VEG-that.over.there=LOC
 ‘There are quite a lot of marbles in this bag, but there are a lot more in the one over there’
 (Stokes 1982: 62)

In order to compare two (or more) equivalent (or near-equivalent) nominals, the conjunction *wubərna* ‘like’ is used. Such constructions provide an indication of similarity between two items (or qualities), as in (3.36) and (3.37).

- 3.36) *kawm=ka* *wubər̄ra* *ena*
 NEUT.comb=EMPH like NEUT.this
 ‘It’s like a comb’
 (Stokes n.d.-b: 44)

- 3.37) *m-ambawura* *mema* *marndekirriyerra* *enə=manja*
 VEG-few VEG.this VEG.yam NEUT.this=LOC
angalya *wubər̄ra* *angakuba*
 NEUT.place like NEUT.over.there
 ‘There are as few yam in this place as there are over there’
 (Stokes 1982: 64)

3.2.2.4 Cognition adjectival predicates

States of cognition, ability/capacity and aptitude (or lack thereof) are expressed in Anindilyakwa via adjectival predicates (or adjective derived verbs). There are two sets of cognition adjectives used to express knowledge or lack of knowledge in Anindilyakwa: *eningma* ‘know’ (examples (3.38) and (3.40)) and *eningbala* ‘not know’ (examples (3.39) and (3.40)) express knowledge (or lack of knowledge) accessed through acquaintance or familiarity, while *akakarəma* ‘know how’ (examples (3.41), (3.42) and (3.44)) and *ekikamarra* ‘not know how’ (examples (3.43) and (3.44)) express knowledge (or lack of knowledge) concerning ability/capacity (i.e. knowledge accessible through learning or mental ability).

Dynamic modality (including discussion of ability and capacity) is examined in Chapter 9, although with a focus on inflectional modal markers (particularly the IRREALIS pronominal prefix), rather than cognition adjectival predicates.

- 3.38) *nəng-en-ingma* *warnəng-eningaba=wiya* *wurr-akəna*
 1-M-know 3A.M.ALP-good=QUANT 3A-that
warnumamalya
 3A.person
 ‘I know that those people are good’
 (Stokes n.d.-b: 50)

- 3.39) *amandhangwa nəng-eningbala* *warna wurri-yukwayuwa*
truly 1-**not.know** 3A.this 3A-child
‘I truly don’t know these children’
(Stokes n.d.-b: 52)
- 3.40) *dh-aka dhədharrəngka* *dh-adh-ingma n-angaba*
3F-this 3F.woman 3F-F-**know** 3M-that.over.there
neniyuwangkwa *əmba dh-aka dh-eningbala n-akəna*
3M.old.man but 3F-this 3F-**not.know** 3M-that
‘This woman knows the old man over there, but this woman doesn’t know him’
(Groote Eylandt Linguistics 1993: 238)
- 3.41) *ngayuwa* *nəng-akakərəma* *akwala* *ayakwa*
1.PRO 1-**know** NEUT.some NEUT.language
Macassar
NEUT.Macassar
‘I know some Macassar words’
(Stokes n.d.-b: 51)
- 3.42) *wurr-akakərəmə=ka* *nganyangwa* *wurruwarda*
COLL-**know**=EMPH 1.PRO.POSS COLL.dog
‘My dog is clever’
(Stokes n.d.-b: 50)
- 3.43) *nəngə-kikamarra* *emeba* *dhinginjabenə=lhangwa*
1-**not.know** NEUT.song FEM.dolphin=ABL
‘I don’t know the song about the dolphin’
(Stokes n.d.-b: 52)
- 3.44) *n-aka* *n-akakərəma* *dambakwa* *əmba n-aka*
3M-this 3M-**know** NEUT.tobacco but 3M-this
ni-kikamarra
3M-**not.know**

‘This man smokes, but this man doesn’t smoke’

(Groote Eylandt Linguistics 1993: 238)

Furthermore, there are two adjectives (*abarda* ‘talented’, *enijiyangma* ‘not talented’) used predicatively to express ability and aptitude, or the lack of these qualities, as in examples (3.45) – (3.48).

3.45) *dh-abarda* *yilyakwa*
3F-**talented** MASC.wild.honey
‘She’s good [at finding] wild honey’
(Stokes n.d.-b: 54)

3.46) *dh-abarda* *akwalya* *mungarukwə=mər̩ra*
3F-**talented** NEUT.fish VEG.line=INST
‘She’s good at fishing with a line’
(Stokes n.d.-b: 54)

3.47) *nəng-enijiyangma* *akwalya* *ngayuwu=dha*
1-**not.talented** NEUT.fish 1.PRO=TRM
‘I’m no good at fishing’
(Stokes n.d.-b: 55)

3.48) *yaraja* *y-abarda* *yeya* *əmba*
MASC.goanna MASC-**talented** MASC.footstep but
yimarndakuwaba *y-inijiyangma*
MASC.blue.tongued.lizard MASC-**not.talented**
‘Goannas are good at running but blue-tongued lizards are no good at running’
(Groote Eylandt Linguistics 1993: 239)

3.2.2.5 Teleological modal predicates

The PURPOSIVE and ABLATIVE clitics can attach to nominal complements in order to express teleological/instrumental/enabling modalities, as in (3.49) – (3.51). As demonstrated by these examples, they can occur in clauses with only a nominal predicate. They often, however, also

occur with verbal predicates. PURPOSIVE constructions are considered further in the context of complex clauses in §3.3.2.2, and are examined in detail (considering their modal and temporal properties of intentionality and imminence) in §10.2.1.

- 3.49) *m-eningaba malaba kayuwu=yedha*
 VEG.good VEG.malaba NEUT.dilly.bag=**PURP**
 ‘Malaba is good for [making] dilly bags’
 (Stokes n.d.-b: 12)

- 3.50) *m-eningaba malaba kayuwu=lhangwa*
 VEG.good VEG.malaba NEUT.dilly.bag=**ABL**
 ‘Malaba is good for [making] dilly bags’
 (Stokes n.d.-b: 12)

- 3.51) *akəna=lhangwa nəng-ena yelakwa*
 NEUT.that=**ABL** 1-this here
 ‘That’s why I’m here’
 (Stokes n.d.-b: 46)

3.2.3 Negation in simple clauses

The NEGATIVE particle *nara*³⁶ is the primary means of negation, used in both constituent and clausal negation. It can be used as an interjection (i.e. meaning ‘no’), or can occur as a particle preceding the predicate. Negated verbal predicates expressing past temporal situations are obligatorily marked with an IRREALIS series pronominal prefix and PAST TAM suffix, while verbal predicates for situations occurring at or after the reference time are marked with the NEGATIVE.NONPAST circumfix³⁷. The *nara* NEGATIVE particle often occurs adjacent to the predicate (example 3.52), however the two can be interrupted by adjectives, demonstratives, pronominals, adverbials and particles (examples (3.53) and (3.54)). The parts of speech that follow the NEGATIVE particle tend to be the focus of the clause (Stokes n.d.-b: 61).

³⁶ There are two other negative adverbials in Anindilyakwa, *yandha* ‘nothing’ and *ngalya* ‘no EMPHATIC’. See Appendix B for further discussion.

³⁷ Although negated habitual non-past events are expressed through a reduplicated verb stem inflected with an IRREALIS pronominal prefix and NON-PAST TAM suffix (see §9.6.1.2 for further discussion).

3.52) *nara* *yibə-lyang-bərra-ngə=lhangwa* *arəŋka=manja*
 NEG IRR.1>2-head-hit-PST=ABL NEUT.head=LOC
 ‘I didn’t hit you on the head’ [speaker translation]
 (JL, JRB1-044-01, 00:20:54-00:21:06)

3.53) *nara* *n-akəna* *kenə-kwa-Ø* *a-rmdak-akəna*
 NEG 3M-that IRR.3M>2-give-PST NEUT-many-that
angwarnda
 NEUT.money
 ‘He didn’t give you all that money’ [author translation; prompt: ‘He didn't give you
 all that money’]
 (JL, JRB1-044-01, 00:17:59-00:18:04)

3.54) *nara* *ebina* *akwala* *yakwujina* *kuw-ambilya*
 NEG NEUT.this NEUT.some there IRR.NEUT-stay.PST
 ‘[Water covered everything] and that was all’ [source translation]
 (Bible Society in Australia 1992: 2)

Negation in imperatives and interrogatives is expressed in the same manner as in indicative clauses, whereby the NEGATIVE particle *nara* is placed immediately before the verb. Negative imperatives (as with negative non-past indicative clauses) are obligatorily inflected for NEGATIVE.NONPAST circumfixal marking (example 3.55). Negative non-past interrogatives similarly take NEGATIVE.NONPAST circumfixal marking (example 3.56), while negative past interrogatives take IRREALIS + PAST inflectional marking (example 3.59).

3.55) *nara* *a-maku-ma* *akəna* *alhawudhawərra*
 NEG NEG.NPST-tell-NEG.NPST NEUT.that NEUT.story
wurrə-mərndak-eyinə=manja *wurri-yukwayuwa*
 3A-many-this=LOC 3A-child
 ‘Don’t tell that story to these children!’ [source translation]
 (Stokes n.d.-b: 71)

3.56) *nara* *a-lhaka-ngama* *wurr-akana=na?*
 NEG NEG.NPST-go-NEG.NPST 3A-that=TAG
 ‘They aren’t going, are they?’
 (Stokes n.d.-b: 85)

3.57) *nara* *kana-lhake-na* *n-akana?*
 NEG IRR.3M-go-PST 3M-that?
 ‘Didn’t he go?’
 (Stokes n.d.-b: 82)

Negated existential clauses, as with positive existential clauses, are generally verbless. The negative particle occurs preceding the nominal predicate (although as with negated verbal predicates, other parts of speech can occur between the NEGATIVE particle and the predicate) (example 3.58).

3.58) *nara* *ambaka* *ebina* *amarda*
 NEG later NEUT.this NEUT.plant
 ‘There were no plants’ [source translation]
 (Bible Society in Australia 1992: 10)

The other means of non-verbal negation marking is through the use of the =*ma*~=*marra* PRIVATIVE case clitic. As discussed in §3.2.2.3.2, while the =*ma*~=*marra* clitic in isolation can be used to mark a PROPRIETIVE case function, when occurring in combination with the alienable possession prefix, it conveys a privative meaning (indicating dispossession, a lack of, deprivation, etc.) as in example (3.59).

3.59) *akena* *n-enang-arijira=ma* *ngawa* *ni-jungwu-Ø=ma*
 however 3M-M.ALP-child=PRIV continue REAL.3M-die-USP=MUT
en-eja-kwaba *n-akana*
 3m.PRO-CofR-also 3M-that
 ‘But he died too, without having any children’
 (Bible Society in Australia 1992: 822)

3.3 Complex clauses

Both independent and dependent verbs most frequently involve fully inflected finite verbs. However additionally, although less frequently, non-finite verbs can also occur in dependent clauses.

In addition to inflectional TAM marking, dependent verbs generally involve case/spatio-temporal/modal clitics, in both relative clauses and (t-complementising) subordinate clauses. It has been claimed that often there will be limited formal marking of subordinate clause types in polysynthetic languages (cf. Heath 1975; Mithun 1984), with subordination expressed by other means (e.g. through the simple juxtaposition of two clauses). However, in some Gunwinyguan languages in particular, this is not the case, where case markers are often employed to mark subordinate clauses. This is very much true in Anindilyakwa, whose system for marking (t-complementising) subordinate clauses appears to be amongst the most elaborate of the Gunwinyguan family.

While the use of case to indicate temporal/logical relations between a main and subordinate clause is most frequently found with non-finite nominalised verbs in Australian languages, in Anindilyakwa (as with some other eastern Gunwinyguan languages), case clitics attach to fully inflected finite verbs. Core semantic case clitics (e.g. ABLATIVE, ALLATIVE, LOCATIVE) attach to verbs only in relative clauses, or subordinate clauses with a t-complementising function (with the temporal relation expressed being a semantic extension of their spatial case function). However, other spatio-temporal/modal clitics (e.g. PERLATIVE, QUANTIFICATIONAL, PURPOSIVE, EVITATIVE) occur in a wider range of contexts (involving both main and subordinate clauses). This means that it can be very difficult (perhaps impossible?) to distinguish between main and dependent clauses involving fully inflected finite verbs taking spatio-temporal/modal clitics, given that they are structurally identical in either clause. This intricacy is discussed in this section.

Table 3.1 displays the distribution of clitic markers that can occur with finite and non-finite verbs, depending on clause type (main clause, relative clause, t-complementising adverbial subordinate clause, non-finite nominalised verb). These dependent clause types and their interaction with case/spatio-temporal/modal clitics are discussed throughout this section.

	Main Clause	Case marked	T- complementising	Nominalised

		relative clause	adverbial subordinate clause	
ABLATIVE = <i>lhangwa</i>	✓ ^a	✓ ^b	✓ ^c	✓ ^f
ALLATIVE = <i>wa</i>	✗	✓ ^d	✓ ^d	✗
LOCATIVE = <i>manja</i>	✗	✓ ^d	✓ ^e	✗
DENIZEN = <i>kba</i>	✗	✓ ^d	✓ ^d	✗
PROPRIETIVE/PRIVATIVE/ COMITATIVE = <i>ma~mər̄ra</i>	✗	✓ ^d	✗	✗
PERLATIVE = <i>lhangwiya</i>	✓	✓ ^b	✓ ^e	✗
QUANTIFICATIONAL = <i>wiya</i>	✓	✓ ^b	✓ ^e	✗
REASON = <i>baba</i>	✗	✗	✓ ^b	✓
PURPOSIVE = <i>yedha</i>	✓	✗	✓ ^e	✓
EVITATIVE = <i>maka</i>	✓	✗	ʔ ^e	✓

Table 3.1 Possible combinations of clauses types with clitics

- a) only occurs when =*lhangwa* takes ‘about/on the subject of/concerning’ readings;
- b) occurs with obligatory =*ma~mər̄ra* marking³⁸;
- c) occurs with optional =*ma~mər̄ra* marking (although =*ma~mər̄ra* disallowed with intensive readings);
- d) occurs with obligatory =*mər̄ra* marking;
- e) =*ma~mər̄ra* marking disallowed;
- f) only occurs when =*lhangwa* takes intent readings

3.3.1 Non-finite dependent clauses

Nominalised verbs (which take the *-k-* nominaliser prefix) can function as non-finite verbs in dependent clauses (van Egmond 2012: 122-3)³⁹. Nominalised verbs take nominal verbal morphology (e.g. nominal gender/noun class prefixes, and no TAM suffixes; although the verb

³⁸ =*ma ~mər̄ra* occurs as a dependent clause marker in relative and t-complementising adverbial subordinate clauses, although its occurrence and form depends upon the preceding clitic. See §2.5.3 for further discussion.

³⁹ The *-k-* nominaliser prefix is also used very productively to form common nominals, and is found not infrequently in newly coined words (van Egmond 2012: 123). See §2.6.

stem of the nominalised verb can include verbal derivational marking (e.g. REFLEXIVE/RECIPROCAL/INCHOATIVE/FACTITIVE suffixes)).

Non-finite dependent verbs are generally used to express goal, purpose and reason, and consequently often occur with the PURPOSIVE (examples (3.61) and (3.62)) or REASON clitics, but also occur with no clitics attached (example 3.60).

Only modal clitics (the PURPOSIVE, REASON, EVITATIVE (and ABLATIVE, when expressing intentional or causal readings)) can attach to non-finite verbs (i.e. case clitics and spatio-temporal clitics are unable to attach to non-finite verbs). This is in contrast to many other languages, whereby clitics can only attach to non-finite verbs, rather than finite ones (almost the inverse of what we find with Anindilyakwa).

- 3.60) *kəngə-lhəka-ja=ma* *dh-adhə-k-ajarra*
 IRR.3F-go-NPST=MUT 3F-F-NSR-wash
 ‘She is going to wash [it]’
 (Leeding 1989: 419)

- 3.61) *n-embəri-n* *n-akəna* *nenəngkwarba* *nenə-kə-mi=yedha*
 REAL.3M-wait-PST 3M-that 3M.man 3M-NSR-get=PURP
 ‘That man was waiting to get [the thing]’
 (JL, JRB1-029-01, 00.15.52)

- 3.62) *neni-lyangki-yama-Ø* *wun-alh-akəna* *wun-enə-kə-lhəki=yedha*
 REAL.3M.DU-head-say-PST 3M.DU-DU-that 3M.DU-M-NSR-go=PURP
adhalyəmu=wa *wun-enə-kə-ngamba-ji=yedha*
 NEUT.river=ALL 3M.DU-M-NSR-get.wet-CAUS=PURP
 ‘The two of them were thinking to go to the river to swim’
 (Leeding 189: 488)

Finite verbs with the PURPOSIVE and non-finite nominalised verbs with the PURPOSIVE appear to be interchangeable (compare (3.63) and (3.64)). Fine-grained semantic distinctions between the two are not obvious at this stage, and it will be left to further research to examine this more detail.

3.63) *arakba+wiya* *nara+wiya* *wurrə-mangkadhərri=lhangwa*
 COMPL.ACT+QUANT NEG+QUANT 3A-white.person=ABL
angwura, *warnumamalya na-mambə-mam+baji-nə=ma* *miyanga*
 NEUT.fire 3A.people REAL.3A-REDUP-hands+hit-PST=MUT VEG.firesticks
kajungwa ***ka-lhərakə-nə=yedha*** *angwura*
 so.that **IRR.3A-light.fire-PST=PURP** NEUT.fire
 ‘A long time ago before white people brought matches and lighters, our people
 used to rub firesticks to light a fire’
 (CW, fieldnotes, 11/04/2019)

3.64) *arakba+wiya* *nara+wiya* *wurrə-mangkadhərri=lhangwa*
 COMPL.ACT+QUANT NEG+QUANT 3A-white.person=ABL
anwgura, *warnumamalya na-mambə-mam+baji-nə=ma* *miyanga*
 NEUT.fire 3A.people REAL.3A-REDUP-hands+hit-PST=MUT VEG.firesticks
kajungwa ***warnə-kə-lhəraiki=yedha*** *angwura*
 so.that **3A.M-NSR-light.fire=PURP** NEUT.fire
 ‘A long time ago before white people brought matches and lighters, our people
 used to rub firesticks to light a fire’
 (Groote Eylandt Linguistics 1993: 198)

The nominal prefix agrees with the subject with intransitive verbs, and with transitive verbs it can agree with either the subject or the object, depending upon which argument the speaker wishes to emphasise (van Egmond 2012: 125). van Egmond (2012: 125) demonstrates this with the following two examples, in which (3.65) emphasises the object (‘they had caught goanna to be eaten’), while (3.66) emphasises the subject (‘they had caught goanna for eating [by them]’).

3.65) *nen-akbərri-nga* *yaraja* ***yi-nə-kw-alyəbari=yedha***
 REAL.3M>MASC-catch-PST MASC.goanna **MASC-M-NSR-eat=PURP**
 ‘They had caught goanna to eat’ [source translation]
 (van Egmond 2012: 125)

- 3.66) *nen-akbər̄ra-nga* *yaraja* ***warnu-kw-alyəbari=yedha***
 REAL.3M>MASC-catch-PST MASC.goanna **3A.M-NSR-eat=PURP**
wurr-akəna
 3A-that
 ‘They had caught goanna to eat’ [source translation]
 (van Egmond 2012: 125)

3.3.2 *Finite dependent clauses*

While non-finite verbs can be utilised in Anindilyakwa, as demonstrated in §3.3.1, the use of finite verbs (in both independent as well as dependent clauses) is much more salient. As a consequence of this, the identification of independent vs. dependent clauses in the language can be difficult, given that both of these clause types involve fully inflecting finite verbs, that can appear formally identical. This difficulty is examined throughout this section.

There are different types of dependent clauses that can be identified in Anindilyakwa, particularly; relative clauses (cf. Comrie 1981) (§3.3.2.1) and (adjoined) adverbial subordinate clauses (cf. Hale 1976; Dench & Evans 1988) (§3.3.2.2). Negation in dependent clauses is briefly discussed in §3.3.3.

3.3.2.1 *Relative clauses*

Relative clauses are obligatorily marked with the subordinate clause marker =*ma~mər̄ra*, following the [+3] TAM slot of the verbal template (van Egmond 2012: 305), as in examples (3.67) and (3.68).

- 3.67) *yirrə-rrəngka-Ø=ma* *arakba* *ngayuwa* ***nəng-enibə-dhə-Ø=ma***
 REAL.2A-see-PST=MUT COMPL.ACT 1.PRO **REAL.1-alive-INCH-USP=DEP**
amandhangwa *nəngi-jungwu=mər̄ra=dha*
 true REAL.1-die-Ø=MUT=TRM
 ‘Now you have seen that I really am alive again’
 (Bible Society in Australia 1992: 890)

- 3.68) *n-akəna* *n-eniyuwangkwa* *n-ibəna* ***ngəna-kwa-Ø=ma***
 3M-that 3M-old.man 3M-that.same **REAL.1>3M-give-PST=DEP**
enungkwa *kənə-lhawurradhə-na=ma* *Darwin=lhangwa* *arnungkwaya*
 NEUT.spear IRR.3M-return-NPST=MUT Darwin=ABL tomorrow
 ‘The man who gave me the spear will return from Darwin tomorrow’
 (Waddy n.d.-a: 8)

Relative clauses are obligatorily marked with the subordinate clause marker regardless of whether they are verbal clauses (as demonstrated in examples (3.67) and (3.68)), or verbless clauses (i.e. with a nominal predicate), as in example (3.69).

- 3.69) *warnumamalya* *wurr-ibina* *wurr-imimba=mərru=wiya*
 3A.people 3A-that.same 3A-blind=DEP=QUANT
 ‘... people who [were] blind’
 (Waddy 1998: 4)

Given that *=ma~mər̥ra* can occur with different functions in independent clauses⁴⁰, however, relative clauses and independent clauses can appear formally identical. Compare examples (3.70) and (3.71), where in (3.70) the second clause occurs in what appears to be a subordinate function, with the obligatory *=ma~mər̥ra* subordinator marker, but the form of the verb is identical in the independent clause in (3.71), where the *=ma~mər̥ra* marker, instead of marking subordination, is occurring (optionally) in a discourse function (see §2.5). As with independent clauses, the pronominal prefix in relative clauses marks the S and O arguments of the dependent clause, which may be the same, or different, from the matrix clause.

In addition to the *=ma~mər̥ra* subordinator marker in relative clauses, the demonstrative *ebina* ‘this same [one]’ often also co-occurs, taking on the role of a relative pronominal (Waddy 1998: 4), as is also demonstrated in example (3.70).

- 3.70) *Ø-alyəbarə-na* *ena* *anhənga* *ebina*
 DEON.2>NEUT-eat-NPST NEUT.this NEUT.food NEUT.that.same
ngarra-mənə-dhaka-Ø=ma

⁴⁰ See §2.5 for discussion of the various functions of the polyfunctional *=ma~mər̥ra* marker.

REAL.3a-paddle-RECIP-PST=DEP=ABL VEG.canoe
narrə-ma-ngə=ma amanhənga akwa
 REAL.3A>NEUT-take-PST=MUT NEUT.food and
na-mangbi-lyungkwe-nə=ma ayarrka-kiya=manja kembirra
 REAL.3A>NEUT-blunt.shape-rub-PST=MUT NEUT.hand-two=LOC then
na-lyungkwe-nə=ma ebina=manja
 REAL.3A>NEUT-rub-PST=MUT NEUT.that.same=LOC
nuw-arrkwuje-yi-nə=mərrə=manja warnumadhangkwa
 REAL.3A-suffer-RECIP-PST=DEP=LOC 3A.M.body

‘Also when they had a headache or when they were aching from walking a long way or from paddling their canoes, they used to get the fruit and rub it on their hands and then they rubbed it on where they had the pain’

(Groote Eylandt Linguistics 1993: 44)

3.74) *arəma=lhangwa ayakwa ebina*
 NEUT.big=ABL NEUT.language NEUT.that.same
nuw-abuwarrkajungwu-nə=ma=lhangwa
 REAL.NEUT-hide-PST=DEP=ABL

‘About the important word that was hidden’

(Bible Society in Australia 1992: 966)

3.75) *nara ka-rrəngka-Ø wurr-enjarrngalyilya*
 NEG IRR.1>3A-see-PST 3A-boy
nuw-angmadhə-Ø=mərrə=mərra nganyangwa diraka
 REAL.3A>NEUT-steal-USP=DEP=PROP 1.PRO.POSS NEUT.car

‘I didn’t see the boys who stole my car’

(Stokes n.d.-b: 97)

3.76) *nə-rndarrka-Ø enungkwu-mərriya a-mərndak-ibina*
 REAL.3M-take-PST NEUT.spear-the.rest NEUT-many-that.same
nə-ngekburaka-Ø=mərru=wiya
 REAL.3M>NEUT-make-PST=DEP=QUANT

‘He took the spears that he had made’

(Waddy n.d.-a: 8)

Case concord in Anindilyakwa is optional when the modifier and the head are adjacent (whereby usually only the modifier takes the case clitic), but in contexts in which the head and modifier are discontinuous, they both must take the case clitic (van Egmond 2012: 305). In the case of relative clauses, the verbal predicate generally takes the case clitic (with other nominals optionally able to also take the case clitic), as demonstrated in examples (3.72) – (3.76), however case clitics in relative clauses can alternatively attach to the *ebina* ‘this same [one]’ demonstrative, while the verb is still marked with the =*ma*~=*mər*ra subordinator marker (but not the case clitic). Compare, for example, examples (3.73) and (3.77), where in (3.73) the ABLATIVE clitic attaches to the verb in the relative clause, while in (3.77) the ABLATIVE clitic attaches instead to the *ebina* ‘this same [one]’ demonstrative.

- 3.77) *nəngəma-rrəngka-Ø mamarukwa m-ibinə=lhangwa*
 REAL.1>VEG-see-PST VEG.road VEG-that.same=ABL
nə-lhəke-nə=ma
 REAL.3M-go-PST=DEP
 ‘I saw the road from which he came’ [source translation]
 (Waddy n.d.-a: 8)

See Appendix B for further information about the case clitics, or van Egmond (2012, Chapter 8) for a more extensive discussion of case in Anindilyakwa.

3.3.2.2 (*T-complementising*) *adverbial subordinate clauses*

Case clitics, in addition to attaching to finite verbs in relative clauses in order to express similar case functions to that which they express when occurring on nominals (i.e. generally semantic roles concerning spatial expression), can also attach to finite verbs in to serve a different function; to specify a temporal, logical or spatial relationship with another clause (cf. Hale 1976; Dench & Evans 1988). Case marked verbs expressing this T-complementising function (as it is commonly referred in Australianist literature) always occur as dependent clauses, unable to occur independently.

Unlike with relative clauses in Anindilyakwa, which obligatorily take the =*ma*~=*mər*ra subordinator marker, for T-complementising adverbial clauses, this depends upon the clitic in question, with some obligatorily taking the =*ma*~=*mər*ra marker (ALLATIVE, ABLATIVE (except

for intentive readings), DENIZEN, REASON), while others obligatorily reject it (LOCATIVE, PERLATIVE, QUANTIFICATIONAL, PURPOSIVE). See §2.5 for further discussion.

As discussed in the previous section regarding relative clauses, the identification of adverbial subordinate clauses can also be difficult, given that there is no identifiable subordinate morphology present, particularly with those case clitics which do not follow the =*ma* ~ =*mər̥ra* marker. The dependent status of the primary case clitic marked adverbial clauses (ALLATIVE, ABLATIVE, LOCATIVE, DENIZEN) is clear, given that verbs marked with these clitics cannot occur as independent clauses. However, clauses containing verbs marked by other clitics are more difficult to identify, given that these can also occur as independent clauses.

3.3.2.2.1 Temporal relations (involving case clitics)

Verbs in adverbial clauses taking the LOCATIVE, ALLATIVE and ABLATIVE clitics mark temporal relations with the main clause, expressing simultaneity of the two events (in the case of LOCATIVE marked verbs (example 3.78)), or that the adverbial clause occurs before or after the main verb (in the cases of the ALLATIVE (example 3.79) and ABLATIVE clitics (example 3.80)). DENIZEN clitics behave somewhat differently, with the clitic marked clause a complement clause, expressing an indirect interrogative clause, linked to the main clause, as in (3.81). Verbs marked with the LOCATIVE, ALLATIVE, ABLATIVE and DENIZEN clitics can only occur in dependent clauses. These (particularly temporal relations) are examined in detail in §8.1.

- 3.78) *nginə-maka-Ø=ma* *neniyarringka* *nungw-arrka*
 REAL.3M>1-tell-PST=MUT 3M.respected.old.man 3M.father-KIN.1
yirr-ambilyu=manja *Yingakumanje=ka* *ena*
 REAL.1A-stay.PST=LOC place.name=EMPH NEUT.this
alhawudhawər̥ra
 NEUT.story
 ‘My old father told me this story when we were staying at Yingakumanja’
 (GL, A3369a Side1, a3.5 Dingarna-langwa akwa wurruwarda-langwa ‘Snake
 and a dog’)

- 3.79) *yi-maka-Ø=ma* *kuw-arrangbije-yi-na=mu=lhangwa*
 REAL.2>1-tell-PST=MUT IRR.3A-produce-RECIP-NPST=DEP=POSS
abər̥ra=lhangwa *wurri-yukwayuwa*

3a.PRO=POSS 3A-small
kuw-ababərna-dhə-na=mərru=wa wurr-akəna

IRR.3A-many-INCH-NPST=DEP=ALL 3a-that

‘You told me that their children would go on having children until there are very many of them’

(Bible Society in Australia 1992: 265)

3.80) *ka-je-na=ma=lhangwa* *anhəŋga*

IRR.3A>NEUT-eat-NPST=DEP=ABL NEUT.food

karri-ngiyendhe-na=ma *alhawudhawərɾa*

IRR.3A>NEUT-want-NPST=MUT NEUT.story

‘After they have eaten they will want a story’

(Stokes n.d.-b: 116)

3.81) *Ø-andhi-ya* *angerriba* *ka-ngwurrkbalhə-Ø=mərrə=kba*

DEON.2-look-POT to.over.there IRR.NEUT-open-USP=DEP=DENIZ

‘Look over there and see if the shop is open’

(Stokes n.d.-b: 119)

3.3.2.2.2 Intentionality and cause

Intentionality is most commonly expressed via the PURPOSIVE clitic. While PURPOSIVE marked verbs can occur in dependent clauses (examples (3.82) and (3.83)), like the case clitics outlined in §3.3.2.2.1, PURPOSIVE marked clauses can also occur in independent clauses. Intentionality involving PURPOSIVE clitics is examined in detail in §10.2.1.

3.82) *yi-lhəka-ja* *arakba* *nganyangwu=wa* *angalya*

DEON.12-go-NPST COMPL.ACT 1.PRO.POSS=ALL NEUT.place

anhəŋgi=yedha

NEUT.food=PURP

‘Let us go to my house and eat’ [i.e. ‘Let’s go to my house for food’]

(Bible Society in Australia 1992: 677)

- 3.83) *kembirra Ø-yengbi-na yakə-lhəka-ji=yedha arakba*
 then DEON.2-speak-NPST IRR.12-go-NPST=**PURP** COMPL.ACT
yingi-yama-Ø
 REAL.3F-say-PST
 ‘‘Then speak up [big sister] so that we can go now’’ she said’
 (AA, A3369a Side2, a3.11 Yingarna-langwa ‘Story about a snake’)

In addition to the **PURPOSIVE**, the =*lhangwa* clitic can be used to express intent, as in (3.84), and the particle *kajungwa* ‘so that’ often occurs in dependent clauses expressing purpose or intent (often co-occurring with either the =*yedha* or =*lhangwa* clitics, as in example (3.85)).

- 3.84) *m-eningaba mabalba kayuwu=lhangwa*
 VEG-good VEG.mabalba NEUT.dilly.bag=**ABL**
 ‘Mabalba is good for making dilly bags’
 (Stokes n.d.-b: 12)

- 3.85) *enəng-erribirra=ka warka yik-akburrangə-na=ma*
 NEUT.M.ALP-anyhow=**EMPH** NEUT.work IRR.2A>NEUT-find-NPST=**MUT**
kirr-akəna kajungwa yikə-me-ni=yedha anhənga-mərriya
 2A-that **so.that** REAL.2A>NEUT-take-NPST=**PURP** NEUT.food-the.rest
 ‘You can find any kind of work you like so that you can get food’
 (Bible Society in Australia 1992: 278)

Causal relations are often expressed using the =*baba* **REASON** clitic (as in example (3.86)), although the =*lhangwa* clitic can also be used to express causation (example (3.87)).

- 3.86) *kəngə-lhalhəkə-na=ma nungkwurruwa=manja*
 IRR.1>3F-leave-NPST=**MUT** 2A.PRO=**LOC**
kə-lhəka-ja=mərrə=baba akwalyu=wa
 IRR.1-go-NPST=**DEP**=**REAS** NEUT.fish=**ALL**
 ‘I’ll leave her with you because I’m going fishing’
 (Stokes n.d.-b: 123)

- 3.87) *na-rrangkuwangə-na=ma* *ayarrka* *dhəmərmarra*
 REAL.NEUT-swell-NPST=MUT NEUT.hand FEM.sandfly
ng-anga-Ø=mərrə=lhangwa
 REAL.FEM>1-bite-PST=DEP=ABL
 ‘My hand is swelling up because the sandflies bit me’
 (Stokes n.d.-b: 117)

3.3.2.2.3 Apprehension

The EVITATIVE clitic =*maka* is used primarily to express apprehensional-epistemic meanings (cf. Lichtenberk 1995), associated with describing undesirable situations that have the potential to take place in the future. The =*maka* EVITATIVE clitic is not restricted to occurring in subordinate clauses, and indeed whether =*maka* marked clauses occur as subordinate clauses at all, rather than a simple sequence of clauses where proximity between the clauses indicates a purposive link, is difficult (impossible?) to ascertain, given that there is no formal means with which to distinguish a potential independent vs. dependent apprehensive clause (e.g. ‘do *P*, in order that *Q* doesn’t happen’ vs. ‘do *P*, maybe *Q* won’t happen’).

- 3.88) *nara* *nəngk-ena* *a-lhalhəka-ma* *akəna*
 NEG 2-this NEG.NPST-leave-NEG.NPST NEUT.that
anhənga *məna* *wurruwarda* *kuw-alyba-rna=maka*
 NEUT.food because COLL.dog IRR.COLL-eat-NPST=EVIT
 ‘Don’t leave that food, or the dog might eat it’ (JL, notes 29/06/2017)
 [Prompt: ‘Don’t leave the food here, the dogs might steal it’]
 (JL, JRB1-044-01, 00:24:55-00:25:05)

- 3.89) *yama!* *mema* *malharra* *kəmə-ngkə+lharrə-Ø=maka*
 watch.out VEG.this VEG.stone IRR.VEG-fall-USP=EVIT
 ‘Watch out! This stone might fall!’ [author translation]
 (JL, JRB1-044-01, 00:23:24-00:23:31)

3.3.2.3 Serial verb-like constructions

Anindilyakwa does not appear to demonstrate true serial verb constructions, however it does display some coordinated clauses that appear to occur in serial verb like constructions, particularly those involved in associated posture and associated motion constructions. These are discussed, respectively, in §§3.3.2.3.1-3.3.2.3.2.

3.3.2.3.1 Coordinated clauses and associated posture constructions

Associated posture constructions occur in coordinated clauses with no formal marking; the two clauses are simply juxtaposed, as in examples (3.90) and (3.91).

- 3.90) *abərr-aja wurru-wurrə-kwulyumədha warnumamalya*
 3A.PRO-CofR 3A-many-all 3A.people
nuw-alkilk-aya-ngə=ma yakwujina
 REAL.3A-long.and.thin(?)-stand-PST=MUT there
nenə-rrəbə-rrəngka-Ø=mərra Jesus=uwa
 REAL.3M>3M-REDUP(?)-look-PST=MUT Jesus=ALL
 ‘The people stood there watching Jesus’
 (Bible Society in Australia 1992: 874)

- 3.91) *nu-kuw-arjeyu=ma n-akwukawura ngəwa,*
 REAL.3M-fluid/body(?)-stand.PST=MUT 3M-alone continue
nə-buriya-mə-nə=ma
 REAL.3A-pray-TRVSR-PST=MUT
 ‘[He] stood by himself praying’
 (Bible Society in Australia 1992: 783)

Alternatively, the *akwa* conjunction can be used in similar constructions, as in (3.92).

- 3.92) *nuw-arjeyu=ma wurr-akəna akwa nə-buriya-mə-nə=ma*
 REAL.3A-stand.PST=MUT 3A-that and REAL.3A-pray-TRVSR-PST=MUT
N-enəngə-karrawaru=wa yakwujina
 3M-M.ALP-above=ALL there

‘[They] stood outside praying to God’ [source translation]
 (Bible Society in Australia 1992: 465)

3.3.2.3.2 *Coordinated clauses and associated motion constructions*

These kinds of coordinated clauses appear to occur in serial verb like constructions, whereby the first verb in a sequence takes overt inflectional TAM marking, while the second can take a phonologically \emptyset form in the [+3] slot of the verb template (but following the aspectuo-temporal semantics of the first verb of the sequence, rather than the aspectuo-temporal readings that are associated with phonologically \emptyset marked verbs in independent clauses (see Chapter 6)). This can be in the form of juxtaposed verbs (as in (3.93) and (3.94)), or verbs conjoined with the *akwa* conjunction (as in (3.95)). This doesn’t appear to follow most definitions of true serial verb constructions, given that intervening material between the verbs can occur (i.e. the *akwa* conjunction), however other aspects of these constructions appear to be similar to that of serial verb constructions.

\emptyset TAM marking is overviewed in §2.4 and examined in detail in the context of inflection temporal and aspectual marking in Chapter 6.

- 3.93) *n-akəna kən-angkarrə-nə=manja*
 3M-that IRR.3M-run-PST=LOC
kən-rukwu-lyaka-ja- \emptyset =manja *akən alhəkəra*
 IRR.3M>NEUT-foot-go.around-CAUS-AM=LOC NEUT.that NEUT.house
yirruwa yikənə-ngwanja-ja- \emptyset =maka
 1A.PRO IRR.1A>3M-stop-CAUS-USP=EVIT
 ‘If he had been running when we arrived, we would have made him stop’ [author translation; Prompt: ‘If he had been running around the house when we came, we would have made him stop’]
 (JL, JRB1-042-01, 00:35:04-00:35:13)

- 3.94) *yirra-rrbə-rrəngka- \emptyset =ma* *na-yan-jamarrka- \emptyset =ma*
 REAL.1A>3A-REDUP-see-PST=MUT REAL.3A-REDUP-how.to.do-PST=MUT
yakwujina adhalyəma=manja narrəma-mərndak-ajirra-ngə=ma
 there NEUT.river=LOC REAL.3A>VEG-many-wash-PST=MUT

dhəmbalha-mərriya *narrəma-mərndak-ara-rurrmaja-Ø=ma*
 VEG.clothes-the.rest REAL.3A>VEG-many-REDUP-dry-AM=MUT
karrawara *amarda-mərriya=manja*
 above NEUT.grass-the.rest=LOC

‘We used to watch older women at the river wash their clothes and dry [them] on dry grasses’ [speaker translation]
 (JL, JRB1-007-01, 00.00.56-00.01.09)

3.95) *yarrungkwa* *nu-wilyaba* *nenəngkwarba* *nə-murrkulə=ma*
 yesterday 3M-one 3M.man REAL.3M-lie.down.PST=MUT
enə=lhəng=ma *murrkwa* *akwa nə-rukwi+lyakaja-Ø=ma*
 3M.PRO=POSS=INST VEG.stomach and REAL.3M-stir-AM=MUT
anhənga *en-aja* *nu-wilyaba* *nenəngkwarba* *nə-lhəke-na*
 NEUT.food 3M.PRO-CofR 3M-one 3M.man REAL.3M-go-PST
akwa *nə-kwa+bijangu-nə=ma*
 and REAL.3M-jump-PST=MUT

‘Yesterday one man was lying on his stomach, stirring the food, [and] another man went past and jumped’ [author translation]
 (CW, JRB1-032-01, 00.21.23-00.22.05)

3.3.3 Negation in dependent and/or clitic-marked clauses

While we have seen that in complex clauses clitics can attach to the verbal complex, in negated clauses the clitic attaches instead to the *nara* NEGATIVE adverbial, rather than the verb, as in example (3.96).

3.96) *n-aka* *nara=manja* *kənə-lhəka-rna* *yakujungwa*
 3M-this NEG=LOC IRR.3M-go-PST there
ak-angməkaya-ng=dha
 IRR.12A-sit.together-PST=TRM

‘If he hadn’t come, they would have sat there together’ [author translation; Prompt:
 ‘If he hadn’t come, they would have sat there’]
 (JL, JRB1-044-01, 00:26:49-00:26:55)

The only circumstance recorded where this does not occur is with ABLATIVE marked clauses, expressing intent, as in examples (3.97) and (3.98).

3.97) *nara=ka yik-akbarranga-rnə=hangwa angalya*
 NEG=EMPH IRR.1A> NEUT-find-PST=ABL NEUT.place
 ‘We hadn’t reached the place yet’ [source translation]
 (Stokes n.d.-b: 76)

3.98) *nara ambaka kuw-alyəbarə-nə=hangwa anhənga*
 NEG later IRR.3A> NEUT-eat-PST=ABL NEUT.food
 ‘They hadn’t eaten yet’ [source translation]
 (Stokes n.d.-b: 76)

3.4 Sentential mood types

Sentential mood refers to sentence types and concerns direct illocutionary acts. The contribution of mood to sentence meaning should be distinguished from the illocutionary force with which the sentence is uttered, whereby the force is a speech act, while the mood is a grammatical property of the sentence (Nikolaeva 2016: 74). While nearly any illocutionary act might be performed indirectly, there are conventionalised connections between mood types and the typical illocutionary force it conveys: declaratives are prototypical assertions, imperatives prototypical directives, and interrogatives prototypical questions (Nikolaeva 2016: 74).

Declaratives

Declaratives are used in order to indicate that the speaker is making a statement that they believe to be true (Palmer 1986: 26). Declarative sentential mood is generally involved in expressing assertive speech acts. Declaratives in Anindilyakwa generally involve REALIS-V-PST/NPST/Ø inflectional marking of the verbal predicate. See, particularly, Chapter 6.

Interrogatives

Interrogatives are a complex domain, and lie outside the scope of this thesis. Very broadly, interrogatives are used to denote questions, which (*à la* Searle (1969)) are complex speech acts. In Anindilyakwa, interrogatives are generally indicated through intonational contours. Interrogatives receive slightly downward falling intonation throughout the utterance, but with a sharp upward intonational contour utterance-finally. In addition to intonation, interrogatives often involve interrogative demonstratives (see Appendix A.3). Tag particles and clitics (*jerriya*, =*na*) are used in affirmative-biased questions, used to confirm an assumption held by the speaker as true (see Appendix B.3).

Imperatives

Imperatives are used to convey directive force. Directive illocutionary force most frequently involves DEONTIC-V-NPST/Ø/POT inflectional marking of the verbal predicate, however can also involve IRREALIS-V-NPST/Ø/POT inflectional marking. See §§9.4–9.5 for further discussion.

3.5 Summary

Anindilyakwa, being a head-marking language with pragmatically determined word order (i.e. expressing the core arguments on the verb alone, thus having non-obligatory free nominals), delineating exactly what constitutes a clause can be difficult to ascertain. However, intonation is one means that is often cross-linguistically used to delineate clausal units, and which can assist in identifying clausal units in Anindilyakwa. In this respect, intonation units can be seen to correspond to basic units of information in spoken discourse (and thus can be taken as the basis of clausal units) (cf. Schulze-Berndt 2000).

In examining Anindilyakwa clauses, we can make a first distinction between simple, independent clauses, and dependent clauses (i.e. involved in complex clause structures, and obligatorily occurring with an independent clause). Both independent and dependent verbs generally involve fully inflected finite verbs, however dependent clauses (albeit less frequently) can involve non-finite verbs.

Simple, independent clauses can be verbal clauses (i.e. they must contain a finite verb) or verbless clauses (which occur without a verbal predicate). In verbal clauses, the head

marking of the verb is governed by valency properties of the verb. Valency determines the arguments a verb can cross-reference: a primary distinction is made between monovalent verbs (i.e. taking only a single subject (S) argument), bivalent verbs (i.e. taking subject (S) and direct object (DO) argument), and trivalent verbs (i.e. taking three arguments (subject (S), direct object (DO) and indirect object (IO))). Monovalent and bivalent verbs mark the S (and DO in the case of bivalent verbs) through pronominal prefix marking on the verb. For trivalent verbs however, given that verbs can cross-reference only up to two arguments through pronominal prefix marking, the DO is left unexpressed from the head of the verb, and rather occurs as a free nominal. There are additionally some semi-transitive verbs which are intermediary between fully intransitive and fully transitive verbs, where the direct object argument is not cross-referenced on the verb, but rather expressed as an overt nominal; and cognate object verbs, which are morphologically intransitive verbs, but which may take an unregistered argument. The BENEFACTIVE applicative derivational prefix is used to add an extra argument to the verb.

There are a number of constructions that do not generally occur with a verbal predicate, which include existential, equative, and ascriptive clauses (which may involve possessives, ‘having’ predicates, and comparatives), as well as clauses expressing cognitive states (generally expressed via adjectival predicates rather than verbs), and teleological modality.

Dependent clauses in Anindilyakwa include finite dependent clauses (relative clauses and subordinate adverbial clauses), and (less frequently occurring) non-finite dependent clauses (whereby a nominalised verbs function as non-finite verb in a dependent clause).

Given that finite verbs can occur both in independent and dependent clauses, the identification of independent vs. dependent clauses in the language can be difficult (since both of these clause types involve fully inflecting finite verbs, which thus can appear formally identical).

Relative clauses are obligatorily marked with the subordinate clause marker =*ma~mər*, following the [+3] TAM slot of the verbal template. Often case clitics attach to relative clauses, in order to express the same meanings as they express when attached to nominals (generally semantic roles expressing spatial meaning).

In addition to attaching to finite verbs in relative clauses, case clitics can also attach to finite verbs in to serve a different function; to specify a temporal, logical or spatial relationship with another clause (cf. Hale 1976; Dench & Evans 1988). This results in t-complementising adverbial subordinate clauses (as it is commonly referred in Australianist literature). Unlike with relative clauses in Anindilyakwa, which obligatorily take the =*ma~mər* subordinator

marker, for t-complementising adverbial clauses, this depends upon the clitic in question, with some obligatorily taking the =*ma*~=*mər*ra marker, while others obligatorily reject it.

Part II

Aspectuo-temporality

Chapter 4

Aktionsart/event structure aspect

In addition to complex inflectional means of aspectuo-temporal expression (discussed in Chapter 6), intrinsic temporal properties of the verb are integral to the system of aspectual expression in Anindilyakwa. This is not surprising, given that cross-linguistically Aktionsart/event structure aspect intersects with ‘grammatical aspect, tense, adverbial modification, the syntax and semantics of quantification and various expressions of quantity, argument structure and linking at the lexical semantics-syntax interface’ (Filip 2012: 721).

In considering TAM expression in Anindilyakwa, the intersection between lexical properties of the verb (i.e. Aktionsart/event structure aspect/actionality) and the system of inflectional marking of the verb is particularly salient, necessitating a detailed examination of the contribution of Aktionsart/event structure aspect. This is particularly relevant to Anindilyakwa given that it is a language whose inflectional system demonstrates a high degree of aspectuo-temporal underspecification, meaning that Aktionsart/event structure aspect properties (as well as discourse and contextual factors) often play an important role in distinguishing between different aspectuo-temporal readings.

This chapter is structured as follows: §4.1 provides a brief outline of the terminology and approach to aspect that I follow. The rest of the chapter (§§4.2-4.4) focuses on Aktionsart/event structure aspect. §4.2 provides an overview and a brief history of research within the domain of Aktionsart/event structure aspect, with the influential work of Vendler (1957) overviewed in §4.2.1, important Aktionsart parameters in §4.2.2, cross-linguistic perspectives relating to Aktionsart/event structure aspect in §4.2.3, and stage and scalar

structure in §4.2.4. §4.3 redirects the focus back to Anindilyakwa, considering how language-specific Aktionsart/event structure aspect features are established in this language, considering the use of Vendler-style tests and morpho-syntactic properties. §4.4 provides a summary of the chapter.

4.1 Aspect, following a two-component approach (*à la* Smith 1997 [1991])

I follow a bidimensional approach to aspect, whereby the general term of ‘aspect’ is taken to differentiate between two notions⁴¹. The first is the grammatical marking of the speaker’s perspective of the event (typically expressed through inflectional tense-aspect forms), which denotes how much of the event is made visible (e.g. the whole event, or only a subpart of an event). This has been variously labelled ‘viewpoint aspect’, ‘aspect proper’, ‘viewpoint’ and ‘perspective point’ (amongst other terms) in the literature (cf. Sasse 2002). I use the term ‘viewpoint aspect’ throughout this thesis. The second refers to the internal aspectual properties of situations⁴² (typically determined by the disambiguated, contextualised semantics of the verbal complex (Caudal 2012: 272)), which has been referred to by many terms in the literature including ‘Aktionsart’, ‘action’, ‘actionality’ ‘aspectual character’, and ‘event structure’ (amongst others). I use the terms ‘Aktionsart’ and ‘event structure aspect’ to refer to this. Thus, in assuming a re-juggling of Smith’s (1997 [1991]) two-component theory of aspect, I distinguish between viewpoint aspect and Aktionsart/event structure aspect.

A viewpoint-based approach to grammatical aspect (i.e. treating the grammatical marking of the speaker’s perspective of the situation as a device focussing on some subpart of the situation/ some particular ‘perspective’ of the situation) such as this, contrasts with a second approach that has also featured in the literature, which assumes a coercion-based approach to grammatical aspect (cf. Moens & Steedman 1988; de Swart 1998). Such coercion-based approaches assume tense morphemes as being aspectual coercion operators (e.g. Moens & Steedman (1988) argues that English tenses contribute aspectual coercion operators, capable of imposing different sets of constraints both on their input and output events, causing two coercions) (Caudal & Roussarie 2000: 363). Rather than following this line of thought, of

⁴¹ Alternatively, there are unidimensional approaches to aspect, which follow the assumption that there is just one conceptual dimension to aspect, in which aspectual phenomena from all representational levels can be observed and analysed (i.e. making no explicit distinction between viewpoint aspect and Aktionsart/event structure aspect).

⁴² I follow Smith (1997 [1991]) using the term ‘situation’ to refer to all eventuality types (i.e. displaying any Aktionsart/event structure aspect properties), and ‘event’ to apply only to those with dynamic properties (i.e. not statives).

tenses as pure aspectual coercion operators, I instead assume, following a viewpoint-based approach to grammatical aspect, that tense morphemes can involve an aspectual contribution consisting in aspectual viewpoint operators, which are sometimes capable of coercing their input categories (Caudal & Roussarie 2000: 363) (cf. Caudal 2005).

I discuss viewpoint aspect in detail in §6.1.3. The rest of this chapter focusses on Aktionsart/event structure aspect. For a comprehensive summary and review of different approaches to aspect over the last half century, see Sasse (2002).

4.2 Overview and brief history of Aktionsart/event structure aspect

It is necessary to examine those aspectual qualities inherent to the verbal complex (alongside their combination with inflectional aspectual markers used to express viewpoint aspect) (Dowty 1979) in order to understand systems of aspectual expression more broadly; one ‘cannot fully understand what grammatical aspect does to verbs’ without a comprehensive understanding of the underlying intrinsic aspectual properties of the verbal complex (Givón 2001: 287).

The differentiation between Aktionsart/event structure aspect and viewpoint aspect has long been discussed in philosophic and linguistic literature, however its place in modern lexical semantics draws principally from the work of the philosopher Zeno Vendler (1957). Since Vendler, Aktionsart/event structure aspect has become a central topic within modern lexical semantic research (Beavers 2013: 681).

In examining Aktionsart/event structure aspect, we are concerned with the internal aspectual properties of the verbal complex (i.e. the verb and its arguments; the verb as interpreted in combination with complements, adjuncts and modifiers). While Vendler did not state this explicitly, and it has sometimes been assumed that the domain under examination is the verb (thus Aktionsart being a classification of verbs themselves), Verkuyl (1972) and Dowty (1972, 1979) (and much subsequent literature) have made clear that Aktionsart/event structure aspect should be understood not as a lexical parameter, but a structural one, involving sentence meaning: the verbal complex/constellation – comprising of the verb, its arguments, adjuncts and modifiers – all of which play a role in determining Aktionsart/event structure aspect properties (Moens 1987: 59-60).

4.2.1 Vendler Aktionsart classes

The identification of Aktionsart/event structure aspect properties has long been used to classify situations. Aristotle distinguished between static and dynamic situations, and in more recent times, telicity and durational properties⁴³ have been used as features with which to classify together different types of situations (Smith 1996: 228). This was the focus of Vendler's seminal (1957) article, proposing that clusters of syntactic properties can be used to characterise different situation types (i.e. general semantic categories that represent classes of idealised situations, that are organised according to their semantic temporal properties (such as telicity, durativity, dynamism)) (Smith 1996: 228).

Vendler (1957) has been hugely influential in subsequent work in the domain of Aktionsart/event structure aspect. Vendler proposed four Aktionsart classes; States, Activities, Achievements and Accomplishments. These four classes, along with a subsequent fifth class, semelfactives (cf. Comrie 1976), have consequently played an important role in the lexical semantic literature. These five classes and the intrinsic temporal properties by which they are differentiated, are displayed in Table 4.1.

	Telic	Durative	Dynamic
State	-	+	-
Activity	-	+	+
Accomplishment	+	+	+
Achievement	+	-	+
Semelfactive	-	-	+

Table 4.1 Properties distinguishing Aktionsart classes (Smith 1997: 20)

While Vendler's Aktionsart classes have been very influential in research on Aktionsart/event structure aspect, the temporal distinctions and diagnostics for these distinctions are heavily based on English data. Basing assumptions on one or a small-subset of languages as default is obviously problematic, and thus it is imperative that Aktionsart/event structure aspect parameters are established separately for each language, using language-specific means (Smith

⁴³ Properties including dynamics, telicity, durativity and atomicity are defined and discussed in §4.2.2.

1996: 228). Tatevosov (2002) provides an in-depth discussion about methods for cross-linguistic approaches to examining Aktionsart/event structure aspect.

Moreover, in more recent work in the domain of Aktionsart/event structure aspect, further proposals for distinguishing Aktionsart parameters have been made, taking into account situations that don't neatly fit the Vendler system, particularly events involving scalarity (including e.g. gradual changes of state (i.e. degree achievements *à la* Dowty 1979)) (cf. Caudal 2005; Kennedy & McNaly 1999, 2005).

Thus, taking into account this more recent literature, I overview the key Aktionsart properties that inform my research in §4.2.2, before considering cross-linguistic perspectives to Aktionsart in §4.2.3, and the relation between Aktionsart and stage and scalar structure in §4.2.4. I then use this literature to inform discussion of the Aktionsart properties in Anindilyakwa in §4.3.

4.2.2 Aktionsart/event structure aspect properties

I assume that the core temporal properties concerning Aktionsart/event structure aspect involve the notions of dynamicity (i.e. the quality of a situation which determines whether it is perceived as being static or dynamic) (§4.2.2.1), telicity (i.e. an indication of an inherent endpoint to a situation) (§4.2.2.2), and atomicity (i.e. whether an event can be split up into intermediary degrees, or involves only a one-step change of state) (§4.2.2.4). In the context of telicity and atomicity, I also discuss the related, but distinct, notion of durativity (relating to the duration of the situation) in §4.2.2.3.

4.2.2.1 Dynamism

Dynamism is the quality determining whether a situation is static or dynamic. Statives consist of a single, undifferentiated period, which entails no change. Statives differ from unbounded dynamic events (i.e. activities), in that dynamic events like activities involve some agent or controller of the event predicate (including implicit controllers, such as natural force), while statives do not. Unless there is some disturbance or some event occurs, statives have the capacity to continue indefinitely, without effort (Comrie 1976). Statives do not have a culmination point or a preparatory phrase leading to a culmination point (Mucha 2015: 29).

In English, we could say that a state holds/obtains, while an event occurs/happens/takes place (Smith 1997: 19). Examples of statives in English include verbs such as ‘to be’ and ‘to know’, while dynamic events include verbs such as ‘to walk’, ‘to talk’ and ‘to arrive’.

In examining stative situations, we can distinguish between stage-level and individual-level statives (Carlson 1977; 1980). Stage-level statives are associated with expressing temporary or accidental properties (such as ‘to be hungry’ or ‘to be nervous’), while individual-level statives are associated with permanent or inherent properties (more-or-less) (such as ‘to be handsome’ or ‘to be Australian’). See §5.1 for further discussion.

4.2.2.2 *Telicity*

Telicity is concerned, in general terms, with the presence or absence of some endpoint or limit. We label a situation that includes a resultant completion point as telic, and one without such a limit as atelic.

The notion of completion is key in telic situations (Smith 1997: 43), with telic situations possessing a “natural finishing point beyond which the same event cannot continue, because it is finished” (Kearns 2000: 202). Thus, telic situations include predicates that encompass the final endpoint in their inherent meaning. Examples from English include verbs such as ‘to finish’, ‘to arrive’ and ‘to fill up’. Example (4.1) provides an example of a telic (dynamic, non-atomic, durative) situation in English.

- 4.1) ‘Mary walked to school in an hour’
 (Smith 1997: 43)

In contrast, atelic situations do not have an intrinsic endpoint or termination point specified. Rather, their endpoints are arbitrary, and the situations can continue indefinitely (Kearns 2000: 202). Examples from English include stative verbs like ‘to believe’ and ‘to know’ and dynamic verbs such as ‘to swim’ or ‘to sit’. Example (4.2) provides an example of an atelic (dynamic, non-atomic, durative) situation in English.

- 4.2) ‘Mary walked in the park for an hour’
 (Smith 1997: 43)

A notion related to, but distinct from, telicity is boundedness. While telicity relates to an inherent or natural endpoint or limit, beyond which the situation cannot continue (e.g. ‘the man ate the sandwich’; ‘John died’), boundedness relates to whether a situation is described as having reached a temporal boundary or not, irrespective of whether the situation has an inherent endpoint (Depraetere 1995: 2-3). Conversely, a situation is unbounded if it has not reached a temporal boundary (e.g. ‘Jeremy lives in Perth’; ‘Susan is writing a story’) (Depraetere 1995: 3). The distinction between telicity and boundedness is relevant to topics of discussion in this and following chapters (see particularly (§6.5.3).

The concept of telicity (telic vs. atelic), is related to other aspectually relevant concepts: change of state (§4.1.2.1), durativity/temporal extent (§4.1.2.3) and atomicity (§4.2.1.4).

4.2.2.3 *Durativity/temporal extent*

Durativity or temporal extent is a temporal concept, concerned with temporal measurement. It distinguishes between situations that occur (or have the potential to occur) with some temporal extent (example (4.3)), from those that are conceptualised as momentaneous transitions from one state of affairs to another (example (4.4)) (Filip 2012: 727).

4.3) John climbed the mountain

4.4) John reached the peak of the mountain

Examples of durative situations in English include ‘to sing’, ‘to walk’, ‘to build a castle’, and non-durative situations include ‘to reach’, ‘to find’, ‘to die’.

4.2.2.4 *Atomicity*

Atomic events involve a holistic, one-step change-of-state, comprising only two degrees (a minimal and a maximal one, being devoid of proper subparts (i.e. the minimum number of points in time needed in order that a change of state occurs)) that cannot be interrupted then resumed (although remain capable of forming complex degree structures (i.e. scales)) (e.g. ‘the man died’, ‘the bomb exploded’), while non-atomic situations involve a complex change-of-state, and possess intermediary degrees between the minimal and the maximal degree (Caudal & Nicolas 2005: 2). (Non-)atomicity interacts closely with the notion of incrementality (i.e. a

property of verbs whose development can be mapped onto the internal structure of one of their arguments, as in Dowty 1991) (Caudal 1999: 3). Tests for atomicity in English include the ability to occur with ‘finish’, the present progressive, and degree adverbials (such as ‘completely’) (Caudal 2005: 104) (see §4.2.4.2 for further discussion of scalarity).

While atomic events are generally non-durative, and non-atomic situations generally durative, this is not always necessarily the case. Atomic events can be durative (as in example (4.5)), and non-atomic events can be instantaneous (as in example (4.6)).

4.5) The supernova exploded (atomic, non-instantaneous)

4.6) John crushed the seed (non-atomic, instantaneous)

Indeed, the notion of punctuality can be understood as being the combination of two of these distinct notions: non-durativity and atomicity (Caudal 1999).

4.2.3 Aktionsart/event structure aspect cross-linguistically

A widespread, often tacit, assumption is that the parameters and notions on which Vendler’s classes are established are logically universal (i.e. are not subject to cross-linguistic variation) (Tatevosov 2002: 322). A consequence of this has been that many linguists have worked under the assumption that Vendler’s Aktionsart classification as established for English is transferrable (perhaps with minor modifications) to every language (Tatevosov 2002: 322), as demonstrated by many cross-linguistic studies involving aspect (e.g. Heinämäki (1994), Andersen (1994), Svantesson (1994), Refsing (1994), Bergsland (1994) and Vonen (1994)) (Tatevosov 2002: 322).

Contrary to this, it is evident that languages differ in terms of their distributional properties associated with Aktionsart/event structure aspect (e.g. although the English verb ‘to reach’ might be inherently telic and atomic, it cannot be assumed that one can transfer this property to a roughly translatable verb of another language (e.g. *-akburrangə-* ‘reach’ in Anindilyakwa, for instance)). Rather, it is necessary to establish language-specific means of identifying and classifying Aktionsart/event structure aspect properties, in order that they aren’t established on the basis of language-specific (particularly English) biases. It is a dangerous assumption indeed “that a verb or verb phrase has the same actional [=Aktionsart/event structure aspect] character as its closest English counterpart” (Ebert 1995: 186, cited in

Tatevosov 2002: 322), and thus it is essential that we recognise that a situation expressed in the one language may be “represented in different perspectives and with different degrees of focus on [that]... situation at the time of speech” (Johanson 1999: 183). This is especially pertinent when working through an English medium, where it is necessary to identify the “potential for ambiguity in translating aspectual forms into English” (Mailhammer 2009: 366).

Of course, it is not a trivial task to identify language-specific Aktionsart/event structure aspect parameters in a given language. While many well-established Vendler Aktionsart tests work well for English, it cannot be assumed that these tests are applicable for other languages, due to language-specific properties, and even tests that appear to work must be approached with caution, in order to confirm that they are accessing the same aspectually relevant properties in the non-English language (Filip 2012: 724). It is therefore crucial that researchers are clear about the diagnostic tests they use in order to establish language-specific Aktionsart/event structure aspect properties, and that the cross-linguistic application of such diagnostic tests aren't taken for granted (Filip 2012, Sasse 2002).

Despite these complexities, acknowledgement and examination of cross-linguistic variation with respect to Aktionsart/event structure aspect has been the subject of various studies (Tatevosov 2002: 323). Notable works include that of Smith (1991 [1997]), who, in addition to the more widely studied languages of English, French and Russian, considers Aktionsart/event structure aspect in Mandarin Chinese and Navajo, and particularly considers Aktionsart/event structure aspect in Navajo in detail in Smith (1996). Tatevosov (2002) provides probably the most extensive investigation to date examining cross-linguistic variation relating to Aktionsart/event structure aspect.

4.2.4 *Situation structure*

Before examining Aktionsart/event structure aspect properties in detail in Anindilyakwa, I first consider here how these properties are related to two levels of granularity with which situations are structured; i) stage structure (concerned with how situations are decomposed into distinct stages (subevents)), and ii) scalar structures (concerned with degree scales along which a situation develops (i.e. metrical and mereological properties)).

4.2.4.1 Stage structure

I assume (following Caudal & Roussarie 2000; Caudal 2005; 2006) that aspectual properties of each (disambiguated, contextualised) verbal complex occur in a stage structure, whereby situations are decomposed into distinct stages (or subevents) (i.e. situations are not necessarily associated with only one event descriptor, but rather with a more complex structure concerning several distinct event descriptors that each correspond to a distinct event stage (Caudal 2006: 11)). This assumption that situations are comprised of different stages has been espoused since at least Moens & Steedman (1988). I assume the following three types of stages:

- i) *Preparatory stages*: causal event stages involved in some types of atomic telic events. Preparatory stages are selected (e.g. in English) under prospective readings of the past progressive (e.g. 'John was winning the race'). These stages are peripheral to the stage structure (i.e. 'detachable' from the stage structure (cf. Smith 1991)), having a presuppositional status (they remain valid under negation and modals) (Caudal & Roussarie 2000: 362);
- ii) *Inner stages*: 'core' stages of all situations ('developments' *à la* Smith (1997 [1991])). If a situation is telic then the inner stages include its culmination. Inner stages of telic situations are selected (e.g. in English) by unmarked uses of the past progressive or simple past, and non-atomic situations, by 'begin' and 'start' (Caudal & Roussarie 2000: 362);
- iii) *Result stages*: stative result stages, applicable to all situations (although with major differences apparent between telic and atelic situations. They can be selected (e.g. in English) by the perfect (Caudal & Roussarie 2000: 362).

These three stages are demonstrated in Figure 4.1, for the atomic event 'Mona REACH the summit'.

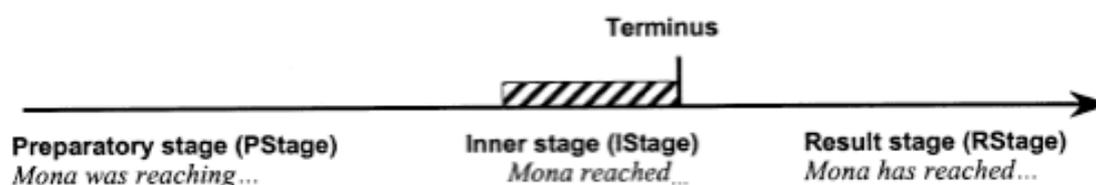


Figure 4.1 Stage structure for verbal complex 'Mona REACH the summit' (Caudal & Roussarie 2000: 362)

Stages can be selected against the temporal background through viewpoint aspect (e.g. through inflectional T/A markers), with viewpoints being focus operators causing one or several stages to become the aspectual core of the propositional content of the speech act (Caudal 2005: 106). As mentioned in §4.1, rather than analysing tenses as aspect-type shift operators, I follow Caudal (2005) in his claim that the aspectual contribution of tenses should be analysed as complex viewpoint functions, from which result and preparatory stages aren't derived from inner 'core' stages, but rather are part of the aspectual lexical information (Caudal 2005: 105-106; Caudal 2006: 11). For example, while most telic verbs in French disallow a durative 'for' <X time> phrase bearing on the result state, some verbs, such as *partir* 'leave', allows this (even with a non-resultative tense, such as the passé simple) (compare examples (4.7) and (4.8)), which suggests that the result stage information associated with *partir* 'leave' is different from those associated with ordinary telic verbs, and that telicity is therefore not sufficient by itself to explain the possibility of result stages for aspectual operations: only an approach that allows result stages to be lexically encoded explains the contrast between these telic events (Caudal 2006: 12).

4.7) *Yannig* *partit* *pendant* *trois* *jours*
 Yannig leave.PS.3sg for three days
 'Yannig left for three days'
 (Caudal 2006: 12)

4.8) **Yannig* *arriva* *pendant* *trois* *jours*
 Yannig arrive.PS.3sg for three days
 'Yannig arrived for three days'
 (Caudal 2006: 12)

4.2.4.2 *Scalar structure*

In addition to stage structure, another level of granularity with which situations are structured involves scalarity. Here, we are interested in telic events (i.e. which involve a change of state), of which different kinds can be distinguished depending on scalarity (e.g. the difference between atomic events ('die', 'leave'), non-atomic incremental events ('eat', 'drink'), non-atomic incremental, scalar events ('cook', 'wash'), and non-atomic scalar events ('convince')).

These differences can be identified by, for example, the way in which degree modifiers interact with the situation structure. These different telic events are discussed in this section.

In order to examine these aspects of telicity, it is necessary to consider the classification of verbs according to development scales (i.e. scales showing the ideal, maximal possible development), and account for the nature and structure of these scales (Caudal 2005: 111). Development scales can be recognised through examining the compatibility of certain degree modifiers (e.g. ‘completely’, ‘partially’, ‘very’, etc.) with different predicate types, whose distribution and interaction can be used to identify scalarity properties (Caudal & Nicholas 2005: 281). These measure how far a situation can progress, compared to others, towards some ideal, maximal point.

Development scales largely involve two underlying scale features; intensity [+/- intensity], and quantity [+/- quantity]. Quantity scales indicate whether the situation refers to the entire reference of a given NP ([-quantity]), or to its subparts ([+quantity]) – i.e. it demonstrates whether the predicate can express quantity degrees (Caudal 2005: 109). Compare examples (4.9) ([+quantity]) and (4.10) ([-quantity]).

4.9) John half ate the cake
 [+quantity]
 (i.e. half of the cake was eaten by John)

4.10) Mary half persuaded me to go
 [-quantity]
 (i.e. Mary persuaded me a little (= [+intensity], [-quantity])
 *Mary persuaded half of me to go)

Intensity scales indicate whether the situation can be referred to with different degrees of intensity. Compare examples (4.11) ([+intensity]) and (4.12) ([-intensity]).

4.11) Mary half persuaded me to go
 [+intensity]
 (i.e. Mary persuaded me a little)

4.12) John half ate the cake
 [-intensity]

(i.e. half of the cake was eaten by John

*the cake was eaten reluctantly/without enthusiasm/etc.)

As a result of considering these different types of scales ([+/- quantity] and [+/- intensity]), we can provide a classification of telic situations from these scalarity properties, with each type of telicity involving a specific type of development scale (Caudal 2005: 112). This is demonstrated in Table 4.2.

Scale	Telic event	Example
[-quantity], [-intensity]	atomic	X kill Y
[+quantity], [-intensity]	non-atomic incremental	X eat Y
[+quantity], [+intensity]	non-atomic incremental, scalar	X cook Y
[-quantity], [+intensity]	non-atomic scalar	X persuade Y

Table 4.2 Types of situations and scales (based on Caudal 2005: 113)

4.3 Aktionsart/event structure aspect properties in Anindilyakwa

Having provided a brief introduction to some of the relevant points regarding cross-linguistic perspectives to Aktionsart/event structure aspect, I now focus back to Anindilyakwa, identifying salient Aktionsart/event structure aspect properties in this language. Given that different distributional properties associated with different Aktionsarten are unique from language to language (Smith 1996: 229), I consider Aktionsart/event structure aspect in Anindilyakwa, whose salient Aktionsart properties were identified through examining the grammatically permissible (and impermissible) distribution and co-occurrence of various temporal adverbials (primarily measure adverbials and indirect duration adverbials), as well as through examining morpho-syntactic properties of reduplication patterns and inflectional TAM marking. These Aktionsart variables/tests used to identify distinctions with respect to the inherent temporal properties of different Anindilyakwa verbal complexes are summarised in Table 4.3. These Aktionsart properties and the means with which to identify them are discussed in detail throughout this section.

	Stative	Non-atomic, atelic	Non-atomic, telic	Atomic, telic
Possible with imperatives?	No	Yes	Yes	Yes
Reduplication (as an aspect modifier) expresses <i>only</i> pluractional reading?	No	No	Yes	Yes
Reduplicated stem in positive polarity context possible with bare stem inflectional paradigm (phonologically Ø TAM slot)?	No	No	Yes	Yes
Possible with measure adverbials (<i>adhuwaya</i> ‘for short time’ and <i>amiyerra</i> ‘for long time’)?	Yes	Yes	Yes	No
<i>wəranja</i> ‘quick, quickly’ and <i>ambaka=lhangwa</i> ‘slow, slowly’ modify inner stage of situation (rather than preparatory or result stages)?	Yes	Yes	Yes	No
Present temporal interpretation possible with bare stem inflectional paradigm (phonologically Ø TAM slot)?	Yes	Yes	Yes	No
Past temporal interpretation possible with bare stem inflectional paradigm (phonologically Ø TAM slot)?	No	Yes	Yes	Yes

Table 4.3 Aktionsart/event structure aspect properties in Anindilyakwa and variables/tests with which to identify them

I employed a variety of methods in order to produce results that are as robust as possible. The Aktionsart tests conducted involved asking Anindilyakwa language consultants for judgements of acceptability, truth and felicity of sentences in Anindilyakwa. Intuitively clear cases were chosen to begin with (i.e. using verbs in example sentences that more clearly demonstrated instances of particular Aktionsart properties (e.g. *-jungwə-* ‘to die’ (dynamic, instantaneous,

atomic event) vs. *-ambily-* ‘to stay’ (stative, durative, non-atomic situation)). This allowed for the initial consideration of data points that demonstrated the least complexity with respect to the aspectual system, allowing for more stable deductions to be made. Following this, more complex situations were examined.

In addition to data collected via careful elicitation, natural narrative corpus data were examined to confirm hypotheses based on the Aktionsart tests. For example, the distribution and collocations of adverbials that were examined in the Aktionsart/event structure aspect tests were investigated in the corpus data, in order to confirm and be confident of the results that emerged from the elicited tests and activities. This combination of careful elicitation, speakers’ grammaticality judgements and data derived from natural narratives and texts means that we can be more confident that the properties discussed throughout this chapter are sound⁴⁴. Of course however, the variables that were examined are not obviously exhaustive, and further research in this area could uncover other variables.

Through the examination of these Aktionsart properties and the variables with which to identify them in Anindilyakwa, I demonstrate in §§4.3.1-4.3.3 that the properties of dynamism and atomicity are particularly salient in this language, while telicity is less so. This bears some resemblances to Aktionsart/event structure aspect properties of Navajo, as described by Smith (1996, 1997). Within the discussion of telicity, I also consider the topic of non-culmination, given that REAL-V-PST/IRR-V-PST inflected telic verbal predicates do not entail the culmination of the event in Anindilyakwa (see §4.3.2.1).

4.3.1 Dynamism

As discussed in §4.2.2.4, the property of dynamism distinguishes stative situations from events (i.e. dynamic situations). Dynamism is a salient semantic feature in Anindilyakwa, making distinctions between stative and dynamic situations.

Cross-linguistically, events are compatible with the expression of agency and volition, while for semantic reasons, stative situations are not (Smith 1996: 234). Consequently, certain grammatical structures involving statives are semantically ill-formed, or at least dispreferred. In English, for example, stative imperatives and statives in combination with certain adverbs are usually semantically ill-formed, as in examples (4.13) and (4.14) (Smith 1996: 234).

⁴⁴ See §1.3.4 for further discussion of data collection and methodology.

4.13) *Be tall! (Smith 1996: 234).

4.14) *She carefully owned the farm (Smith 1996: 234).

Unsurprisingly, this imperative ill-formedness holds in Anindilykwa, where dynamic imperatives are semantically well-formed (example 4.15), whereas stative imperatives are not (example 4.16).

4.15) *yi-rrangka-Ø* *ngayuwə=wa*
DEON.2>1-look.at-USP 1.PRO=ALL
'Look at me!' [source translation]
(Stokes n.d.-b: 72)

4.16) **Ø-məreya-na*
DEON.2-be.hungry-NPST
'Be hungry!'

Grammatical distinctions that can be used to identify statives (vs. dynamic events) in English involve, particularly, imperfective (progressive) viewpoint aspect and pseudo-cleft *do* clauses. For dynamic events, these structures are grammatical, while for statives they are more restricted (e.g. *I am knowing the answer; *What she did was know the answer) (Smith 1996: 235).

In Anindilyakwa a key grammatical distinction that can be used as a diagnostic of dynamism involves the interaction of Aktionsart/event structure aspect with the inflectional TAM system, specifically involving verbs inflected with the REALIS prefix paradigm and the bare stem paradigm (phonologically Ø [+3] slot of the verbal template). Verbs that take this inflectional marking can exhibit both past and present temporal reference, dependent on the contextual interpretation of the verb and its Aktionsart properties. For dynamic events, verbs marked with REALIS-V-Ø inflectional marking are able to express a past temporal reference point, while stative verbs are unable to do so, with present temporal reference being the only option available (as in example 4.17). Inflectional TAM marking, including REALIS-V-Ø inflectional marking, and the aspectuo-temporal interaction of this inflectional marking with Aktionsart/event structure aspect properties, is examined in detail in Chapter 6.

- 4.17) *ngayuwa ngu-məreya-Ø anhangu=wa*
 1.PRO REAL.1-be.hungry-USP NEUT.food=ALL
 ‘I’m hungry for food’
 *I was hungry for food
 (JL, JRB1-050-01, 00.15.27-00.15.32)

4.3.2 *Telicity*

Telicity (telic vs. atelic) – the presence or absence of some endpoint or limit – appears to be fundamental for humans from a cognitive point of view (Smith 1996: 243). While there are grammatical correlates for telicity in Anindilyakwa, they are not as salient as other parameters (such as atomicity, for instance, which appears to play a much more important role in the acceptable distribution of various grammatical properties of the language; discussed in §4.3.3).

There are distributional correlates for telicity distinctions in many languages, such as in English for instance, where telic verbs are compatible with verbs and adverbials of completion (e.g. ‘finish’; ‘in an hour’), but are ill-formed with verbs and adverbials of simple duration (e.g. ‘stop’, ‘for an hour’), while the inverse is true of atelic verbs (i.e. compatible with verbs and adverbials of simple duration (e.g. ‘stop’; ‘for an hour’), ill-formed with verbs and adverbials of completion (e.g. ‘finish’; ‘in an hour’)) (Smith 1996: 236). As to be discussed below in §4.3.3, Anindilyakwa has similar restrictions in its distribution of measure adverbials with different situation types, however while in English these restrictions are based on telicity distinctions, in Anindilyakwa they are dependent upon atomicity properties of the predicate (see §4.3.3).

However, one area in which telicity appears to play a role in determining acceptable distributional correlates involves reduplication. One of the semantic functions of reduplication is as an aspect modifier (see §7.1.2 for a detailed discussion of the semantics of reduplication in Anindilyakwa). However, while reduplicated atelic predicates can express prolonged/extended/continuous aspectual readings, as well as pluractional aspectual readings, reduplicated telic predicates can express only pluractional readings. Compare, for example, the atelic predicate in (4.18) to the telic predicate in (4.19).

- 4.18) *nə-lharrma-lharrma-na=mərra*
 REAL.3M>NEUT-REDUP-chase-NPST=MUT

‘He keeps on chasing it’ [source translation]
(Leeding 1989: 358)

- 4.19) *na-lhawu-lhawurradh-Ø*, *nuw-angkarra-Ø*
REAL.NEUT-REDUP-return-USP REAL.NEUT-run-USP
‘It [the mother cat] kept going back, it ran off’ [source translation]
(GL, A3369a Side 1 a3.4, Bujikeda ‘Mother cat’, 00.07.28-00.07.32)

Moreover, reduplicated telic predicates in positive polarity contexts (such as (4.19)) are able to occur inflected with the bare stem paradigm (i.e. phonologically Ø [+3] TAM slot), while this is not acceptable with atelic verbs (example (4.20)).

- 4.20) **n-akəna* *nə-lharrma-lharrma-Ø*
3M-that REAL.3M>NEUT-REDUP-chase-USP
‘He keeps on chasing [it]’
(JL, fieldnotes, 19/11/2018)

Other tests for telicity involving scalarity (such as examining proportionate degree modifiers such as ‘partially’/‘completely’) were not successful, given that such adverbials in Anindilyakwa, e.g. *enəngangkawura* ‘thoroughly, completely’ are multifunctional in the language, being able to express readings associated with both proportionate degree modification (‘thoroughly’/‘completely’), as well as habituality/duration extent (‘always’/‘forever’).

4.3.2.1 Non-culminating telic events

Non-culmination is constrained by Aktionsart/event structure aspect and inflectional tense/aspect marking. It involves the modification of the event structure for a single event, with the culmination and result stages of a telic event not being achieved. Non-culminating readings entail that the event was performed, despite the fact that it does not entail the culmination of the event (Kroeger 2017: 12).

For telic events in Anindilyakwa, when the verbal predicate is inflected for REAL-V-PST or IRR-V-PST marking (i.e. inflectional marking involving the PAST morph (which can occur only in combination with either the REALIS or IRREALIS pronominal prefix paradigms)), both

culminating and non-culminating readings are possible. Telic events with REAL-V-PST/IRR-V-PST inflectional marking give rise to an implicature of culmination, however this can be cancelled, generally through a following clause that specifies the non-culmination (demonstrated in example (4.21) ('but he didn't eat it')).

Telic verbal predicates inflected for REAL-V-Ø or IRR-V-Ø (i.e. involving the REALIS prefix with the bare stem paradigm), on the other hand, entail that culmination occurred (i.e. a non-culminating reading is disallowed). Compare the non-culminating event in example (4.21), with the verbal complex inflected for REAL-V-PST, to example (4.22) inflected for REAL-V-Ø marking, in which a non-culminating reading is disallowed.

- 4.21) *n-alyəbarə-nə=ma* *y-akəna* *yinumanhənga* *akena*
 REAL.3M-eat-PST=MUT MASC-that MASC.wild.apple but
nara kən-alyəbarə-na
 NEG IRR.3M>MASC-eat-PST
 'He ate the wild apple, but he didn't eat it' [speaker translation]
 (i.e. 'he ate/began to eat the wild apple, but didn't finish it')
 (JL, PL, CW, fieldnotes, 19/07/2018)

- 4.22) **n-alyəbaru-Ø=ma* *y-akəna* *yinumanhənga* *akena*
 REAL.3M-eat-USP=MUT MASC-that MASC.wild.apple but
nara kən-alyəbarə-na
 NEG IRR.3M>MASC-eat- PST
 He ate the wild apple [i.e. began to eat, started eating], but he didn't eat it
 (JL, PL, CW, fieldnotes, 19/07/2018)

This interaction between telic events and inflectional tense/aspect marking as demonstrated in Anindilyakwa is consistent with cross-linguistic restrictions on non-culmination, in which, generally, events that are unable to express progressive viewpoint aspectual readings give rise to culmination entailments. In English, for example, culmination is entailed when an accomplishment is non-progressive. Compare examples (4.23) (simple past, which entails culmination) and (4.24) (past progressive, allowing for a non-culminating reading). Here, the progressive marked event focusses on the preparatory stages of the event, providing a prospective reading.

4.23) I repaired the radio (*but I didn't finish repairing it)

4.24) I was repairing the radio, but I was interrupted, and I didn't finish repairing it

While we find examples of non-culminating in English, there is a wider range of non-culminating telic events in Anindilyakwa. Non-culmination can occur with incremental (non-scalar) events (e.g. *-alyəbarə- yinumanhənga* 'eat wild apple', as in examples (4.21) and (4.22)), incremental, scalar events (e.g. *-dhaka-* 'cook', *-lyeng-burrukwə-ju-* 'fill', as in examples (4.25) – (4.27)), and scalar (non-incremental) events (e.g. *-eniba-ka-* 'save', as in examples (4.28) – (4.30)). Compare examples (4.25), (4.28) and (4.29), in which the events culminate, to examples (4.26), (4.27) and (4.30), in which no culmination of the event takes place.

4.25) *wurr-akəna wurrə-dharrəngka narrə-dhaka-Ø*
 3A-that 3A-woman REAL.3A>NEUT-cook-PST
narrə-dhaka-Ø=ma arndhərrba
 REAL.3A>NEUT-cook-PST=MUT NEUT.water.lily.roots
yandhə+lhangwa n-awalyuwa-dhə-Ø=ma
 until REAL.NEUT-cooked-INCH-PST=MUT
 'Those women cooked the water lily for a long time, until it was cooked'
 [speaker translation]
 (JL, JRB1-082-02, 00:05:45.994-00:06:18.739)

4.26) *wurr-akəna wurrə-dharrəngka narrə-dhaka-Ø=ma*
 3A-that 3A-woman REAL.3A>NEUT-cook-PST=MUT
arndhərrba a-warnk-amiyerra⁴⁵ akena nara ambaka
 NEUT.water.lily.roots NEUT-DIM-long.time but NEG later
kaw-alyuwadhə-na
 IRR.NEUT-be.cooked-PST
 'Those women cooked the water lily for a long time, but it still wasn't cooked'

⁴⁵ Both culminating (4.25) and non-culminating (4.26) telic events are compatible with the direct duration adverbials *adhuwaya* and *amiyerra*.

[author translation]

(JL, JRB1-082-02, 00:04:41.534-00:04:59.934)

- 4.27) *dh-akəna dhədharrəŋka yingi-lyeng-burrukwə-ju-wa*
3F-that 3F.woman REAL.3F>NEUT-head-disappear-CAUS-PST
akungwa bajikala=manja amiyerra akena nara
NEUT.water NEUT.bucket=LOC long.time however NEG
kə-lyang-burrukwə-ju-wa
IRR.3F>NEUT-head-disappear-CAUS-PST

‘That woman filled the water in the tin [for a long time], but never, the water didn’t, she never filled it up’ [speaker translation]

(JL, JRB1-089-01, 00:41:00.260-00:42:10.205)

- 4.28) *n-akəna nenəŋkwarba nen-eniba-ka-Ø=ma n-akəna*
3M-that 3M.man REAL.3M>3M-alive-FACT-PST=MUT 3M-that
nenjarrngalya adhuwaya
3M.boy **for.short.time**

‘That man saved [the] little boy for a little while’ [i.e. ‘maybe when he was having this heart attack, or something like that, then he [the man] was trying his best [to save him]... maybe he got better for a little while... [but afterwards, maybe the boy got better, maybe he didn’t], we don’t know’ (JL)]

(JL, JRB1-089-01, 00:24:49.735-00:25:09.915)

- 4.29) *n-akəna nenəŋkwarba nen-enibi-ka-Ø=ma*
3M-that 3M.man REAL.3M>3M-alive-FACT-PST=MUT
n-akəna nenjarrngalya amiyerra yandhə+lhangwa
3M-that 3M.boy **long.time** nothing+ABL [until]
n-enib=dha
3M-alive=TRM

‘That man brought the life of that boy, young man, for a while, until [he] was back to life’ [speaker translation]

(JL, JRB1-089-02, 00:19:04.875-00:20:40.145)

4.30) *n-akəna* *nenəngkwarba* *nen-enibi-ka-Ø=ma*
 3M-that 3M.man REAL.3M>3M-alive-FACT-PST=MUT
n-akəna *nenjarrngalya* ***amiyerra*** *akena* *nara*
 3M-that 3M.boy **long.time** however NEG
kən-enibə-dha-Ø
 IRR.3M-alive-INCH-USP
 ‘That man, he brought the boy’s life [back, for a] little while, but he never
 bought him back, just for a little while, then he was gone, he never came back
 to life’ [speaker translation]
 (JL, JRB1-089-02, 00:20:53.200-00:23:27.270)

Similar to that discussed for the English example (4.24), for non-culminating telic events in Anindilyakwa, the event focusses on the preparatory stages of the event leading to the culmination. Compare Figure 4.2, displaying the event of saving/bringing a boy back to life, which leads to culmination and the result state, where the boy is alive (example (4.29)), to Figure 4.3, displaying the event of saving/ bringing a boy back to life, but which does not culminate (example (4.30)).

E₁ = save (the man, the boy)
 E₂ = alive (the boy)

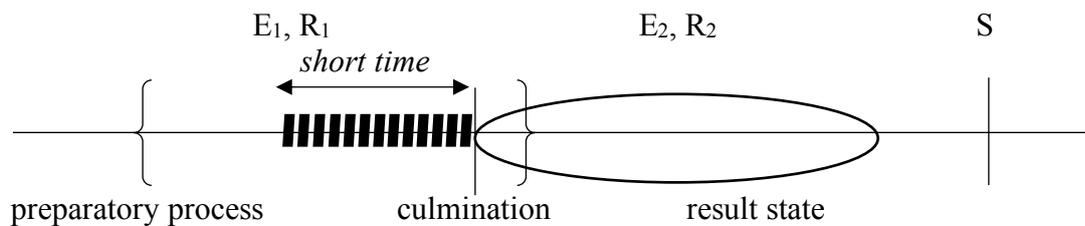


Figure 4.2 ‘That man brought the life of that boy for a while, until [he] was back to life’

e = save (the man, the boy)

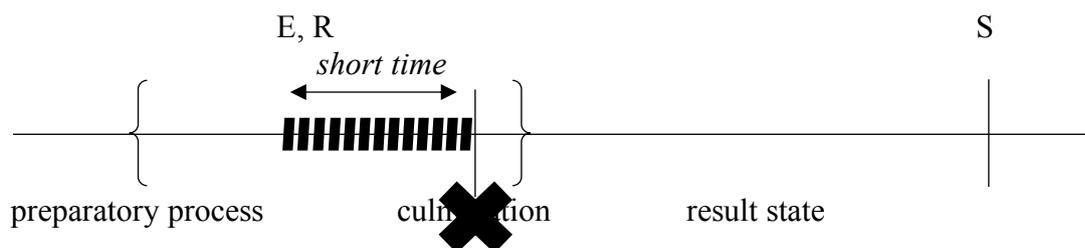


Figure 4.3 ‘That man brought the boy’s life back for a little while, but... he never came back to life’

4.3.3 Atomicity

The property of atomicity is a salient semantic feature that is key to distinguishing between different kinds of situations in Anindilyakwa. Non-atomic events are those that involve a complex change-of-state whose development can be measured along its sub-parts, and which can be resumed if interrupted (Caudal 2005: 104) (e.g. *-mebi-* ‘sing’, *-lhəkə-* ‘go’), while atomic events involve a holistic one-step change-of-state (i.e. only two degrees, a minimal and maximal one) (e.g. *-jungwə-* ‘die’, *-lyumadhə-* ‘disappear’, *-warda-* ‘hit/kill’, *-ngaji-* ‘hit/kill’).

There are various different grammatical distinctions in Anindilyakwa that correlate with properties of atomicity. Durational adverbials (measure adverbials and implied durational adverbials) are particularly useful diagnostic variables for these parameters in Anindilyakwa, and are examined in detail below. Additionally, the inflectional T/A system, specifically the combination of the REALIS pronominal prefix paradigm with the bare stem paradigm (i.e. phonologically \emptyset [+3] TAM slot), is sensitive to properties of atomicity, observable through the temporal interpretation of the verbal predicate. This is also discussed below.

Measure adverbials

In English, measure adverbials (e.g. ‘for an hour’) are compatible with atelic verb complexes, but incompatible with telic ones. Telic verbs will either be ungrammatical with these adverbials, or they will be coerced to behave differently, taking either an ingressive interpretation (relating to the interval before the event takes place), or triggering the interpretation of a durative event with internal stages (e.g. cough for an hour) (Smith 1996: 235).

In Anindilyakwa there are two measure adverbials⁴⁶, *adhuwaya* ‘for short [duration of] time’ and *amiyerra* ‘for long [duration of] time’, used to express the duration of time of a situation. Unlike the examples of English provided above, these are not used as diagnostics of telicity in Anindilyakwa but rather of atomicity. Both telic and atelic events are grammatical and well-formed in combination with these adverbials; it is only atomic events that are disallowed with the *adhuwaya* and *amiyerra* measure adverbials.

⁴⁶ While most temporal adverbials associated with duration in Anindilyakwa are multifunctional, being able to express readings associated with both duration as well as temporal deixis, *adhuwaya* and *amiyerra* are not, expressing only a durative meaning. See Appendix B for an overview of other temporal adverbials.

Examples (4.31) and (4.32) demonstrate the compatibility of *adhuwaya* and *amiyerra* with atelic, non-atomic events, including statives (4.31) and dynamic, non-atomic events (4.32), and examples (4.33) and (4.34) furthermore demonstrate their compatibility with non-atomic, telic events.

- 4.31) *kembirra* *Aburema-mərriya* *narrə-lhalhəka-Ø* *wurr-akəna*
 then Abram-the.rest REAL.3A-leave-PST 3A-that
Kenina *akwa* *na-mərndakə-lhəke-na* *angerriba* *Yijibu=wa,*
 Canaan and REAL.3A-many-go-PST to.over.there Egypt=ALL
kajungwa *kuw-ambilyi=yedha* *yakwujina* ***adhuwaya,***
 so.that IRR.3A-stay.PST=PURP there **for.short.time**
nara+wiyā *ebina* *anhənga* *ambaka*
 NEG+QUANT NEUT.this.same NEUT.food later
Kenina=manja

Canaan=LOC

‘There was so little food that Abram and his family left Canaan and went down to Egypt to live there for a while’ [source translation]

(Bible Society in Australia 1992: 83)

- 4.32) *wurr-akəna* *wurruwarda* *nuw-arkadha-ngə=ma*
 COLL-that COLL.dog REAL.COLL-bark-PST=MUT
arnk-ababərn=lhangwa *alyarrungwalya* ***amiyerra***
 time-many=ABL at.night **long.time**

‘This dog used to bark for a long time every night’ [author translation]

(JL, JRB1-082-01, 00:23:22-00:23:29)

- 4.33) *n-akəna* *nə-mərəkwarəkə-nə=ma* *arəngbərrə=lhangwiya*
 3M-that REAL.3M-cross-PST=MUT NEUT.wide=PERL
angalya ***a-warnk-amiyerra***⁴⁷
 NEUT.place NEUT-DIM-long.time

⁴⁷ In some of these examples *amiyerra* occurs with the DIMINUTIVE prefix *-warnk-*, which indicates the time span referred to is smaller than *amiyerra* (often translated as ‘a little bit long time’; i.e. ‘a fairly long time’).

‘He [that man] crossed that big plain [for a long time]’ [speaker translation]
(JL, JRB1-082-02, 00:10:27.484-00:11:07.409)

- 4.34) *n-akəna* *nenəŋkwarba nen-eniba-ka-Ø=ma* *n-akəna*
 3M-that 3M.man REAL.3M>3M-alive-FACT-PST=MUT 3M-that
nenjarrngalya adhuwaya
 3M.boy **for.short.time**
 ‘That man saved [the] little boy for a little while’ [i.e. ‘maybe when he was having this heart attack, or something like that, then he [the man] was trying his best [to save him]... maybe he got better for a little while... [but afterwards, maybe the boy got better, maybe he didn’t], we don’t know’ (JL)]
 (JL, JRB1-089-01, 00:24:49.735-00:25:09.915)

For telic predicates, as in (4.33) and (4.34), the adverbial modifies the inner stages of the situation, leading up to (but not including) its culmination. See, for example, Figure 4.4, which demonstrates the modification of *amiyerra* ‘for short time’ on the inner stages of the event ‘he crossed that big plain’ (example (4.33)).

E = cross (he, the big plain)

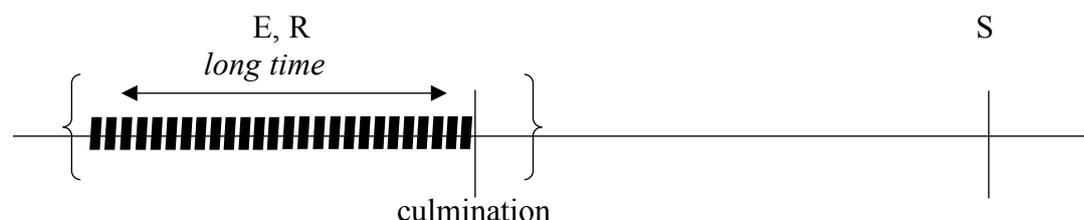


Figure 4.4 ‘He crossed that big plain [for a long time]’

In circumstances in which *adhuwaya* and *amiyerra* occur with atomic verbal predicates, the only way they can be grammatical is if they coerce an iterative reading, as in examples (4.35) and (4.36).

- 4.35) *dh-akəna* *dhədharrəŋka* *yingənə-warda-ngə=ma* *n-akəna*
 3F-that 3F.woman REAL.3F>3M-hit-PST=MUT 3M-that
nenəŋkwarba **a-warnk-amiyerra**

3M.man **NEUT-DIM-long.time**
 ‘The woman hit the man for a long time’ [author translation]
 *The woman hit the man [one hit] for a long time
 (JL, JRB1-082-02, 00:19:18.279-00:19:25.929)

4.36) *n-angaba* *nenəngkwarba nə-mədhilyakbə-rna=ma*
 3M-that.over.there 3M.man REAL.3M-cough-NPST=MUT
a-warnk-amiyerra, *for a long time*
NEUT-DIM-long.time
 ‘When you cough, when you say about, you coughing a lot, for a long time’
 [speaker translation]
 ‘That man coughs for a long time’ [author translation]
 *The man coughs [one cough] for a long time
 (JL, JRB1-083-01, 00:09:31.510-00:09:38.050)

Anindilyakwa speakers accept that these clauses are grammatical and well-formed (with an iterative reading), but still generally disfavour these adverbials in such circumstances, preferring other temporal adverbials that can express both temporal duration and temporal deictic readings (e.g. *adhənuba*; *adhəna[k]ba*; *ar[ə]ngkidarrba*; see Appendix B). Examples of speakers’ intuitions about these adverbials in such contexts are provided in examples (4.37) and (4.38).

4.37) ‘*adhuwaya* doesn’t suit in coughing’
 (JL, JRB1-083-01, 00:05:14.555-00:06:28.365)

4.38) ‘The language doesn’t seem to be connected to each other when you mention
adhuwaya’ [talking about ‘coughing’]
 (JL, JRB1-083-01, 00:08:30.365-00:08:40.545)

Atomic verbal predicates unable to coerce an iterative reading are unable to occur in any semantically well-formed manner with the measure adverbials *adhuwaya* and *amiyerra*, as observed in examples (4.39) and (4.40).

- 4.39) **dh-akəna dhədharrəŋka yingi-jerrukwa-Ø akəna*
 3F-that 3F.woman REAL.3F-finish-PST NEUT.that
sandwich adhuwaya
 NEUT.sandwich **for.short.time**
 *The woman finished [eating] the sandwich for a short time
 [‘this *amiyerra* and *adhuwaya* make you muddle up that sandwich sentence’
 (JL)]
 (JL, JRB1-089-01, 00:30:07.265-00:30:21.240)

- 4.40) **n-akəna nenəŋkwarba ni-jerrukwa-Ø*
 3M-that 3M.man REAL.3M-finish-PST
nə-ngekburaka-Ø=ma akəna enungkwa adhuwaya
 REAL.3M-make-PST=MUT NEUT.that NEUT.spear **for.short.time**
 *The man finished making the spear for a short time
 (JL, JRB1-089-01, 00:31:49.550-00:32:01.890)

Implied durational adverbials

Adverbials that imply temporal duration, rather than explicitly stating it (e.g. adverbs such as ‘slowly’, ‘quickly’ in English) (Smith 1996: 238), as with measure adverbials (i.e. direct durational adverbs), can be used as diagnostics for different Aktionsart properties in some languages.

In Anindilyakwa, the indirect duratives *wəranja* ‘quickly, soon’ and *ambaka=lhangwa* ‘slowly, carefully’ are compatible with all verbal predicates, however with non-atomic predicates (as in example (4.41)), the adverbial modifies the inner stage(s) of the situation, while for atomic predicates, the adverbial modifies an interval of time preliminary to the event (the preparatory stage(s)), rather than referring to any core inner stage of the situation (as in (4.42)). Thus, the interpretation of such implied durational adverbials can also be used as a diagnostic criterion, with respect to the semantic features of atomicity.

- 4.41) *n-akəna nenəŋkwarba nə-rədha-ŋə=ma*
 3M-that 3M.man REAL.3M>NEUT-cut.up-PST=MUT
akəna ayika wəranjəbə+wiya angkw-ababərn=lhangwa
 NEUT.that NEUT.tree quickly+QUANT time-many=ABL

<i>alyarrəngwalya</i>	<i>mena</i>	<i>nu-wərrk-awərriya-dhə-nə=ma</i>
at.night	because	REAL.3M-chest-upset-INCH-PST=MUT
<i>n-akəna</i>	<i>wərr-akəna</i>	<i>rangers</i>
3M-that	3A-that	3A.rangers
<i>kembirra</i>	<i>adhuwayə+wiya</i>	<i>nə-rədha-ngə=ma</i>
then	in.short.time+QUANT	REAL.3M> NEUT-cut.up-PST=MUT
<i>ena</i>	<i>ayika</i>	
NEUT.this	NEUT.tree	

‘That man, he cut the tree down, but he didn't want rangers to see him, so he cut the tree short time without rangers seeing him’ [speaker translation]
(JL, JRB1-082-01, 00:08:32-00:09:03)

- 4.42) *ni-yedha-Ø* *yakwuju* *wərənjabə=wiya*
REAL.3M-arrive-USP there quickly=QUANT
‘He got there quick’ [speaker translation]
(JL, JRB1-082-02, 00:16:21.559-00:16:26.409)

Interaction with inflectional T/A marking

Interaction with the inflectional TAM system can be used as a diagnostic for the features of atomicity in Anindilyakwa. Similar to the discussion regarding dynamism in §4.3.1, the temporal interpretation of the verbal predicate inflected for the REALIS prefix paradigm and the bare stem paradigm (phonologically Ø [+3] slot of the verbal template) can be equally useful in determining non-atomic situations from atomic ones. While non-atomic events marked with REALIS-V-Ø inflectional marking are compatible with a present temporal reference point, atomic events taking REALIS-V-Ø inflectional marking are able only to express past temporal reference, as in example (4.43). See Chapter 6 for comprehensive discussion regarding the interaction between the inflectional T/A marking and Aktionsart/event structure aspect, particularly with respect to the aspectuo-temporal properties of the REALIS prefix paradigm and the bare stem paradigm (phonologically Ø [+3] slot of the verbal template).

- 4.43) *n-akəna* *nenəngkwarba ni-jungə-Ø=ma,* *n-akəna*
3M-that 3M.man REAL.3M-die-USP=MUT 3M-that
nenəngkwarb ni-jungu-Ø=ma

3M.man REAL.3M-die-USP=MUT
'He passed away' [speaker translation]
*He passes away/is passing away [now]
(JL, JRB1-049-01, 00.47.04-00.47.16)

4.4 Summary

Intrinsic temporal properties of the verb are integral to the system of aspectual expression in Anindilyakwa, with the intersection between lexical properties of the verb (i.e. Aktionsart/event structure aspect/actionality) and the system of inflectional marking of the verb a particularly salient feature of the language. Given that Anindilyakwa has an inflectional system that demonstrates a high degree of aspectuo-temporal underspecification (discussed further in Chapter 6), this means that Aktionsart/event structure aspect properties (as well as discourse and contextual factors) often play an important role in distinguishing between different aspectuo-temporal readings.

The identification of Aktionsart/event structure aspect properties has long been used to classify situations. This was the focus of Vendler's seminal (1957) article, a very influential paper in the domain of Aktionsart/event structure aspect, which proposed that clusters of syntactic properties can be used to characterise different situation types. Vendler proposed four Aktionsart classes; States, Activities, Achievements and Accomplishments.

While Vendler's Aktionsart classes have been very influential, the temporal distinctions and diagnostics for these distinctions are heavily based on English data. Of course, basing assumptions on one or a small-subset of languages is problematic, and it is necessary that Aktionsart/event structure aspect parameters are established separately for different languages, using language-specific means (Smith 1996).

While influenced by Vendler's Aktionsart classes, I assume that the core temporal properties concerning Aktionsart/event structure aspect involve the notions of dynamicity (i.e. the quality of a situation which determines whether it is perceived as being static or dynamic), telicity (i.e. an indication of an inherent endpoint to a situation), and atomicity (i.e. whether an event can be split up into intermediary degrees, or involves only a one-step change of state).

Given that the different distributional properties associated with different Aktionsarten differ and are unique from language to language (Smith 1996: 229), salient Aktionsart properties were identified in Anindilyakwa through examining the grammatically permissible (and impermissible) distribution and co-occurrence of various temporal adverbials (primarily

measure adverbials and indirect duration adverbials), as well as through examining morpho-syntactic properties of reduplication patterns and inflectional TAM marking.

Through this examination, it was observed that some of the most salient variables/tests that can be used to identify distinctions with respect to the inherent temporal properties of different Anindilyakwa verbal complexes relate to the property of dynamism and atomicity.

Dynamism distinguishes stative situations from events (i.e. dynamic situations), and in Anindilyakwa the interaction of Aktionsart/event structure aspect with the inflectional TAM system (specifically involving verbs inflected with the REALIS prefix paradigm and the bare stem paradigm) can be used as a diagnostic of dynamism.

The property of atomicity is a salient semantic feature that is key to distinguishing between different kinds of situations in Anindilyakwa. There are various different grammatical distinctions in Anindilyakwa that correlate with properties of atomicity. Durational adverbials (measure adverbials and implied durational adverbials) are particularly useful diagnostic variables for these parameters, and additionally the inflectional T/A system (specifically the combination of the REALIS pronominal prefix paradigm with the bare stem paradigm), is sensitive to properties of atomicity, observable through the temporal interpretation of the verbal predicate.

Telicity is not as salient as other parameters in distinguishing between different kinds of situations in Anindilyakwa, however one area in which telicity appears to play a role in determining acceptable distributional correlates involves reduplication, where reduplicated telic predicates can express prolonged/extended/continuous aspectual readings (as well as pluractional aspectual readings), while reduplicated telic predicates can express only pluractional readings.

Chapter 5

Derivational morphology, Aktionsart/event structure aspect and word meaning

When examining Aktionsart/event structure properties, the role of derivational morphology with respect to the analysis of word meaning is important to consider, particularly in relation to statives and inchoative change-of-state eventualities.

Examining derivational morphology is particularly important to consider with respect to expressing word meaning and formation in languages with relatively small verbal lexicons, which thus rely on productive derivational processes to produce verbs (as is the case with a large number of Australian languages) (cf. Caudal, Dench & Roussarie 2012). While Anindilyakwa synchronically has a large number of monomorphemic verbs, it also contains many verbal stems that involve a derivational suffix attached to a nominal root.

As outlined in §2.3.1.2.2, there are two productive verbalizing suffixes in Anindilyakwa, the INCHOATIVE *-dhə-* and FACTITIVE *-kə- ~ -kwə-*, which attach to nominal stems to form verb stems of conjugation classes 1 and 4 respectively. My corpora contain around 90 verb stems formed with the INCHOATIVE suffix, and 70 formed with the FACTITIVE suffix.

In this chapter I first focus on the INCHOATIVE and FACTITIVE derivational suffixes in §5.1. I provide an overview of these two verbalizing suffixes in §§5.1-2, considering particularly stative and non-stative (change-of-state) readings available. §5.2 then looks at how INCH/FACT derivational markers combine with the semantic contribution of the base stems, and

provides a broad classification of Anindilyakwa base stems. §5.3 provides a summary of the chapter.

5.1 Inchoative and factitive derivational suffixes

Pairs of inchoative/factitive verbs derived from a single stem are often described as forming general patterns of inchoative/causative alternation in grammars of Australian languages, and these alternations have sometimes been assumed to exhibit a special type of transitivity alternation (Caudal, Dench & Roussarie 2012: 118). This alternation has been claimed for Anindilyakwa, where van Egmond (2012: 168) states that ‘the meaning of ‘becoming’ [(i.e. changes of state) is] expressed by the inchoative’ (in contrast to the meaning of ‘being’ [i.e. statives]... expressed by a nominal’) and change-of-states with the meaning ‘to make something [X]’ with the factitive (van Egmond 2012: 169). However, while FACTITIVE marked stems do in fact always express change-of-state causation (i.e. never stative readings), INCHOATIVE marked stems have two readings available at their disposal: a change-of-state reading, as well as a stative reading. This is demonstrated in examples (5.1) – (5.5), which displays series of nominal stems (a), and corresponding inchoative derived verb stems (b) and causative derived verb stems (c).

- 5.1) *eyekirrerra* ‘happy’
- a. *-eyekirrerra* (n.) ‘be happy, become happy’
 - b. *-eyekirrerra-dhə-* (vi.) ‘be happy, become happy’
 - c. *-eyekirrerra-kə-* (vt.) ‘make happy’
- 5.2) *enibəka* ‘crazy’
- a. *-enibəka* (n.) ‘be crazy, become crazy’
 - b. *-enibəka-dhə-* (vi.) ‘be crazy, become crazy’
 - c. *-enibəka-kə-* (vt.) ‘make crazy’
- 5.3) *angakbalhuwalha* ‘wide’
- a. *-angakbalhuwalha* (n.) ‘be wide’
 - b. *-angakbalhuwalha-dhə-* (vi.) ‘be wide, become wide’
 - c. *-angakbalhuwalha-kə-* (vt.) ‘make wide’

- 5.4) *alyarrəngandha* ‘hot’
- a. *-alyarrəngandha (n.)* ‘be hot’
 - b. *-alyarrəngandha-dhə- (vi.)* ‘be hot, become hot’
 - c. *-alyarrəngandha-kwə- (vt.)* ‘make hot’

- 5.5) *eniba* ‘alive’
- a. *-eniba (n.)* ‘be alive’
 - b. *-eniba-dhə- (vi.)* ‘become alive (again); come back to life’
 - c. *-eniba-kə- (vt.)* ‘make alive (again), save’

Thus, as demonstrated in examples (5.1) – (5.5), while FACT derived verbs express change-of-state causative readings, both nominal stems and derived INCH verb stems are variable in their readings: e.g. INCH derived verbs are not straightforwardly categorised as inchoative, but rather expressing transient state readings along with *bona fide* inchoative readings (i.e we’re not dealing with a simple aspectual-actional pairing). As I briefly overview in §5.1.1, the ability for a nominal to take an inchoative change-of-state reading (in addition to a stative reading), and for a derived INCH verb stem to take a stative reading (in addition to an inchoative change-of-state reading), is dependent upon lexical properties of the stem. Thus, to understand the relationship between nominal stems and derived verb stems expressing stative and change-of-state readings, the semantic properties of the nominal/derived verb stem must be examined.

I provide more details about the INCH in §5.1.1, and the FACT in §5.1.2, before providing a general classification for Anindilyakwa base stems, taking into consideration how the INCH/FACT verbalizers combine with the semantic contribution of base stems, in §5.2.

5.1.1 INCHOATIVE

Examples (5.1) – (5.4) all describe temporary, changeable, gradable properties (stage-level properties *à la* Carlson (1977, 1980)), while (5.5) describes a permanent property (individual-level properties *à la* Carlson (1977, 1980)). It is evident that while derived INCH stems in examples (5.1) – (5.4), expressing stage-level properties, take both stative and change-of-state readings, example (5.5), expressing an individual-level property, can only take a change-of-state reading. Looking closer at examples (5.1) – (5.4), we can further observe that while nominal predicates expressing temporary emotional states can take both stative and change-of-state readings, as in examples (5.1) and (5.2), nominal predicates expressing changeable

physical attributes and changeable temperatures can only take stative readings, as in examples (5.3) and (5.4).

5.1.2 FACTITIVE

The FACTITIVE is added to nouns or adjectives in order to form transitive verb stems, expressing change-of-states with the meaning ‘to make something [X]’ (van Egmond 2012: 169). In contrast to the INCHOATIVE, the FACTITIVE requires a change-of-state predicate (i.e. a stage-level property) controlled by an external argument (Caudal et al 2012: 12). FACTITIVE stems can be transitive or intransitive, and they can be followed by other derivational suffixes (van Egmond 2012: 170). This is demonstrated in Table 5.1, with examples of intransitive and transitive verb stems with factitive marking in the left column, and factitive marked stems taking further derivational suffixes in the right column.

There are two allomorphs of the factitive suffix: the unmarked form *-kə-*, and the phonologically conditioned *-kwə-*, which is triggered by a preceding rounded or bilabial peripheral consonant (Leeding 1989: 368-9). However, there are some exceptions to this rule (for example, (5.4c)) which require further research.

Lexicalised factitive		Derived verb	
<i>-lhawurra+kə-</i>	‘bring back’ tr.	<i>-lhawurra+ka-ji-</i>	‘make return’ (bring.back-CAUS)
<i>-yangmarng+kwə-</i>	‘be happy’ intr.	<i>-yangmarng+kwa-ji-</i>	‘praise, thank, workshop’ (be.happy-CAUS)
<i>-ikbərri+kwə-</i>	‘disappear’ intr.	<i>-ikbərri+kwa-ji-</i>	‘make disappear’ (disappear-CAUS)
<i>-mərndə+kwə-</i>	‘come together’ intr.	<i>-mərndə+kwa-</i>	‘make gather up’ (come.together- CAUS)
<i>-ekberr+kwə-</i>	‘be soaking’ intr.	<i>-ekberr+kwa-ji-</i>	‘soak, put in water’ (be.soaking-CAUS)
<i>-warri+kwə-</i>	‘go across, miss’ tr.	<i>-warri+kwa-ji-</i>	‘(ex)change, turn over’

			(go.across-CAUS)
		-warru+kwe-yi-	‘take turns’ (go.across-RECIP)
		-warru+kwa- jungwə-	‘repent, convert’ (go.across-REFL)

Table 5.1 Verb stems with factitive marking (van Egmond 2012: 171)

While the factitive normally attaches to nominal stems, there are a limited number of recorded instances in which it attaches to a verb, as displayed in Table 5.2. In these cases, it appears that the factitive functions as an applicative, changing the argument structure of the verb, similar to the role of the causative suffix. In fact, it is unclear what the difference between the factitive and causative suffix is in these circumstances (van Egmond 2012: 171).

Verb		Factitive	
-warr-	‘move’ intr.	-warru+kwə-	‘go across, miss, confuse’ tr.
-ngunji-	‘suck’ intr.	-ngunji-kə-	‘suckle’ tr.
-war-dha-	‘work’ intr.	-war-dhə-kə-	‘make work, control’ tr.

Table 5.2 Factitive marking on verb roots (van Egmond 2012: 171)

In some examples, the factitive occurs following a *-rr-* segment, which van Egmond (2012: 172) suggests could be the remnants of an intransitive denominaliser suffix, given that *-rrV-* is widespread in Australia as an intransitive denominaliser (Dixon 1980). Some examples of this are provided in Table 5.3.

Nominal	INCH derived stem	FACT derived stem
-arəma ‘big’	-arəmə-dhə- ‘become big’	-arəmə-rr-kə- ‘make big, bring up’
-arrəbədha ‘strong’	-arrəbədha-dhə- ‘become strong’	-arrəbədha-rr-kə- ‘strengthen’

<i>-ingbādha</i> ‘strong’	<i>-ingbādhā-dhā-</i> ‘become strong’	<i>-ingbādhā-rr-kā-</i> ‘strengthen’
<i>ariba</i> ‘land’		<i>-ribe-rr-kā-</i> ‘go ashore’ (intr.)
?	<i>-ambādhā-dhā-</i> ‘be delayed’	<i>-ambādhā-rr-kā-</i> ‘stop, hesitate’
?	<i>-lyi-dhā-</i> ‘be rubbed off’	<i>-lyā-rr-kwā-</i> ‘rub out’
<i>-eningma</i> ‘know’	<i>-eningmā-dhā-</i> ‘get to know’	<i>-eningmā-kā-</i> ~ <i>-eningmā-rr-kā-</i> ‘teach’

Table 5.3 The factitive preceded by *-rr-* segment (van Egmond 2012: 172)

5.2 Verb types involving derivational (INCH and FACT) stems

Following the discussion of the INCH and FACT in §5.1.1 and §5.1.2, we can see that there are regular lexical semantic properties that impose different readings, concerning the productive use of the INCH/FACT derivational markers. We can observe that these two derivational markers should be viewed as stage-level eventualizers (cf. Caudal et al 2012: 120), but which show different semantic requirements on their inputs: INCH requiring either stative or change-of-state stage-level predicate inputs, while FACT requires a change-of-state predicate input (this is not dissimilar from what Caudal et al (2012) demonstrate for Panyjima (non-Pama-Nyungan)).

Thus, for the rest of this section I examine how INCH/FACT derivational markers combine with the semantic contribution of the base stems, by providing a broad classification of Anindilyakwa base stems. This can then inform us about the semantics of nominal derived verb stems. I follow the framework outlined in Caudal et al (2012), however observing some differences in the way that this plays out in Anindilyakwa.

I identify two main types of base stems: i) predicative property-denoting bases; and ii) those nominal bases that denote a property of some argument of the predicate.

5.1.1 Type 1: Nominal base as predicative property of stative or inchoative verb form

The first of the two types of base stems identified are those nominal bases that denote a property that is associated with the core meaning of an event predicate. This includes i) those nominal bases that, in INCH derived stems, can denote both stage-level stative or non-stative (change-

of-state) readings; and ii) those nominal bases that denote individual-level atomic properties, and which, in INCH derived stems, are unable to realise a stative reading (i.e. must describe the result state of a change-of-state predicate (Caudal et al 2012: 122)). I overview these two ‘sub-types’ below.

Nominal base denotes stative property, which in derived INCH stem can express stage-level stative or non-stative readings

The majority of nominal INCH/FACT derived verbal predicates in Anindilyakwa can express both stage-level stative and non-stative (change-of-state) readings. This is in contrast to the nominal bases from which they are derived (i.e. uninflected stative predicates), which receive stative stage-level – and in some cases individual-level – properties. Thus, INCH derived verbs are only capable of receiving stage-level readings, but unlike many of their nominal bases, can express both stative and change-of-state readings. Compare, for example, examples (5.6) – (5.8), showing stative readings, to examples (5.9) – (5.12), showing inchoative change-of-state readings.

- 5.6) *biya* *na-lharruwura-dha-Ø* *arakba*
 and.then REAL.NEUT-**afternoon**-INCH-USP COMPL.ACT
 ‘It was late afternoon’ [source translation]
 (Bible Society in Australia 1992: 174)

- 5.7) *nara* *ambaka* *ebina* *ariba* *əmba*
 NEG later NEUT.that.same NEUT.land but
akungwa=wiya *yimbukwa* *akəna* *nuw-ambilyu=ma*
 NEUT.water=QUANT only NEUT.that REAL.NEUT-stay.PST=MUT
akwa na-lharrumurdhə-nə-mə=ka *akəna* *ngəwa*
 and REAL.NEUT-**dark**-PST=MUT=EMPH NEUT.that continue
 ‘There was no dry land yet, only water, and it was dark’ [source translation]
 (Bible Society in Australia 1992: 2)

- 5.8) *akwa* *kirr-awiyuwiyebe-na=ma* *dh-əwabilya* *dhəmbalha*
 and REAL.2A-wear-NPST=MUT FEM-warm FEM.clothes
yiku-wabilya-dhə-ni=yedha *kirr-akəna*

IRR.2A-**warm**-INCH-PST=PURP 2A-that
 ‘And you always wear warm clothes, to keep warm’ [source translation]
 (Bible Society in Australia 1992: 695)

5.9) *kembirra* *na-lharruwura-dha-Ø* *arakba*
 then REAL.NEUT-**afternoon**-INCH-USP COMPL.ACT
 ‘Afternoon came’ [and then the sun began to set] [source translation]
 (Bible Society in Australia 1992: 624)

5.10) *na-lharrumurdha-Ø* *nenə-mungkwulha* *wurdarriya+wiya*
 REAL.NEUT-**dark**-PST REAL.3M.DU-sleep.PST morning+QUANT
 ‘It became dark and they slept until morning’ [source translation]
 (Bible Society in Australia 1992: 502)

5.11) *kembirra* *Jesus nen-eningaba-ka-Ø=ma* *wurr-akəna*
 then Jesus REAL.3M-**good**-FACT-PST=MUT 3A-that
enəng-erribirra=lhangwa *angbilyuwa* *akwa*
 NEUT.M.ALP-anyhow=ABL NEUT.sickness and
na-mərndak-eningaba-dhə-nə=ma *arakba* *wurr-akəna=dha*
 REAL.NEUT-many-**good**-INCH-PST=MUT COMPL.ACT 3A-that=TRM
 ‘Jesus healed every kind of sickness and the people became better’ [source translation]
 (Bible Society in Australia 1992: 586)

5.12) *kembirra* *na-lyangmandhukwuna-dhə-nə=ma akəna=dha*
 then REAL.NEUT-**true**-INCH-PST=MUT NEUT.that=TRM
 ‘[That word] became true’ [source translation]
 (Bible Society in Australia 1992: 1014)

While in some instances it is evident whether a derived verb takes a stative or change-of-state reading, it is often difficult to tell whether an interpretation is one or the other. For instance, in example (5.13), it is not obvious whether the reading denotes a resultative state holding at the utterance time (e.g. ‘I was hot’/ ‘I was cold’), or whether it denotes a progressive change-of-state reading (e.g. ‘I was getting hot’/ ‘I was getting cold’). It appears that stative and change-of-state readings of these INCH derived verbs form a continuum, with stative and change-of-

state readings of these derived verb forms not being too far from one another (given that the transient stage-level properties of the stative readings are necessarily caused by an inchoative, change-of-state meaning) (cf. Caudal et al 2012: 125).

Of course, here we are only talking about INCH derived verbs; stative readings cannot similarly be interpreted with FACT derived verbs. These FACT derived verb forms, in contrast, can only express causative, change-of-state readings.

- 5.13) *kembirra arngk+ababərna=lhangwa nganja*
 then time+many=ABL 1.PRO.CofR
nəng-arda-dhə-nə-mə=ka m-ardidharra ngayuwa
 REAL.1-**hot**-INCH-PST=MUT=EMPH VEG-hot 1.PRO
m-enəngə-lhədha əmba alyarrngwalyilya
 VEG-M.ALP-day but NEUT.night
nəngə-murnda-dhə-nə-mə=ka ngayuwa=dha
 REAL.1-**cold**-INCH-PST=MUT=EMPH 1.PRO=TRM
 ‘Many times I was hot in the daytime, and cold at night’
 (Bible Society in Australia 1992: 256)

The nominal bases that receive these readings in INCH/FACT derived forms include physical properties (e.g. big, small, dark), psychological states (e.g. happy, sad, calm, crazy) and cognitive states (e.g. know, not know). Table 5.4 (which spreads across five pages) lists these nominal bases, with their derived INCH/FACT verbal predicates that can denote state-level stative and non-stative readings.⁴⁸

Nominal base	INCH derived stem	FACT derived stem
<i>ardidharra</i> ‘hot’	- <i>arda-dhə</i> ⁴⁹ ‘be/become hot, be/become heated, dry up’	- <i>ardharri-kə</i> - ‘make hot, heat up’

⁴⁸ As can be observed in Table 5.4, the final vowel (generally ə) often changes, depending upon the surrounding phonological environment (in this case, the following suffix). See van Egmond (2012, chapter 2) for discussion of this.

⁴⁹ Irregular nominal roots are marked in blue; nominal roots that take no formal INCH/FACT suffix (i.e. that take a Ø derivational suffix) are marked in red (most instances of this involve INCH derived nominal roots, whose final syllable is -dhə-, and thus may be explained by haplology).

<i>alyarrəngandha</i> ‘blaze (very hot)’	<i>-lyarrəngandhə-</i> ‘be/become hot (of fire)’	<i>-lyarrəngandhə-kwə-</i> ‘make hot (fire)’
<i>abilyarrngandha</i> ‘very hot’	<i>-abilyarrngandhə-</i> ‘be/become very hot’	
<i>awabilya</i> ‘warm’	<i>-wabilya-dhə-</i> ‘be/become warm, keep warm’	<i>-wabilya-kə-</i> ‘make warm’
<i>amurndadha</i> ‘cold’	<i>-murndadhə-</i> ‘be/become cold’	<i>-murndadhə-kə-</i> ‘be cold, become cold’
<i>amurrijungwa</i> ‘black, dark’	<i>-murrijungwa-dhə-</i> ‘be/become black’	<i>-murrijungwa-kə-</i> ‘make black’
<i>amurdha</i> ‘dark, very black’	<i>-abalthmurdhə-</i> ‘be/become dark’	
<i>alharrumurdha</i> ‘darkness, night’	<i>-lharrumurdhə-</i> ‘be/become dark, be/become night’	<i>-lharrumurdhə-kə-</i> ‘darken’
<i>alyarrngwilyilya</i> ‘at night’	<i>-lyarrngwalyilya-dhə-</i> ‘be/become night, be/become dark’	<i>-lyarrngwalyilya-kə-</i> ‘make night, make dark’
<i>lharruwura</i> ‘afternoon’	<i>-lharruwura-dhə-</i> ‘be/become afternoon’	
<i>arija=lhangwa</i> ‘last, later, afterwards’	<i>-ariji-dhə-</i> ‘be/become late, be last’	<i>-ariji-kə-</i> ‘make last, make late’
<i>arakba</i> ‘now, already, completed action’	<i>-arakba-dhə-</i> ‘time is here [now], time has come [already]’	
<i>miyalkwa</i> ‘low tide’	<i>-miyalkwa-dhə-</i> ‘be/become low tide, ebb’	
<i>alyangmandhukwuna</i> ‘true, honest, genuine’	<i>-lyangmandhukwuna-dhə-</i> ‘be/become true, be/become honest’	<i>-lyangmandhukwuna-kə-</i> ‘make honest’
<i>eningaba</i> ‘good’	<i>-eningaba-dhə-</i> ‘be/become good’	<i>-eningaba-kə-</i> ‘make good’
<i>awurrariya/ awurruwarriya</i> ‘bad, wrong, evil’	<i>-arriya-dhə-</i> ‘be/become bad, be/become spoilt’	<i>-arriya-kə-</i> ‘make bad, spoil, make a mistake, harm’

<i>əbardijena</i> ‘cruel, wicked’	<i>-əbardijena-dhə-</i> ‘be/become cruel, be/become wicked’	<i>-əbardijena-kə-</i> ‘make cruel, make wicked’
<i>eyekirrerra</i> ‘happy’	<i>-yekirrerri-dhə-</i> ‘be/become happy’	<i>-yekirrerri-kə-</i> ‘make happy’
<i>awanyirra</i> ‘tantrum, crying and shouting, silly’	<i>-wanyirri-dhə-</i> ‘throw tantrum, be/become silly, be/become crying and shouting’	
<i>bungkawa</i> ‘boss, ruler’	<i>-bungkawa-dhə-</i> ‘be/become ruler, rule, rule over, govern’	<i>-bungkawa-kə-</i> ‘make ruler’
<i>arrəbudha</i> ‘strong, powerful’	<i>-arrəbudhə-dhə-</i> ‘be/become strong, be/become powerful’	<i>-arrəbudhərr-kə-</i> ‘make strong’
<i>engbudha</i> ‘strong, powerful’	<i>-ngbudhə-dhə-</i> ‘be/become strong’	<i>-ngbudhərr-kə-</i> ‘make strong’
<i>amarngba</i> ‘brave, bold, tame’	<i>-marngba-dhə-</i> ‘be/become brave’	<i>-marngba-kə-</i> ‘make brave, make bold, make tame’
<i>alyangkadhawa</i> ‘fickle, inconsistent, unreliable’	<i>-lyangkadhawa-dhə-</i> ‘be/become fickle, not want to do (something), be/become uncooperative, be/become unreliable, be/become sulky’	
<i>akuwabarrngwarrngwa</i> ‘lazy’ (lit. heavy bodied)	<i>-kuwabarrngwa-dhə-/-</i> <i>kuwabarrngwarrngwa-dhə-</i> ‘be/become lazy’	
<i>enibəka</i> ‘crazy’	<i>-enibəka-dhə-</i> ‘be/become crazy’	<i>-enibəka-kə-</i> ‘make crazy’
<i>alyurkwa</i> ‘calm’	<i>-lyurkwa-dhə-</i> ‘be/become calm’	<i>-lyurkwa-kə-</i> ‘make calm, make peaceful’

<i>anyarrngwa</i> ‘calm, tame, well behaved’	<i>-nyarrngwu-dhə-</i> ‘be/become calm, be/become tame’	<i>-nyarrngwu-kə-</i> ‘tame, calm’
<i>abungwurra</i> ‘drunk, cranky’	<i>-bungwurrə-dhə-</i> ‘be/become drunk, be/become cranky’	
<i>aburadhəna</i> ‘be tired of’	<i>-ang+buradhə-</i> ‘be/get tired, not want to hear, turn a deaf ear’	
<i>ambuma</i> ‘deaf, tasteless, naughty’	<i>-ambuma-dhə-</i> ‘be/become deaf, be/become numb, be tasteless’	
<i>emimba</i> ‘blind’	<i>-mimba-dhə-</i> ‘be/become blind, shut eyes’	<i>-mimba-kə-</i> ‘shut eyes’
<i>angbilyuwa</i> ‘sickness’	<i>-angbilyuwa-dhə-</i> ‘be/become sick’	
<i>eberrkungwa</i> ‘pain, sickness’	<i>-eberrkungwa-dhə-</i> ‘be/become sick’	
<i>erremgurnirna</i> ‘paralysed, crippled’	<i>-rremgurni-dhə-</i> ‘be/become paralysed, be/become crippled’	
<i>kwurrirndina</i> ‘leprosy, scabies’	<i>-kwurrirndina-dhə-</i> ‘get leprosy/scabies, scratch, be scratchy’ ⁵⁰	
<i>ababərna</i> ‘many’	<i>-ababərna-dhə-</i> ‘be/become many’	<i>-ababərna-kə-</i> ‘increase’
<i>angkwulyumədha</i> ‘all, many, every’	<i>-angkwulyumədha-dhə-</i> ‘be/become many’	
<i>arəma</i> ‘big’	<i>-arəmə-dhə-</i> ‘be/become big, grow up’	<i>-arəmurri-kwə-</i> ‘make big, bring up (i.e. children)’

⁵⁰ This lexeme has been defined in the Anindilyakwa dictionary (whose data primarily comes from the 1970s-80s) as ‘to quarantine’, however consultants I worked with didn’t recognise this definition for this word.

<i>eyukwujiya</i> ‘little, small’	<i>-yukwujiya-dhə-</i> ‘be/become little, be/become decreased’	<i>-yukwujiya-kə-</i> ‘make small, decrease, shrink’
<i>adharrba</i> ‘short’	<i>-dharrbə-dhə-</i> ‘be/become short’	<i>-dharrbu-kwə-</i> ‘make short, round up, collect together’
<i>engmər̄ra</i> ‘fat’	<i>-ngmər̄rə-dhə-</i> ‘be/become fat’	
<i>angakbalhuwalha</i> ‘wide’	<i>-angakbalhuwalha-dhə-</i> ‘be/become wide’	<i>-angakbalhuwalha-kə-</i> ‘make wide’
<i>aringbirra</i> ‘wide’	<i>-ringbirra-dhə-</i> ‘be/grow big, be/grow wide’	<i>-ringbirra-kə-</i> ‘make wide, make clear (i.e. of road)’
<i>angwujira</i> ‘deep, hollow’	<i>-ngwujiri-dhə-</i> ‘be/become deep’	<i>-ngwujiri-kə-</i> ‘deepen, make hollow’
<i>akwudangwa</i> ‘near, close’	<i>-akwudangwu-dhə-</i> ‘be/become near’	<i>-akwudangwu-kə-</i> ‘make near’ <i>-akwudangwu-kə-jungwa</i> ⁵¹ - ‘draw oneself near’
<i>angwurrkwuruwura</i> ‘corner, bay, gulf’	<i>-ngwurrkwuruwu-dhə-</i> ‘curve, bend, be curved, be bent’	
<i>ayangkwuruwura</i> ‘curve, bend, crooked’	<i>-yangkwuruwu-dhə-</i> ‘be crooked, become crooked, change direction’	<i>-yangkwuruwurr-kə-</i> ‘make crooked, wring (e.g. wet clothes)’ <i>-yangkwuruwurr-kə-jungwa-</i> ‘curl up’
<i>adhərrbura</i> ‘straight’	<i>-dhərrbura -dhə-</i> ‘be/go straight, become straight, become right’	<i>-dhərrbura-kə-</i> ‘correct, explain, put straight, put right, weigh’
<i>akwurraka</i> ‘hard, difficult’	<i>-akwurrakə-dhə-</i> ‘be/become hard, be/become strong, be/become firm’	<i>-akwurrakə-kə-</i> ‘make hard, make strong, make firm’
<i>akilyarrba</i> ‘light’	<i>-kilyarrbu-dhə-</i> ‘be/become light, float’	<i>-kilyarrba-kə-</i> ‘lighten’

⁵¹ *-jungwa* REFL

<i>amungwunya</i> ‘soft’	<i>-mungwunya-dhə-</i> ‘be/become soft’	
<i>amurrkbalya</i> ‘soft, newborn baby’	<i>-amurrkbalyə-dhə-</i> ‘be/become soft’	<i>-amurrkbalyə-kə-</i> ‘make soft’
<i>enikadhuwa</i> ‘new’	<i>-enikadhuwa-dhə-</i> ‘be/become new’	<i>-enikadhuwa-kə-</i> ‘make new’
<i>enəngkwurakba</i> ‘old’	<i>-enəngkwurakba-dhə-</i> ‘be/become old’	
<i>wilyarra</i> ‘in the middle, centre, between’	<i>-wilyarra-dhə-</i> ‘be/become middle aged’	<i>-wilyarra-kə-</i> ‘separate, put in the middle’
<i>alhamukwarra</i> ‘murder’	<i>-lhamukwarri-dhə-</i> ‘be/become murderer, be/become killer’	
<i>angwurrkwarda</i> ‘sour, salty, bitter’	<i>-ngwurrkwarda-dhə-</i> ‘sting, sting/burn mouth’	
<i>awalyuwa</i> ‘ripe, cooked’	<i>-walyuwa-dhə-</i> ‘be/become ripe, be/become cooked’ (also: <i>-walyuwa-</i> ‘be/become ripe, be/become cooked’)	
<i>arukwa</i> ‘raw, uncooked’	<i>-rukwu-dhə-</i> ‘be raw, be uncooked’	
<i>engma</i> ‘bad, rotten’	<i>-ngman-dhə-</i> ‘be/go bad, rot’	
<i>amungkwurdha</i> ‘clean, clear’	<i>-mungkwurdhə-dhə-</i> ‘be/become clean, be clear’	<i>-mungkwurdhə-</i> ‘clean [something]’
<i>abiyiya</i> ‘murky, hard to see’	<i>-abiyi-dhə-</i> ‘be/become murky, become disturbed’	
<i>emənangka</i> ‘different’	<i>-məmangka-dhə-</i> ‘be/become different, be changed’	<i>-məmangka-kə-</i> ‘make different, change’
<i>eyebijeba</i> ‘separate’	<i>-eyebijeba-dhə-</i> ‘be/become separated’	<i>-eyebijeba-kə-</i> ‘separate’
<i>engburingka</i> ‘dry’	<i>-ngburingka-dhə-</i> ‘be/become dry’	<i>-ngburingka-kə-</i> ‘make dry’

<i>engkalya</i> ‘wet’	<i>-ngkalyi-dhə-</i> ‘be/become wet’	<i>-ngkalyi-kə-</i> ‘wet’
<i>eyarrirra</i> ‘quiet, peaceful’	<i>-lharriyarri-dhə-</i> ‘be quiet place, be/become peaceful’	
<i>akakərəma</i> ‘know’	<i>-akakərəma-dhə-</i> ‘get to know’	<i>-akakərəma-kə-</i> ‘teach’ <i>-akakərəma-kə-jungwa-</i> ‘learn’
<i>ekikamarra</i> ‘not know’	<i>-kikamarrə-dhə-</i> ‘not know’	
<i>eningma</i> ‘know’	<i>-eningmə-dhə-</i> ‘get to know, find out, know’	<i>-eningmə-kə-</i> ‘make known, teach’
<i>enəngbalha</i> ‘not know, ignorant’	<i>-enəngbalhə-dhə-</i> ‘not know’	<i>-enəngbalhə-kə-jungwa-</i> ‘know oneself unknowingly, deny, disbelieve’

Table 5.4 Nominal bases (denoting stage/individual-level stative properties), with derived INCH/FACT verbal predicates (denoting state-level stative and non-stative readings)

Nominal base denotes individual-level atomic property

While the majority of nominal INCH/FACT derived verbal predicates in Anindilyakwa can express both stage-level stative and non-stative (change-of-state) readings, there are several nominal bases that denote atomic predicates, and are unable to realise a stative reading in an INCH derived verb. This appears to be because these nominal bases can denote only individual-level properties, and given that INCH derived verbs are only capable of receiving stage-level readings, they are incompatible with a stative reading. Thus, in order to attain a stage-level reading of the derived verb, the stative predicate is coerced to denote a change-of-state predicate. This follows what Caudal et al (2012: 127) describes for Panyjima (non-Pama-Nyungan). The nominal bases can be grouped into two categories, depending upon whether they denote a locational property or not.

Nominal base denotes a (non-locational) atomic stable property

Nominal stems that denote atomic predicates, in INCH derived verb complexes, express a change-of-state reading, focusing on the result state of the event. The example of an INCH derived verbs of this type in Anindilyakwa, consists of an atomic, telic event concerning the change of state from dead to living ('X becomes alive'), as displayed in example (5.14) and Table 5.5.

- 5.14) *n-eniba-dhə-Ø=ma*
 REAL.3M-**alive**-INCH-USP=MUT
 'He came back to life' [speaker translation]
 (JL, JRB1-077-01, 00:44:54.310-00:44:57.730)

Nominal base	INCH derived stem	FACT derived stem
<i>eniba</i> 'alive, awake'	<i>-eniba-dhə-</i> 'become alive (again); come back to life'	<i>-enibə-kə-</i> 'save, make alive (again)'

Table 5.5 Nominal bases that denote an atomic property

Nominal base denotes a (locational) atomic property

Similarly, nominal stems that denote a locational argument, can form a complex change of location predicate with FACT derived verbs. This occurs with the nominal base *ariba* 'land', whose FACT derived verbal predicate indicates 'X goes ashore, X goes onto the land'. Rather than occurring with the INCH, it occurs with the FACT indicating the intransitive 'X go ashore' or with the FACT + CAUS to indicate transitive 'X make Y go ashore', as shown in Table 5.6.

Nominal base	INCH derived stem	FACT derived stem
<i>ariba</i> 'land'		<i>-riberr-kə-</i> 'go ashore' (int.) <i>-riberr-kə-ji-</i> 'make go ashore'

Table 5.6 Nominal bases that denote a (locational) atomic property

Nominal base denotes special kind of property associated with CoS

Nominal bases denoting nominal properties concerning personhood or stage of life, occur with only change-of-state readings with derived INCH verbs. As with the other nominal bases discussed in this section, these nominal bases can denote only individual-level properties, and so the stative predicate is coerced to denote a change-of-state predicate in the case of derived INCH verbs, as demonstrated in example (5.15) for the nominal base *neniyuwangkwa* ‘man’, and other bases of this type in Table 5.7.

- 5.15) *n-eni-wangkwa-dhə-Ø=ma*
 REAL.3M-M-**man**-INCH-USP=MUT
 ‘He became an old man’ [speaker translation]
 (JL, JRB1-077-02, 00:03:31.138-00:03:34.828)

Nominal base	INCH derived stem	FACT derived stem
<i>nenumamalya</i> ‘person’	<i>-enumamalyə-dhə-</i> ‘become human’	
<i>neniyuwangkwa/</i> <i>dhadhiyuwangkwa</i> ‘old man/woman’	<i>-yuwangkwa-dhə-</i> ‘become old, grow old’	
<i>neniyerringka</i> ‘old man’	<i>-enyerringka-dhə-</i> ‘become old (of men)’	

Table 5.7 Nominal bases that denote a special kind of CoS property

5.1.2 Type 2: Nominal base denotes a property of arguments

The second type of base stems are those nominal bases that, rather than expressing predicative properties, denote an argument of the event predicate contributed by the verbal derivation. There are only a small number of these types of stems in Anindilyakwa, with the majority of base stems belonging to the first type, expressing predicative properties.

Property of internal argument

These bases involve the base contributing an affected or created argument, e.g. *-lhəkira-kə-* ‘build, erect, raise [a house]’. The created argument can be the object argument, as is the case with the CAUS derivational marker, or the subject argument, with the INCH derivational marker (e.g. *-lhəkira-dhə-* ‘[a house] is built, raised’).

The base *ekirra* ‘name’ is similar to this, although it differs in that the argument created (the name) is relational to the direct object of the verb.

Nominal base	INCH derived stem	FACT derived stem
<i>alhəkəra</i> ‘building’	<i>-lhəkəra-dhə-</i> ‘be built, be raised’	<i>-lhəkəra-kə-</i> ‘build, erect, raise’
<i>ekirra</i> ‘name’; <i>emikirra</i> ‘named, called’		<i>-emikirra-kə-</i> ‘name’

Table 5.8 Nominal bases that denotes a property of an internal argument

There are two nominal bases that denote a result stage of an argument (*akalhara* ‘burnt off bush’; *arumba* ‘blister’), and the INCH/ FACT derived verb describes the process towards this eventual stage (e.g. ‘be alight, be burning [until it is burnt off bush]’).

The nominal base *abadakalya* ‘game, fun’ derives an object-related activity, *-abadakalya-dhə-* ‘play around, have fun’/*-abadakalya-kə-* ‘play around with [something/someone], tamper with [something/someone], tease, make laugh.

-kwulhənga-kə- ‘drive (boat, car, etc.) is derived from the nominal base *kwulhənga* ‘rudder, steering wheel’, which is a non-incremental theme object.

These nominal bases and their derived stems are displayed in Table 5.9.

Nominal base	INCH derived stem	FACT derived stem
<i>akalhara</i> ‘burnt off bush’	<i>-kalharə-dhə-</i> ‘be burning, be alight’	<i>-kalharu-kwə-</i> ‘burn, light’
<i>arumba</i> ‘blister’	<i>-arumbəna-dhə-</i> ‘spread (of fire), be burning, (fire) getting bigger’	

<i>abadakalya</i> ‘game, fun’	<i>-abadakalya-dhə-</i> ‘play around, have fun’	<i>-abadakalya-kə-</i> ‘play around with [something/someone], tamper with [something/someone], tease, make laugh
<i>kwulhənga</i> ‘rudder, steering wheel’		<i>-kwulhənga-kə-</i> ‘drive (boat, car, etc.)

Table 5.9 Nominal bases and their derived stems

Lexicalised verbal derivations

One base involved in a derived INCH form, *amarngkərra* ‘mind’, occurs in a lexicalised verbal derived form, in which the state *-marngkərra-dhə-* ‘be kind’ is inferred metaphorically from properties of the internal argument ‘mind’.

<i>amarngkərra</i> ‘mind’	<i>-marngkərra-dhə-</i> ‘be kind’	
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Table 5.10 Lexicalised verbal derivations

Verbal derivations without attested nominal bases

There are several INCH and FACT derived forms from which the nominal bases are not attested. These are listed in Table 5.11.

Nominal base	INCH derived stem	FACT derived stem
?	<i>-yangarrar-dhə-</i> ‘yell, shout’	<i>-yangarra-ji-</i> ‘make yell, make shout’
?	<i>-yengminja-dhə-</i> ‘be quiet, be silent’	<i>-yengminja-kə-</i> ‘stop, comfort’
?		<i>-karangkə-kə-</i> ‘make cross, exasperate’

?	<i>-lyandha-</i> ‘be painful, hurt, suffer’	<i>-lyandhə-kə-</i> ‘make suffer’
?	<i>-ngakbəkə-dhə-</i> ‘become strong (of wind), become rough (of sea)’	
?	<i>-wuldha-</i> ‘be just right, go well’	<i>-wuldhə-kə-</i> ‘make right’
?	<i>-ambudhə-dhə-</i> ‘be delayed, hesitate’	<i>-ambudhərr-kə-</i> ‘stop, hold up, prevent’
?	<i>-ngwunji-</i> ‘suck’	<i>-ngwunji-kə-</i> ‘suckle’
?	<i>-aburawa-dhə-</i> ‘come undone’	<i>-aburawa-kə-</i> ‘undo, untie, take off’
?	<i>-mungwurrardha-dhə-</i> ‘be dried up, be overcooked, be shrivelled up’	
?	<i>-lyi-dhə-</i> ‘be rubbed off’	<i>-lyi-rr-kwa-</i> ‘rub out’
?	<i>-lhawurra-dha-</i> ‘return, go back’	<i>-lhawurra-kə-</i> ‘bring back’ <i>-lhawurra-kə-ji-</i> ‘make return, pay back’
?	<i>-adharri-dhə-</i> ‘disappear’	<i>-adharri-ja-</i> ‘make disappear, submerge’
?	<i>-jerrə-dhə-</i> ‘be finished’	<i>-jerru-kwə-</i> ‘finish, waste, go through all’

Table 5.11 Verbal derivations without attested nominal bases

5.3 Summary

In considering Aktionsart/event structure properties, derivational morphology (with respect to the analysis of word meaning) is important to consider, particularly in relation to statives and inchoative change-of-state eventualities.

In Anindilyakwa there are two productive verbalizing suffixes which attach to nominal stems to form verb stems: the INCHOATIVE *-dhə-* and FACTITIVE *-kə-* ~ *-kwə-*. Such pairs of

inchoative/factitive verbs derived from a single stem have often been described in descriptions of Australian languages as forming general patterns of inchoative/causative alternation, with these alternations sometimes having been assumed to exhibit a special type of transitivity alternation (cf. Caudal, Dench & Roussarie 2012: 118). In Anindilyakwa, however, while FACTITIVE marked stems do always express change-of-state causation (i.e. never stative readings), INCHOATIVE marked stems have two readings available at their disposal: a change-of-state reading, as well as a stative reading (i.e. INCH derived verbs are not straightforwardly categorised as inchoative, but rather expressing transient state readings along with *bona fide* inchoative readings).

The ability for a nominal to take an inchoative change-of-state reading (in addition to a stative reading), and for a derived INCH verb stem to take a stative reading (in addition to an inchoative change-of-state reading), is dependent upon lexical properties of the stem. In order to understand the relationship between nominal stems and derived verb stems expressing stative and change-of-state readings, we must therefore examine the semantic properties of the nominal/derived verb stem.

Consequently, when we examine these derived INCH verb stems which display these two available (stative and inchoative change-of-state) readings, we find that those predicates describing stage-level properties (i.e. temporary, changeable, gradable properties) take both stative and change-of-state readings, while those expressing individual-level properties (i.e. permanent properties) can only take a change-of-state reading.

Thus, it is clear that there are regular lexical semantic properties that impose different readings with respect to the productive use of the INCH/FACT derivational markers. These two derivational markers should be viewed as stage-level eventualizers (cf. Caudal et al 2012: 120), but which show different semantic requirements on their inputs: INCH requires either stative or change-of-state stage-level predicate inputs, while FACT requires a change-of-state predicate input (cf. Caudal et al 2012) for a related discussion examining Panyjima (non-Pama-Nyungan)).

Following this examination of INCH/FACT derivational markers, we can provide a broad classification of Anindilyakwa base stems. I identify two main types of base stems: i) predicative property-denoting bases (those nominal bases that denote a property that is associated with the core meaning of an event predicate, including i) those nominal bases that, in INCH derived stems, can denote both stage-level stative or non-stative (change-of-state) readings; and ii) those nominal bases that denote individual-level atomic properties); and ii) those nominal bases that denote a property of some argument of the predicate (i.e. those

nominal bases that, rather than expressing predicative properties, denote an argument of the event predicate contributed by the verbal derivation).

Chapter 6

Inflectional tense/aspect marking

Anindilyakwa has an obligatory⁵² suffixal slot in the verbal template. This TAM suffix slot, along with the series of portmanteau prefixes (i.e. paradigms of two discontinuous slots of the verb template), express a range of different TAM categories. In this chapter, I examine temporal and aspectual properties expressed inflectionally through the combination of the REALIS portmanteau prefix + TAM suffix paradigm. I discuss the aspectuo-temporal properties of the phonologically overt (PAST and NON-PAST) T/A suffixes (in combination with the REALIS portmanteau prefix paradigm) in addition to examining the aspectuo-temporal properties realised through the REALIS portmanteau prefix + bare stem form (i.e. the absence of a phonologically overt form in the [+3] TAM slot, which I refer to as the ‘-Ø [TAM] marker’ or the ‘bare stem paradigm’ and gloss as USP (UNDERSPECIFIED) (i.e. temporally and aspectually underspecified).

This chapter focusses on past and present temporal expression. TAM properties involving the IRREALIS and DEONTIC portmanteau prefix series, which (in combination with the TAM suffix paradigm) express TAM categories involving futures and epistemic/deontic/dynamic modality are discussed in Chapter 9. The POTENTIAL suffix *-ya* is also discussed in this context in Chapter 9, given that it occurs only in combination with the

⁵² Given that the absence of a PAST/NON-PAST/POTENTIAL marker in this slot of the verbal template (-Ø) is contrastive and expresses particular aspectuo-temporal properties, I argue that this [+3] slot in the template is obligatory, rather than positing optional PAST/NON-PAST/POTENTIAL marking (*à la* Leeding 1989).

IRREALIS and DEONTIC portmanteau prefix paradigms (i.e. it is disallowed in combination with the REALIS portmanteau prefix series).

An important topic discussed in this chapter is the question of what triggers the temporal interpretation of inflectionally bare verb stems (i.e. phonologically \emptyset marked verbs). I argue that these inflectionally bare verb stems are temporally (as well as aspectually) underspecified, with the temporal interpretation realised through pragmatic inferences based on aspectual properties, as well as contextual factors and discourse structure (see §6.5).

Interesting descriptive and theoretical points explored throughout this chapter include: (i) the widespread aspectuo-temporal underspecification of the inflectional system, coupled with the widespread lack of contrastiveness in many of the paradigmatic forms (i.e. syncretism); (ii) the aspectuo-temporal properties of REALIS-V- \emptyset inflected verbs, which can be used as a diagnostic to identify Aktionsart/event structure properties of the language (see §4.3); and (iii) the implications of the aspectuo-temporal properties of REALIS-V- \emptyset inflected verbs, particularly considering literature relating to languages without overt tense marking (i.e. ‘tenseless languages’).

This chapter is structured as follows. §6.1 provides a brief background to relevant aspectuo-temporal literature and outlines the approach to tense and aspect that I follow. §6.2 provides a general overview of the inflectional tense/aspect system of Anindilyakwa, providing necessary background for the rest of the chapter. §6.3 compares the analysis presented in this chapter to previous analyses, demonstrating how this analysis differs and the particular areas that have been either overlooked or misanalysed by previous research. §6.4 focuses on the aspectuo-temporal expression of the phonologically overt (PAST/NON-PAST) TAM suffixes, while §6.5 turns to the bare stem paradigm (REALIS portmanteau prefix + the phonologically \emptyset slot of the [+3] slot), and the aspectuo-temporal properties it conveys. §6.6 puts the Anindilyakwa T/A system into context by comparing it with other Gunwinyguan languages, and §6.7 provides a summary of the chapter.

6.1 Tense and aspect preliminaries

This section outlines the terminology and approaches to tense, temporal reference and aspect that I follow in this thesis, before this is put into context by overviewing the Anindilyakwa aspectuo-temporal system in these terms in §6.2.

6.1.1 Temporal reference

Temporal reference, an empirical domain at the centre of much cross-linguistic research, concerns the temporal relation between the time at which an utterance is made and the time to which the utterance refers (Klein 1994). Following Klein (1994), temporal reference of an independent clause concerns a threefold distinction between the time at which a sentence is uttered (the utterance time (UT)), the time at which the situation is located (the situation time (TSit)), and the time about which the speaker makes a claim (i.e. the time about which an assertion makes a statement, an interrogative asks a question or an imperative issues a command (Bohnenmeyer 2009: 83) (the reference time, or topic time (TT)) (Mucha 2013: 189).

If we consider the history of linguistic research into the study of time and temporality, we find that the majority of this research has tended to focus on the grammatical expression of time (i.e. tense), and that tense has been assigned a key role in theories of temporal reference. This is, however, due mainly to the fact that that ‘the well-studied languages that have been the empirical focus of formal research on meaning are tensed languages’ (Tonhauser 2015: 130-1).

Thus, it is important to consider the distinction between the temporal reference of a clause, and tense (a grammatical means of expressing temporal reference, see §6.1.2). As is discussed below (overviewed in §6.1.2.1, and discussed in detail in §6.4.1), distinguishing between temporal reference and tense is necessary when examining temporal reference cross-linguistically, given that every language expresses temporal reference, but not all languages convey this temporal reference through inflectional tense marking (although see discussion regarding covert tense marking in §6.5.3.1). While languages exhibit variation with respect to whether temporal reference is expressed grammatically, temporal reference in all languages ‘is context dependent, anaphoric, and influenced by temporal adverbials’ (Tonhauser 2015: 149).

6.1.2 Tense

Tense is a ‘deictic-relational category of the verb, [which]... indicates a temporal relation between the situation described by the sentence and some deictically given time span. [T]his time span is usually the moment at which the sentence is uttered – the moment of speech, the utterance time, or the “now”’ (Klein & Li 2009: 42-3). Tense is also an anaphoric category, that requires a previously established temporal referent (Moens & Steedman 1988: 22).

Generally when we discuss tense, we refer to the tenses of ‘past’, ‘present’ and ‘future’. In cases of deictic tense these temporal reference points are in reference to the relation between the time of the situation and the time of the utterance, and for cases of anaphoric tense, they refer to the temporal relation between the situation time and a third point of reference – a vantage point from which the situation is observed (Klein & Li 2009: 44). Reichenbach (1947) labelled these three time intervals S (Speech Time) – the time at which the utterance is made, E (Event Time) – the time at which the situation takes place, and R (Reference Time) – a third temporal reference point. Klein (1994) uses similar terminology, referring to these points as time of utterance (TU), time of situation (TSit) and topic time (TT) respectively. I follow Klein’s terminology in this thesis.

Reichenbach’s ‘trinity of underlying times’, particularly his notion of the topic time involved in anaphoric temporal relations, has been very influential in subsequent analyses of tense and temporal reference. Reichenbach’s positional use of the topic time allows temporal adjuncts to establish a referent to which the topic time of a main clause and subsequent same-tensed clauses may attach or refer, similar to the manner in which noun phrases establish referents for pronouns and definite anaphors (Moens & Steedman 1988: 22).

It should be noted that tense doesn’t fully determine the temporal reference of an utterance; it doesn’t identify the topic time, but rather ‘only constrains the location of the topic time relative to the utterance time’ (i.e. ‘[t]ense alone locates only relationally’ (Smith 2008: 232)). Tense marking is generally paradigmatic and obligatory in finite clauses, while other means of marking temporal reference, such as the use of temporal adverbials, are not paradigmatic nor obligatory (Tonhauser 2015: 132).

6.1.3 Aspect

I follow a two-component theory of aspect, in the spirit of Smith (1991 [1997]), distinguishing between viewpoint aspect and Aktionsart/event structure aspect. We are primarily concerned with viewpoint aspect in this chapter (see Chapters 4 and 5 for discussion of Aktionsart/event structure aspect).

Viewpoint aspect is the grammatical marking of the speaker’s perspective of the event, which denotes how much of the event is made visible. It functions like the lens of a camera, making objects more or less visible to the receiver (Smith 1997: 61). I assume three broad semantic classes of aspectual viewpoints:

- i) imperfective viewpoints focus on an internal part of the situation. These viewpoints take most situations as their input, and focus on preparatory or inner ‘core’ stages (Caudal & Roussarie 2000: 364);
- ii) perfective viewpoints focus on the situation as a whole. They require their input situation to imply a change of state (CofS), in combination with some form of salient boundary (initial or final), and unless modified by e.g. an adverbial modifier, the focus remains on the inner ‘core’ stage of the input situation (Caudal & Roussarie 2000: 364);
- iii) resultative viewpoints focus on the result state of a situation. Input situations may or may not be bounded (depending on the specific resultative viewpoint) (Caudal 2012: 272; Caudal & Roussarie 2000: 364).

Languages differ in the organisation of their viewpoint aspectual systems (Smith 1997: 61). Information expressed by viewpoint aspect comprises its semantic meaning, which cannot be cancelled (Smith 1997: 62). In addition, pragmatic interpretation is important in contributing to the interpretation of viewpoints, where at the pragmatic level, ‘semantic meaning interacts with such factors as contrastive value, context, and rhetorical emphasis’ (Smith 1997: 61).

6.1.4 Underspecification

Further to the definitions provided in §§6.1.2-6.1.3, tense and aspect categories can be underspecified. Languages can display different types and degrees of underspecification. Of interest here, languages can show i) aspectually underspecified categories; ii) temporally underspecified categories; or iii) both aspectually and temporally underspecified categories.

With respect to aspectual underspecification, this is related to Smith (1991 [1997])’s notion of ‘neutral viewpoint aspect’, which allows for closed and open readings, but are not entirely unconstrained [for aspectual values]’ (Smith 1997: 78). Aspectually underspecified categories may retain (at least traces of) meanings they previously had (i.e. involving semantic layering (*à la* Hopper 1991)), and ‘therefore end up being underspecified hybrid tenses with slight (or not so slight) differences’ (Caudal 2012: 273).

6.1.5 *Segmented Discourse Representation Theory (SDRT)*

SDRT is a dynamic semantic theory in which ‘the complex interactions between semantic and pragmatic content can be studied in a rigorous and precise manner’ (Asher & Lascarides 2003: 37). It proposes that we can explain linguistic phenomena through a hierarchical analysis of rhetorical relations, which relate speech act referents⁵³ to one another in the discourse. These discourse relations are formally defined within an extended version of Discourse Representation Theory (Kamp & Reyle 1993). This theory has been employed in several studies on Australian languages, looking at tense-aspect expression (cf. Ritz, Dench & Caudal 2012; Schultze-Berndt 2012; Stirling 2012).

The basic premise behind this theory is that in any structured narrative, one utterance will follow another in an ordered manner, where each utterance is structurally related to those that surround it. This notion is based on the idea of *coherence*, where ‘a discourse is defined to be coherent only if each non-initial utterance makes an illocutionary contribution which connects it to some other contribution in the discourse context’ (Asher & Lascarides 2003: xv). So, for communication to be successful, a speaker needs to communicate their intended information effectively, in a logical and consistent manner. If the speaker does not do so, the narrative no longer makes sense, and the communicative intent of the speaker fails, and the receptive uptake by the hearer, fails.

One important means by which this coherence is conveyed in a narrative is through temporal progression. While some narratives (such as formal narratives in the style of written or ‘storytelling’ narratives) might be linear and follow a temporal progression that mimics that of real life; often this is not the case, with narratives presented in a non-linear fashion. For instance, a speaker may decide some important point of the story is best to introduce earlier in the narrative, even though chronologically it may not happen until later on, or it might be necessary to provide some background contextual information. Such chronological deviations from a linear temporal progression thus must be explained in some way so that the listener understands the time-line. This expression of temporal ordering may not be implied by grammatical tense-aspect inflections, but may rather be related to the inherent boundedness of utterances in relation to one another (Collins 2015: 37). Analysing narratives within this SDRT

⁵³ I.e. which correspond to ‘discourse segments’, denoting different kinds of grammatical elements, including simplex utterances, complex utterances, NPs/PPs (via anaphora), etc.

approach thus allows us to better understand how this temporal coherence is maintained at the discourse level.

As has been suggested above, it is the relationship between utterances that conveys a coherent narrative to the listener. These links between discourse segments are described as rhetorical or discourse relations (DRs) within SDRT. There are different kinds of DRs, which convey certain properties regarding the structure of the narrative, specifically relating to the relationship between discourse segments and temporality expressed between them. We can represent this as $R(\alpha, \beta)$, which indicates that there is a discourse relation (R) that links a new discourse segment (β) to the discourse context by attaching it to the preceding discourse segment (α) (Caudal 2012: 282). These DRs are relevant given that some of them lead to temporal inferences (Ritz et al 2012: 46).

In the core architectural organisation of SDRT, there is a distinction between the *logic of information content* (LIC) (i.e. very broadly ‘what is said’: the logical form of clauses and of discourse), and the *logic of information packaging* (LIP) (i.e. the pragmatic processes necessary to establish discourse structure). Thus the LIP determines discourse relations, which in turn become part of segmented discourse representation structures (SDRSs) (Caudal 2012: 283).

Asher & Lascarides (2003) introduce many DRs for linking discourse segments in narratives, some of which are less useful for analysing temporal progression. Some of the DRs that will be valuable in this study include NARRATION, BACKGROUND, ELABORATION, CONTINUATION, RESULT and EXPLANATION.

In the typical chronological development of a narrative, discourse utterance units will move along the story from one point to another, with each new discourse segment expressing a new eventuality. These discourse segments are linked with NARRATION DRs. When utterances provide contextual or background information about what was happening when an eventuality took place, this β unit is related to the α unit by the BACKGROUND DR. When a particular eventuality in the narrative gets expanded upon further, the β segment providing these further details about α is linked by an ELABORATION DR; this DR doesn’t move the narrative forward chronologically, however it is a single, standalone unit, with its own predicates and argument structure. In some sections of a narrative, new discourse segments will provide reiterations and repetition of what has already been said, without providing any new information. In these cases, the two segments would be linked by CONTINUATION DRs. If a segment β arises as a result of the eventuality expressed by α , these are linked by the DR RESULT. When information in segment β provides an explanation for the eventuality expressed in segment α these discourse

segments are linked by the EXPLANATION DR. In these cases the eventuality by β must have occurred prior to the eventuality expressed by α (Asher & Lascarides 2003). Let us examine the following two examples to consider some of these DRs further.

6.1) Max fell. John helped him up

6.2) Max fell. John pushed him

Here, the temporal structures of (6.1) and (6.2) are different; with the order in which the events occur matching their occurrence in the discourse in (6.1), but not in (6.2). Both examples have identical tense forms and aspectual classes, so their ‘compositional semantic forms are insufficient for distinguishing their interpretations’ (Asher & Lascarides 2003: 6). Therefore information distinct from the order of sentences, their syntax and their compositional semantics is used to understand their temporal structures, which Asher & Lascarides (2003: 6) propose is inferred through world other contextual knowledge, used to compute discourse relations in the LIP.

In example (6.1) we can observe that the two discourse segments are related by NARRATION, as opposed to in (6.2) which is linked by a different rhetorical relation, EXPLANATION. This NARRATION DR links discourse segments sharing a common topic, creating a structurally equal relationship between discourse segments α and β , in which neither discourse segment contains information that is more semantically salient than the other. NARRATION displays Grice’s maxim of manner, ‘be orderly’, and connects together two discourse segments denoting events that happen in temporal order. As such it is understood that the first discourse segment actually temporally precedes the second. Additionally, discourse segments linked by NARRATION cannot be separated by significant spatio-temporal gaps (Asher 1996), which means that ‘the temporal inference involves a relation of overlap between the post-state of a first event and the pre-state of a second one, the two being related by NARRATION as shown by the axiom below, where O represents the relation of temporal overlap’ (Ritz et al 2012: 46).

$$\text{Narration } (\alpha, \beta) \rightarrow \text{post}(e_\alpha) \text{ O } \text{pre}(e_\beta),$$

This NARRATION DR is illustrated in Anindilyakwa in Figure 6.1.

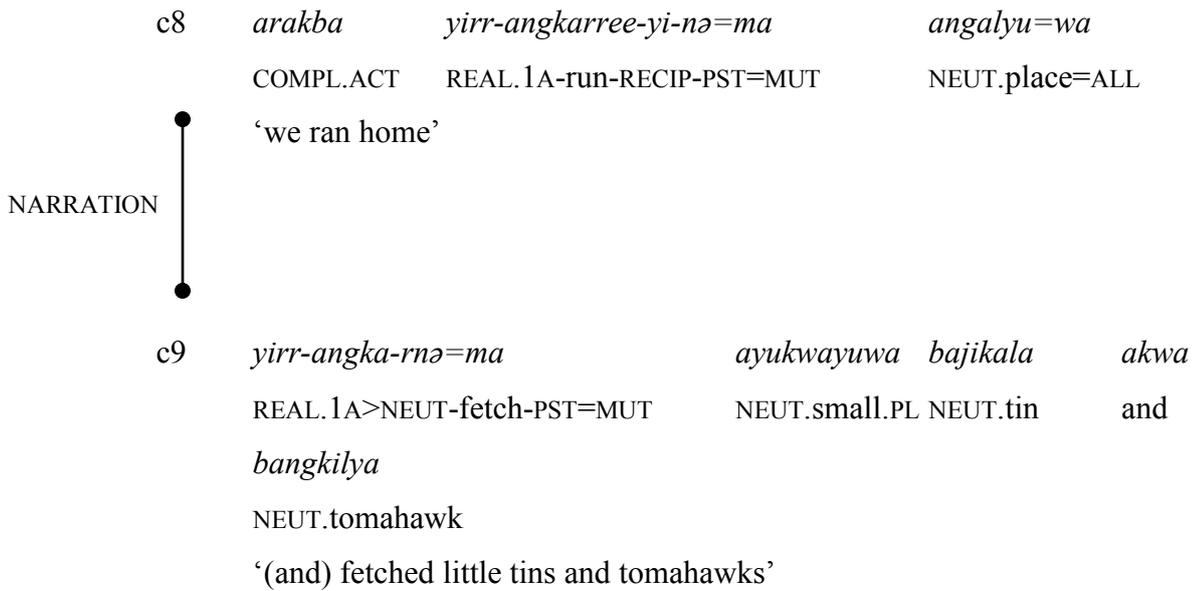


Figure 6.1 NARRATION discourse segments

Two other important DRs in terms of temporal progression are BACKGROUND_{forward} and BACKGROUND_{backward}. One discourse segment provides information about the background in which the eventuality of a second occurred. There must be a common topic that holds between the two, and they must overlap temporally (Asher & Lascarides 2003). BACKGROUND_{forward} and BACKGROUND_{backward} are differentiated from one another by the sequence of the discourse units in each relation (Caudal 2012: 285).

This DR is demonstrated in Figure 6.2, where CI-59 provides background information prior to the beginning of the chronological events within the narrative. The following discourse segment, CI-60, then provides the first main event taking place in the discourse.

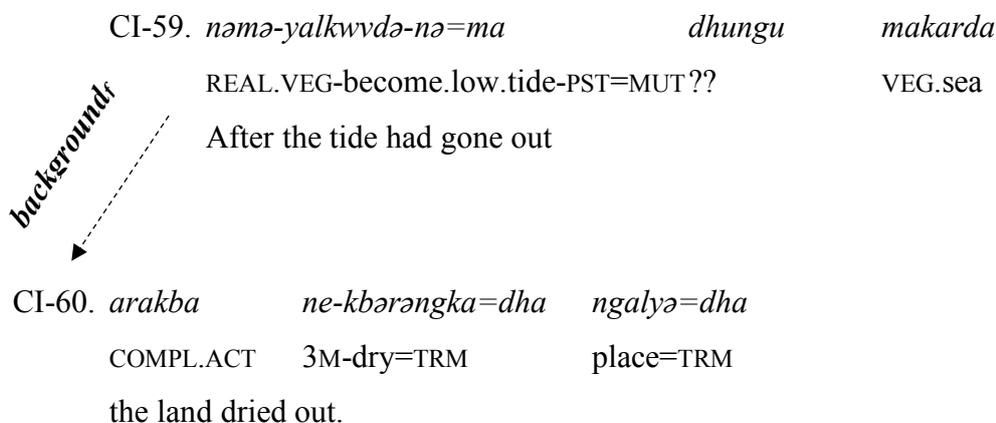


Figure 6.2 BACKGROUND_{forward} discourse segments between CI59-CI60 (AIATSIS A3368a, 00:03:20-00:03:23)

6.2 An introduction to the Anindilyakwa tense/aspect inflectional system

TAM expression is realised through combining (at least) two obligatory, discontinuous morphological slots of the verbal template; paradigms of portmanteau prefixes and TAM suffixes, as demonstrated by a simplified rendering of the verbal template below (for the full verbal template (and further discussion of this topic), see §2.3).

portmanteau.prefix(TAM₁)-prefixes-VERB.STEM-derivational.suffixes-TAM₂=*ma~mər*=case

A key inflectional distinction in the marking of the temporal anchoring of a situation in Anindilyakwa is made through paradigms of REALIS portmanteau prefix + TAM suffix vs. IRREALIS portmanteau prefix + TAM suffix. REALIS portmanteau prefix + TAM suffix paradigms express past and present temporal reference, while IRREALIS portmanteau prefix + TAM suffix paradigms are involved in future temporal reference, as well as modal readings involving epistemic, deontic and dynamic modality. This is overviewed in Table 6.1.

Portmanteau prefix	Verb stem	TAM suffix	Temporal reference
REALIS-	Verb.Stem	-NON-PAST	Present
		-PAST	Past
		-∅	Present/Past
		-POTENTIAL	*
IRREALIS-		-NON-PAST	Future
		-PAST	Past
		-∅	Past/Future
		-POTENTIAL	Future
DEONTIC-		-NON-PAST	Future
		-∅	Future
		-PAST	*
		-POTENTIAL	Future

Table 6.1 Temporal reference expressed by pronominal prefix + TAM suffix paradigms (in positive polarity contexts)

This chapter is concerned with those paradigms involving the REALIS portmanteau prefix series + TAM suffix, and thus temporal reference of past and present. Inflectional paradigms involving the modal series of pronominal prefixes (IRREALIS, as well as the DEONTIC) are discussed in Chapter 9.

6.2.1 Tense and temporal reference

One of the key objectives of this chapter is to consider how temporal reference is expressed in Anindilyakwa. Anindilyakwa has a temporal system consisting of (obligatory) inflectional verbal morphology (as well as optional temporal marking through, e.g. temporal adverbials).

Temporal reference can be expressed overtly via inflectional means, through paradigms of portmanteau prefixes and TAM suffixes. The REALIS portmanteau prefix + the phonologically overt PAST T/A suffix restrict the reference time to occurring before the utterance time, and the REALIS portmanteau prefix + the NON-PAST T/A suffix restricts the reference time to occurring simultaneous to the utterance time (see §6.4.1 for further discussion). While TAM suffixes in combination with the REALIS portmanteau prefix series are restricted to expressing a non-future temporal reading (i.e. expressing the reference time as being simultaneous to or before the utterance time), for paradigms involving the IRREALIS portmanteau prefix series + TAM suffixes, there is no such restriction (i.e. past and future reference times can be expressed). Paradigms involving the modal suffix (POTENTIAL), which is incompatible with the REALIS prefix series, are restricted to expressing only situations in which the temporal reference located is after the utterance time. Inflectional marking involving the IRREALIS portmanteau prefix series and the POTENTIAL modal suffix is examined in Chapter 9.

In addition to the phonologically overt T/A markers, verbs can occur with no phonologically overt form in the [+3] slot of the verbal template, and for these verbs I argue temporal reference is inferred through Aktionsart/event structure aspect properties, in addition to discourse structural parameters (see §6.5.3)⁵⁴.

⁵⁴ Similar temporal systems to this, in which both overt aspectual viewpoint suffixes, as well as zero-marked verb words, expressing zero, neutral viewpoint (which is flexible in its aspectuo-temporal interpretation) have been reported in other languages, such as Navajo (Smith et al 2007: 57).

6.2.1.1 Temporal distinctions denoted by inflectional morphological marking

Temporally, the Anindilyakwa inflectional T/A system lacks contrastiveness in many of its paradigmatic forms, displaying fairly widespread syncretism, which can obscure the identification of temporal contrasts. While the PAST and NON-PAST markers themselves encode a past/non-past temporal distinction (in combination with a portmanteau prefix), the form of these markers is often neutralised (with the result that the two markers are both realised with an identical form word-finally) due to morpho-phonological processes (see §6.3.1.3). Verbs that take a -Ø realisation in the [+3] verbal template slot take their temporal interpretation according to Aktionsart/event structure properties of the verb (see §6.5.3.2 for further details), in addition to discourse structural parameters.

Thus, in terms of temporal distinctions marked by the inflectional tense-aspect system, we can recognise different broad levels of temporal distinction, summarised in Table 6.2 (and examined in greater detail in §§6.4-6.5).

Form	Temporal reading
Ø	A temporally underspecified category, whose temporal properties are predictable depending upon the Aktionsart/event structure of the verb, pragmatic reasoning and discourse relations.
PST/NPST (word final)	While for some conjugation classes (classes 2-5), the PST/NPST markers unambiguously mark a past vs. non-past distinction, for class 1 verbs (which contain the largest percentage of Anindilyakwa verbs (~61%)), this distinction is neutralised (- <i>na</i> for both PST and NPST) when the TAM marker is in word final position.
PST/NPST + = <i>ma</i> ~= <i>mər</i> ra (or + a case/spatio- temporal/discourse clitic)	The temporal readings of class 1 PST/NPST markers can be specified when followed by the = <i>ma</i> ~= <i>mər</i> ra clitic, thus overtly distinguishing between, e.g., - <i>nəma</i> (PST) vs. - <i>nama</i> (NPST).

Table 6.2 Temporal distinction of T/A inflectional markers

One of the most striking aspects of the inflectional T/A system of Anindilyakwa, and something that is important to highlight and explore throughout this chapter, is the highly syncretic nature of many of the T/A markers, and the resulting lack of contrastiveness in many of the form/meaning pairings. This is in addition to a lack of semantic specificity of the T/A forms (which is especially apparent with the -Ø marker). It is the combination of both of these properties that has made previous research on the Anindilyakwa T/A system a difficult enterprise, resulting in many different analyses (discussed further in §6.6).

Given this lack of overt inflectional temporal distinction, many Anindilyakwa sentences appear without overt temporal information, with sentences occurring without a phonologically overt inflectional tense/aspect marker, or without a temporal particle or adverb. In these contexts, I suggest that both Aktionsart/event structure properties, in addition to discourse structural parameters, provide the necessary infrastructure to express the temporal framing of the situation (see §6.5.3).

6.2.2 *Viewpoint aspect*

Anindilyakwa does not have a strong inflectional viewpoint aspect system. The PAST and NON-PAST are aspectually underspecified, and the -Ø marker is aspectually (as well as temporally) underspecified. When -Ø occurs in combination with the REALIS portmanteau prefix series⁵⁵, -Ø expresses perfective aspectual readings with non-stative situations, and ongoing present interpretations with stative situations. The aspectuo-temporal semantics of this inflectional system is examined in greater detail in §6.5.3.

6.3 This analysis in comparison to previous analyses of the Anindilyakwa T/A system

The inflectional TAM system of Anindilyakwa has received many different analyses by scholars over the past 40 years, particularly in regard to the aspectual properties expressed by the TAM suffixes, and the disputed role the =*ma*~=*mər*ra marker plays in TAM expression.

Reid, Stokes & Waddy (1983) distinguished only two categories; a Past tense vs. Non-past tense distinction. They noted the -Ø marker in examples they provide, but gloss this simply as an ‘unidentified verbal suffix’.

⁵⁵ For discussion of verbal paradigms involving modal portmanteau prefixes (IRREALIS and DEONTIC) and the -Ø TAM marker, see Chapter 9.

Stokes (1984) posits further distinctions, identifying a ‘normal present’, a ‘future/imperative’ (which covers both the $-\emptyset$ marker and the *-ya* suffix), a ‘normal past,’ and a ‘punctiliar past’ (the $-\emptyset$ marker).

Under Leeding’s (1989) analysis, all tenses are optional. She distinguishes a past tense and non-past tense marker, which are purely temporal in nature. Aspect, she suggests, is expressed both through the $-\emptyset$ marker, and the *=ma~mər̄ra* marker. Under her analysis the $-\emptyset$ marker can express perfective aspect (but is also ambiguous with any tense/aspect reading, due to the possible omission of optional tense markers). She claims imperfective aspect, on the other hand, is marked through the *=ma~mər̄ra* marker, of which she posits two forms: *-ama ~ -amər̄ra* for non-past imperfective and *=ma~mər̄ra* for past imperfective. Thus, under Leeding’s analysis, tense marking can be marked twice in the inflectional system, through the past/non-past tense markers, and the *=ma ~ mər̄ra* imperfective marker.

Heath (n.d.) and van Egmond (2012) claim aspectual distinctions in both past and non-past, positing two past tense categories (P1 and P2) and two non-past tense categories (NP1 and NP2). Heath (n.d.) describes these as a ‘punctual’ vs. ‘continuous’ aspectual distinction (similar to the way he analyses the inflectional suffixes in Wubuy (cf. Heath 1984), where he gives the impression that these categories align with a perfective/imperfective aspectual distinction, although is not explicit about this), while van Egmond suggests that the P1 and NP1 categories express ‘atomic’ aspect (a category that she suggests marks a non-scalar, instantaneous changes-of-state, containing no internal subparts (van Egmond 2012: 197)), and that the NP1 and NP2 are aspectually ‘neutral’. van Egmond’s NP1 encompasses both the $-\emptyset$ marker and the (POTENTIAL) *-ya* suffix.

Table 6.3 provides a brief summary of these different previous analyses of the tense/aspect system (in comparison to the analysis proposed in this thesis).

	NON-PAST	$-\emptyset$	PAST	<i>=ma~mər̄ra</i>
Reid, Stokes & Waddy (1983); Waddy (n.d.)	Non-past tense	Unidentified verbal suffix	Past tense	Statement of fact

Stokes (1984)	Normal present	Future/imperative (also including - <i>ya</i> suffix)	Punctiliar past	Normal past	Statement of fact
Leeding (1989)	Non-past tense (<i>optional</i>)	Ambiguous between i) perfective aspect; and ii) any T/A reading (due to omission of optional tense suffix)		Past-tense (<i>optional</i>)	Imperfective aspect+tense (<i>optional</i>)
Heath (n.d.)	Non-past Continuous	Non-past Punctual	Past Punctual	Past Continuous	‘meaningless’
van Egmond (2012)	Neutral non-past	Atomic non-past (also including - <i>ya</i> suffix)	Atomic past	Neutral past	First person fossilisation marker

Table 6.3 Summary of previous tense-aspect analyses

In summary, previous analyses in the Anindilyakwa literature have differed both in terms of the number of T/A categories proposed (with between two to four categories given by different scholars (including the use of the =*ma~*=*mər*ra marker as an imperfective marker by Leeding (1989))) and also in terms of the semantic properties that these categories cover.

Throughout this chapter, I demonstrate that my analysis supersedes these previous analyses, showing in particular that:

- i) the aspectuo-temporal distinctions proposed by Heath (n.d.) and van Egmond (2012) are not supported;
- ii) the -*ya* suffix proposed by some scholars as a tense/aspect marker (cf. Stokes n.d.-b; van Egmond 2012) is in fact involved in modal expression (see Chapter 9);
- iii) the =*ma~*=*mər*ra marker is not a tense/aspect marker (*contra* Leeding (1989)) (although it interacts with TAM properties of the verb) (see §2.5);
- iv) rather than the phonologically -Ø T/A marker being ambiguous between two readings (a perfective aspectual reading, and any T/A reading, due to omission of an optional tense suffix (*à la* Leeding (1989))), it interacts with the Aktionsart/event structure of the verb, with perfective aspectual readings predictable based on the Aktionsart/event structure properties of the verb and

context (i.e. pragmatic reasoning and discourse effects) (thus readings are predictable and systematic rather than ambiguous).

6.4 Phonologically overt T/A suffixes: REALIS+PAST and REALIS+NON-PAST verbal paradigms

6.4.1 Temporal expression

The inflectional paradigm comprising the REALIS portmanteau prefix + PAST (-*nə*, -*rnə*, -*ngə*~*-nga*, -*wa*, -*Ø*) suffix expresses past temporal reference (i.e. indicating that the topic time occurred before the time of utterance), while the paradigm comprising the REALIS portmanteau prefix + NON-PAST (-*na*, -*rna*, -*ja*) suffix expresses present temporal reference (i.e. indicating that the topic time occurs at the time of utterance). For paradigms involving the DEONTIC portmanteau prefix, temporal reference is always after the time of utterance, and for paradigms involving the IRREALIS portmanteau prefix, temporal reference is after the time of utterance, unless in complex conditional/counterfactual structures (see §10.1). The focus of this chapter, however, is REALIS inflected verbs, and the distinction between past and present temporal reference. Future temporal reference, and IRREALIS/ DEONTIC portmanteau prefix + TAM suffix paradigms are examined in detail in Chapter 9.

6.4.1.1 Past temporal reference

REALIS portmanteau prefix + PAST TAM suffix paradigms express situations that occur before the time of speech, i.e. where the topic time occurs prior to the time of utterance (TT < TU) (cf. Klein 1994). This includes both recent (e.g. examples (6.3) – (6.6)), and distal past events (examples (6.7) – (6.8)).

- 6.3) *adhuwaba* *dh-akəna* *dhədharrəngka*
today 3F-that 3F.woman
yingu-rəngandha-ngə=ma *akəna* *bread*
REAL.3F>NEUT-cut.up-PST=MUT NEUT.that NEUT.bread
‘The woman cut up/was cutting up the bread today’ [author translation]
(JL, JRB1-038-01, 00:03:17-00:03:27)

- 6.4) *yarrungkwa n-aka nenangkwarba nə-mebi-nə=ma*
yesterday 3M-this 3M.man **REAL.3M-sing-PST=MUT**
emeba
NEUT.song
‘The man was singing yesterday’ [author translation]
(JL, JRB1-023-01, 00.07.52)
- 6.5) *yarrungkwa ngayuwa nəngə-bekə-nə=ma tea=a*
yesterday 1.PRO **REAL.1-drink-PST=MUT** tea=PF
‘I was drinking tea yesterday’ [speaker translation]
(JL, JRB1-023-01, 00.13.00)
- 6.6) *yarrungkwa n-akəna nenangkwarba*
yesterday 3M-that 3M.man
n-əmədhilyakbə-nə=ma amadhilya
REAL.3M-cough-PST=MUT NEUT.mucus
‘The man was coughing yesterday’ [author translation]
(CW, JRB1-037-01, 00:30:34-00:30:42)
- 6.7) *arakbə+wiyā n-akəna nenangkwarba*
COMPL.ACT+QUANT 3M-that 3M.man
nə-rangandha-ngə=ma akəna bread=a
REAL.3M>NEUT-cut.up-PST=MUT NEUT.that NEUT.bread=PF
angk-ababərn=lhangwa
time-many=ABL
‘The man used to cut up the bread all the time’ [author translation] [in
response to the prompt: ‘I want to say long time ago there was this man, and
he was cutting up bread, all the time’]
(JL, JRB1-038-01, 00:05:12-00:05:23)
- 6.8) *arakbə+wiyā n-akəna nenangkwarba*
COMPL.ACT+QUANT 3M-that 3M.man
ni-jura-ngə=ma akwa
REAL.3M>NEUT-push-PST=MUT and

ni-njurrkwa-ja-Ø=ma *akəna* *fridge*
 REAL.3M>NEUT-move-CAUS-Ø=MUT NEUT.that NEUT.fridge
 ‘The man pushed and moved the fridge a long time ago’ [author translation]
 (JL, JRB1-038-01, 00:09:22-00:09:32)

6.4.1.2 Present temporal reference

Present temporal reference is expressed by the REALIS portmanteau prefix + NON-PAST TAM suffix paradigms⁵⁶, i.e. indicating that the time of utterance is simultaneous to the topic time (TU ⊆ TT) (cf. Klein 1994). This is demonstrated in examples (6.9) – (6.11). In addition, REALIS-V-NPST marking can be used to express gnomic and habitual readings, and express a variety of other aspectual readings (i.e. it is underspecified for viewpoint aspect, see §6.3.2.2. for further discussion).

6.9) *n-aka* *nenəngkwarba* ***nanə-lhəwrəngkə-na=ma***
 3M-this 3M.man REAL.3M>3M-kiss-NPST=MUT
nenukwe-nik=manja
 3M.son-3M.KIN=LOC
 ‘The man is kissing his son’ [author translation]
 (ST, JRB1-037-01, 00:03:20-00:03:26)

6.10) *n-akəna* ***nu-ngwurrubalhi-ji-na=ma***
 3M-that REAL.3M>NEUT-open-CAUS-NPST=MUT
 ‘The man opens it’ [author translation]
 (ST, JRB1-037-02, 00:04:39-00:04:42)

6.11) *n-aka* *nenəngkwarba* ***nə-mebi-na=ma***
 3M-this REAL.3M.man REAL.3M-sing-NPST=MUT
 ‘The man is singing’ [speaker translation]
 (JL, JRB1-023-01, 00.07.20-00.07.30)

⁵⁶ IRREALIS prenominal prefix + NON-PAST TAM suffix paradigms, on the other hand, express future temporal reference. See Chapter 9 for discussion of inflectional marking involving the IRREALIS.

It acts as a case marker when suffixed to nominals, marking case functions of proprietive ('having'), privative ('lacking, not having') and comitative ('with'), and grammatical instrumental case (which introduces a participant to the verb) (van Egmond 2012: 289). Attached to verbs, in independent clauses the *=ma~mər̩ra* marker is involved in situating the speaker's and the addressee's epistemic perspectives with regard to an event, while in dependent clauses it is used as a dependent clause marker, obligatorily following the [+3] TAM slot in relative clauses, and occurring before some case markers to express t-complementising case in subordinate clauses. Additionally, the *=ma~mər̩ra* clitic can occur as a discourse clitic, used for emphasis and topicalisation. See §2.5 for a comprehensive discussion of the multifunctional *=ma~mər̩ra* clitic.

In addition to these syntactic and discourse functions of *=ma~mər̩ra*, I suggest that this morph may be co-opted as a device to disambiguate the temporal reference of minimally temporally distinguished inflectional TA markers (something first suggested by Heath (n.d.: 8-1)). Specifically, I suggest *=ma~mər̩ra* can be used in the disambiguation of neutralised PAST and NON-PAST tense markers. As mentioned in §6.1.1, for class 1 verbs (which constitute ~61% of Anindilyakwa verbs), the distinction between the PAST and NON-PAST suffixes (*-nə* and *-na* respectively) is neutralised when word final (i.e. both being realised as *-na*). In order to mark explicitly the distinction between *-nə* and *-na*, an additional suffix must follow; either *=ma~mər̩ra*, a case marker or a clitic.

Thus, I argue that the *=ma~mər̩ra* clitic can be used as a disambiguation device to distinguish between neutralised tense markers. This is made more apparent by the fact that speakers regularly reiterate a verb form with the *=ma~mər̩ra* clitic attached, after first providing the verb without the *=ma~mər̩ra* clitic (thus without the temporal specification). This was found to be particularly common in elicitation sessions, when speakers wished to clarify an utterance they had previously given⁵⁷. An example of this with the past tense can be observed in the previous example (6.12), where the verb was uttered initially with only the PAST marker (in final word position, thus being realised as *-na* (rather than the underlying *-nə*)) before being reiterated with the *=ma* clitic, which unambiguously specified the tense marker as the PAST (*-nə=ma*). A similar occurrence, but with the NON-PAST, can be observed in example (6.13).

⁵⁷ This distribution also follows the primary epistemic stance use of *=ma~mər̩ra*, to mark symmetrical access to information (i.e. mutual knowledge) from the perspective of the speaker. Repeated information, which is in the common ground, is therefore often marked with the *=ma~mər̩ra* 'mutual knowledge' marker. See §2.5.1 for further discussion.

- 6.13) *n-aka* *nenəngkwarba n-arrkərre-na-*
 3M-this 3M.man REAL.3M-draw-NPST-
n-arrkərre-na=ma *mamudhang=manja akwa*
 REAL.3M-draw-NPST=MUT VEG.sand=LOC and
n-arrangalhi-jungu-na=ma *akwa nə-mebi-na=ma*
 REAL.3M-itch-REFL-NPST=MUT and REAL.3M-sing-NPST=MUT
 ‘The man draws in the sand, scratches, and sings’ [author translation]
 (JL, JRB1-023-01, 00.34.37)

6.4.2 Aspectual properties of the PAST and NON-PAST suffixes

The phonologically overt T/A suffixes (PAST and NON-PAST) are aspectually underspecified. Situations marked with these T/A markers can be both open or closed, determined largely by Aktionsart/event structure aspect, context and world knowledge.

Previous analyses, particularly Heath’s (n.d.), have suggested that these markers express an imperfective aspectual viewpoint, stating that the PAST and NON-PAST markers express ‘continuous’ aspectual readings, as in examples (6.14) and (6.15).

- 6.14) *na-ruk-w-ulyəke-na* *m-akəna* *makarda*
 REAL.3A-body-spin-PST VEG-that VEG.sea
 ‘It was spinning around in the sea’ [source translation]
 (NW, A3368a Side1, a1.1 Chasm Island, 00.01.33)

- 6.15) *əribəriba=ka* *nuw-akadha-ngee=ka*
 keep.on=EMPH REAL.NEUT-make.own.sound-PST=EMPH
enəng-angk-awura
 NEUT.ALPH-times-alone
 ‘It kept on crackling towards us all the time’ [author translation]
 (GL, A3369a Side 1 a3.4, Bujikeda ‘Mother cat’)

However, as was pointed out by van Egmond (2012), the PAST marker can also be involved in perfective readings, as demonstrated in examples (6.16) and (6.17).

6.16) *narr-am-angka-rnə=ma* *m-akəna=dha*
REAL.3A.OBJ-VEG.SUBJ-fetch-PST=MUT **VEG-that=TRM**
 ‘The sea reached them’ [source translation]
 (NW, A3368a Side1, a1.1 Chasm Island, 00.02.48)

6.17) *əmba wurru-kwala=ba na-jungwee-yi-na*
 and **3A-some=EMPH** **REAL.3A-die-RECEP-PST**
 ‘But others died’ [source translation]
 (NW, A3368a Side1, a1.1 Chasm Island, 00.02.56)

In addition, the PAST marker can be involved in resultative viewpoints (focussed on the result state that holds), as in example (6.18).

6.18) *nəngk-ena yirra-rrəngka-Ø=ma arakba*
 2-this **REAL.1>2-see-PST=MUT** **COMPL.ACT**
nganyangwa=mərra menba, akwa nəng-eningma arakba
 1.PRO.POSS=INST **VEG.eye** and **1-know** **COMPL.ACT**
nəngk-eniba ngəwa nəngk-ena
 2-alive continue 2-this
 ‘Now that I have seen you with my own eyes and I know that you are still
 alive [I am ready to die]’
 (Bible Society in Australia 1992: 392)

In combination with the IRREALIS portmanteau prefix series, the NON-PAST suffix is again involved in the expression of both perfective and imperfective viewpoint readings in the future, as in examples (6.19) and (6.20). Future temporal readings, involving the IRREALIS portmanteau prefix paradigm, are discussed in Chapter 9.

6.19) *biya kənu-wardu-wardemi-na n-akəna*
 and.then **IRR.3M-REDUP-cry.out-NPST** **3M-that**
 ‘He will keep on crying out’ [source translation]
 (van Egmond 2012: 200)

- 6.20) *nganyangwa nabə-rraka kəni-yedhe-na=ma adhənuba*
 1.PRO.POSS 3M.son-1.KIN IRR.3M-arrive-NPST=MUT in.short.time
 ‘My son will arrive soon’ [author translation; prompt: ‘My son will arrive soon’]
 (JL, JRB1-044-01, 00:11:37-00:11:44)

Therefore, PAST and NON-PAST suffixes should be analysed as being underspecified for aspect, showing a threefold perfective/imperfective/resultative under-determinacy. These aspectual properties are examined in detail below, in §§6.3.2.1-6.3.2.2.

Perfective vs. imperfective viewpoint distinctions have been claimed for many Gunwinyguan languages, similar to those that have been previously claimed for Anindilyakwa (see Table 6.5 for a comparison of TA suffixes across Bininj Kunwok, Ngalakgan, Rembarrnga, Ngandi and Wubuy; and see §6.5 for discussion of aspectuo-temporal properties of TA inflections of Wubuy and Ngandi, in comparison to Anindilyakwa). However, for at least some of these languages, similar to what has been demonstrated for Anindilyakwa, some of these analyses have also been shown to be in need of re-examination. In Ngandi, for example, Heath (1978) proposed an inflectional TA marker (‘past continuous’) that expresses imperfective viewpoint aspect (akin to the PAST marker in Anindilyakwa, previously also analysed as an imperfective past marker). However in more recent research, Collins (2015: 94) suggested instead that this marker is better analysed as an aspectually underspecified category, given that in addition to imperfective viewpoint situations, of which it is primarily associated with, it can also occur with perfective viewpoint aspectual readings. These findings across multiple languages further highlights the need for in-depth, systematic research into TAM categories in Australian languages, and how widespread assumptions (e.g. assumed widespread semantic properties of an inflectional marker across languages of the same language family) can’t be applied without thorough examination and verification from the data.

6.4.2.1 REALIS+PAST

The PAST marker, in combination with the REALIS paradigm, can be employed to express meanings across the aspectual spectrum, covering perfective, imperfective (including habitual and continuous/progressive/iterative readings), and resultative viewpoint readings. These different aspectual possibilities are examined in §6.3.2.1.1 (perfective and imperfective viewpoint readings) and §6.3.2.1.2 (resultative viewpoint readings).

6.4.2.1.1 *Perfective and imperfective readings*

Perfective viewpoint aspect refers to marking a sentence as presenting a situation as a whole (i.e. that the span of the perfective includes both the initial and final endpoints of the situation) (Smith 1997: 66).

Imperfective viewpoint aspect, on the other hand, refers to the marking of only a part of a situation referred to, with no information provided about its endpoints (i.e. the imperfective spans an interval that is internal to the situation) (Smith 1997: 73). Imperfective viewpoint aspect covers habitual and general imperfective readings expressing situations that are ongoing in nature (variously described in the literature as progressive/continuous/durative aspect, depending upon the Aktionsart/event structure properties of the predicate).

As mentioned above, the PAST marker is aspectually underspecified, being able to express both past perfective and imperfective viewpoint aspect. Past perfective viewpoint aspect readings are available with all dynamic situations. Past imperfective viewpoint readings cover both habitual and progressive/continuous/durative readings (i.e. there is no inflectional means of distinguishing between habitual vs. progressive/continuous/durative readings in the language).

In the following sections, I examine and demonstrate aspectual readings of various verb types displaying different Aktionsart/event structure aspect properties: (i) stative situations; (ii) dynamic, non-atomic events; and (iii) telic, atomic events.

Statives

Stative situations, being unbounded situations without any inherent endpoint, express imperfective readings (both general imperfective readings (expressing continuous/progressive/durative aspectual distinctions) as well as habitual readings) when marked with the PAST. Stative predicates expressing general imperfective readings, covering continuous/progressive/durative aspectual interpretations, are demonstrated in examples (6.21) – (6.23)⁵⁸.

⁵⁸ It should be noted that many stative verbs in Anindilyakwa fall into the class 6 verb conjugation class, whose system of inflectional TA marking is different to other verb conjugation classes, employing stem alternation to mark aspectuo-temporal distinctions rather than inflectional suffixes (see §2.3.4.2.1 for further discussion). Thus, while the overt PAST marker can be observed expressing the past continuous reading with the verb *-alkaya-* ‘stand’ in example (6.23), in examples (6.21) and (6.22), stem alternation of the verb stem marks these verbs (*-ambily-* ‘stay’) as past.

- 6.21) *arakba wurr-akəna Larringwumanja=lhangwa angalya*
 COMPL.ACT 3A-that place.name=ABL NEUT.place
abərra=lhangwa nuw-ambilyu=mərra wurr-akəna
 3A.PRO=ABL REAL.3A-stay.PST=MUT 3A-that
Larringwumanja m-adhiringwarna=manje=ka medhirra
 place.name VEG-big=LOC=EMPH VEG.cave
yakwujina ngəwa nuw-ambilyu=ma,
 there continue REAL.3A-stay.PST=MUT
nuw-ambilyu=ma wurr-akinu:::=wa
 REAL.3A-stay.PST=MUT 3A-that.XTD=PL
 ‘Now they all stayed at Larringumanja, that was their place and there was a
 big cave there. And they all stayed there and kept on staying in that cave’
 [source translation]
 (BBB, A3369b Side1, a4.3 Ngayawuma-langwa)

- 6.22) *yingu-wara-Ø raja, nanga-kwa-Ø anhənga*
 REAL.3F-refuse.to-USP NEUT.rice REAL.3M>3F-give-PST NEUT.food
angakəna-mərriya yilyakwa, yimumarnda
 whats.it.called-the.rest MASC.sugarbag MASC.freshwater.turtle
ying-ayiji-na nenga-beka-ju-wa cup=mərra
 REAL.3F-stand-PST REAL.3M>3F-drink-CAUS-PST NEUT.cup=INST
tea yingu-bekə-na, neni-yemin-jema-Ø
 NEUT.tea REAL.3F-drink-PST REAL.3M.DU-REDUP-do-PST
nen-amb-ambilyu:::=wa, nenu-mungkwula
 REAL.3M.DU-REDUP-stay.PST.XTD=PL REAL.3M.DU-sleep.PST
 ‘She didn’t want it [the rice] and so he gave her the food and the sugarbag and
 water turtles and she ate it and gave her a cup of tea and she drank the tea.
 They both kept on staying there and both went to sleep’ [source translation]
 (BB, A3370a Side1, a5.8 Diyaburaka-langwa)

- 6.23) *abərr-aja nuw-alkaya-ngə=ma ngəwa⁵⁹,*
 3A.PRO-CofR REAL.3A-stand-PST=MUT continue

⁵⁹ However, note the involvement of the *ngəwa* ‘continue’ particle.

and iii) where the perfective does not apply to statives at all (e.g. Russian, Mandarin Chinese and Navajo).

Statives marked with the PAST marker do not take perfective viewpoint readings in Anindilyakwa. However, in some contexts statives can be coerced to take inchoative or inceptive readings (but without positing any reference regarding the endpoint of the situation)⁶⁰. Narrative structure, discourse relations (DRs) and world knowledge are used to infer aspectual and temporal information. Example (6.25), for example, demonstrates two states that are shown as successive to one another, through the combination of the *Narration* discourse relation and the clause combining particle *akwa* ‘and’.

6.25)	<i>akəna</i>	<i>door=a</i>	<i>na-ngwədhəngmə-nə=ma</i>	<i>akwa</i>
NARRATION	●	NEUT.that	NEUT.door=PF REAL.NEUT-be.open-PST=MUT	and
	●	<i>na-dhəka-jungu-nə=ma</i>	REAL.NEUT-close-REFL-PST=MUT	
		‘The door <u>was open</u> , and it <u>was closed</u> ’ [speaker translation]		
		(JL, JRB1-023-01, 00.02.16) ⁶¹		

The speaker here is describing a scenario in which a door was open for a short period of time, and then closed for a short period of time (but makes no reference to the action of the door becoming closed). These are two successive situations, but the ‘boundedness’ of the situations are not explicitly expressed. While both situations are stative and marked with the PAST marker, it is the combination of (i) the coordination of the two clauses with the clause combining particle *akwa* ‘AND’⁶², (ii) the *Narration* discourse relation, and (iii) world knowledge, that is sufficient to express this sequence of these two stative situations, which occur one after the other. The *Narration* discourse relation implies that the discourse segments, denoting the two situations of ‘being open’ and ‘being closed’, occur in a temporal order such that the first segment is understood to temporally precede the second.

⁶⁰ Additionally, the aspectuo-temporally underspecified -Ø TAM marker, which (when combined with the REALIS portmanteau prefix paradigm) takes perfective viewpoint readings when expressing past temporal readings, is incompatible with the past expression of statives (i.e. statives with REAL-V-Ø marking don’t take past temporal readings) (see §6.5.3).

⁶¹ Stimuli: EDED video, 2013 series, no. 6.

⁶² The clause combining particle *akwa* ‘AND’ itself does not express the sequential nature of two clauses, unlike the sequential *biya* ‘AND.THEN’ clause combining particle, which stresses the sequence of situations expressed.

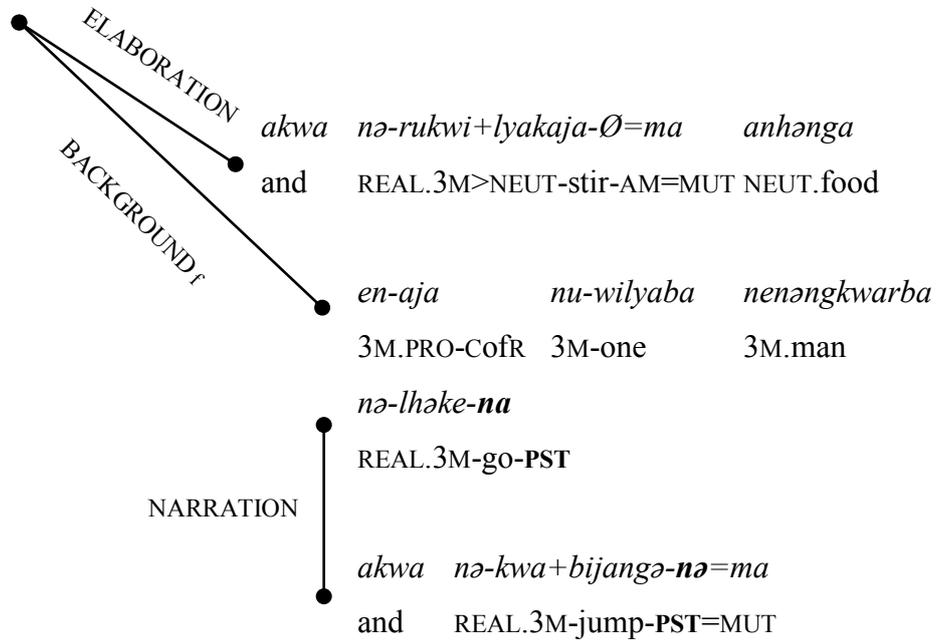
Non-atomic dynamic events

As already mentioned, the PAST marker, in combination with a person + REALIS/IRREALIS/DEONTIC portmanteau prefix, can express both perfective and imperfective aspectual readings with non-atomic, dynamic events. Although REALIS/IRREALIS/DEONTIC-V-PAST marking occurs more frequently with imperfective viewpoint readings, both perfective and imperfective aspectual readings can be expressed (i.e. the marker is aspectually underspecified), as demonstrated for non-atomic (atelic) dynamic events in examples (6.26) – (6.28). In all three of these examples, the first discourse segment provides background information that holds during the occurrence of following discourse segments, while in subsequent discourse segments, REALIS-V-PAST marked verbs express perfective viewpoint readings. (6.26) describes a situation where one man is lying on the floor grinding up some food, during which a second man appears and jumps once; (6.27) describes a situation where one man is continuously jumping up and down, during which another man runs past; and (6.28) describes a situation where one man is continuously knocking on a door, during which another man runs past. In these three examples, the speaker describes a perfective event that occurs during an on-going (imperfective) atelic situation, with both the on-going situation and the perfective event marked with REALIS-V-PAST marking.

If we examine example (6.26) in particular, the first two discourse segments are connected through the ELABORATION discourse relation, with the second segment providing these further details with respect to the first segment. These both provide background information about what was happening when the eventuality contained in the the following discourse segment took place. The verbal predicates of all of these are marked with REALIS-V-PAST inflections⁶³.

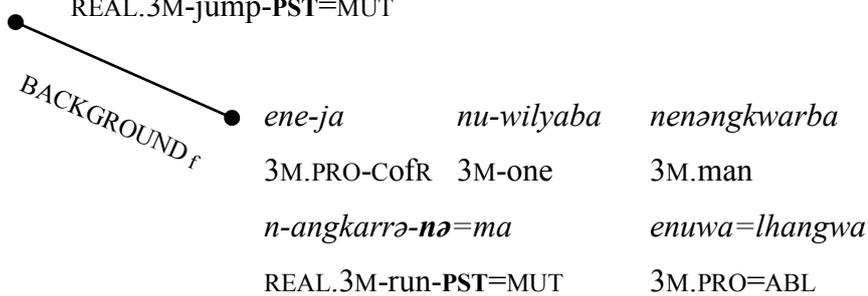
⁶³ Aside from *-rukwi+lyakaja-* ‘stir’, which takes the Ø AM suffixal marking. See §3.3.2.3.2 for further discussion.

6.26) *yarrungkwa nu-wilyaba nenangkwarba nə-murrkulhə=ma*
 yesterday 3M-one 3M.man REAL.3M-lie.down.PST=MUT
eni=lhang=ma murrkwa
 3M.PRO=POSS=INST VEG.stomach



‘Yesterday one man was lying on his stomach stirring the food, and another man went along and jumped’ [author translation]
 (CW, JRB1-032-01, 00.21.23-00.22.05)⁶⁴

6.27) *yarrungkwa n-akəna nenangkwarba n-ərribərriiba*
 yesterday 3M-that 3M.man 3M-keep.on
nə-kwə+bijangə-nə=ma
 REAL.3M-jump-PST=MUT



‘[Yesterday one man was jumping, and other man,] he was running’ [speaker

⁶⁴ Stimuli: EDED video, 2013 series, no. 54.

translation]

(CW, JRB1-032-01, 00.36.26)⁶⁵

- 6.28) *yarrungkwa n-akəna nenəngkwarba n-ərribərriba*
 yesterday 3M-that 3M.man 3M-keep.on
nə-nok-əm-dha-ŋə=ma door=manja
 REAL.3M>NEUT-knock-TRVSR-BLI-PST=MUT NEUT.door=LOC
- *ene-ja nu-wilyaba nenəngkwarba*
 3M.PRO-CofR 3M-one 3M.man
n-angkarrə-nə=ma enuwa=lhangwa
 REAL.3M-run-PST=MUT 3M.PRO=ABL
- *BACKGROUND_f*

‘Yesterday one man was knocking on the door, and another man ran past’ [author translation]

(CW, JRB1-032-01, 00.45.49)⁶⁶

Similarly, REALIS-V-PAST inflected verbs involved in expressing non-atomic, telic events can take both perfective and imperfective aspectual viewpoint readings. Example (6.29), for instance, demonstrates a REALIS-V-PAST inflected verb phrase (‘peeling a potato’), in which completion of the event is expressed (with the verb *-alkuwayiju-* ‘peel’ taking REALIS-V-PAST inflection, and accompanied by the verb *-jarrək-* ‘finish’ (also marked with REALIS-V-PAST), overtly specifying the completion of the event). In contrast, example (6.30) shows the same verb phrase, also taking REALIS-V-PAST inflection, but here expressing an imperfective viewpoint reading; the event of ‘the woman hitting the man on the head’ occurs during the event of ‘peeling the potato’.

- 6.29) *n-akəna nenəngkwarba num-alkuwayiju-wa m-akəna*
 3M-that 3M.man REAL.3M>VEG-peel-PST VEG.that
budida akwa nəmə-jarrək-Ø=dha
 VEG.potato and REAL.3M>VEG-finish-PST=TRM

⁶⁵ Stimuli: EDED video, 2013 series, no. 58.

⁶⁶ Stimuli: EDED video, 2013 series, no. 60.

‘The man finished peeling the potato’ [author translation]

(JL, fieldnotes, 01/07/2019)

- 6.30) *n-akəna* *nenəŋkwarba num-alkuwayiju-wa=manja*⁶⁷ *m-akəna*
3M-that 3M.man REAL.3M>VEG-peel-PST=LOC VEG.that
budida, *dh-aka dhədharrəŋka* *yingənə-lyang-burra-nga*
VEG.potato 3F-this 3F.woman REAL.3F>3M-head-hit-PST
ena=lhangwa=manja arəŋka
3M.PRO=POSS-LOC NEUT.head

‘While he was busy peeling that potato, this woman came along and hit him on the head’ [speaker translation]

(JL, fieldnotes, 01/07/2019)

Further to examples (6.26) – (6.29), examples (6.31) – (6.33) demonstrate further on-going general imperfective aspectual readings that can be expressed by non-atomic, dynamic predicates.

- 6.31) *n-angkarrə-nə=ma*
REAL.3M-run-PST=MUT
‘He was running’ [speaker translation]
(JL, JRB1-024-01, 00.20.07)⁶⁸

- 6.32) *n-akəna* *nenəŋkwarba* *nəma-lharrma-ŋə=ma*
3M-that 3M.man REAL.3M>VEG-do.all.day-PST=MUT
mamawura *ni-jara-ŋə=ma*
VEG.day REAL.3M>NEUT-push-PST=MUT

‘The man was pushing the fridge all day long’ [author translation] [in response to the prompt: ‘how about with this one as well, we wanted to say he was doing this one all day, yarrungkwa, from when he woke up to when he went to

⁶⁷ The case clitic =*manja* occurs here to indicate the temporal relation between the clitic-marked ajointed clause with the main clause, expressing simultaneity of the two events. See §8.1 for further discussion.

⁶⁸ Stimuli: EDED video, 2013 series, no. 31.

bed he was pushing the fridge’]
 (JL, JRB1-038-01, 00:10:29-00:10:37)⁶⁹

- 6.33) *yarrungkwa n-aka nenəngkwarba nə-mebi-nə=ma*
 yesterday 3M-this 3M.man REAL.3M-sing-PST=MUT
emeba
 NEUT.song
 ‘The man was singing yesterday’ [author translation]
 (JL, JRB1-023-01, 00.07.52)⁷⁰

Given that REALIS-V-PAST is aspectually underspecified, REALIS-V-PAST inflected verbs can take imperfective readings, as displayed in examples (6.26) – (6.29) and (6.31) – (6.33), depending upon contextual and discourse structural properties. However, in order to explicitly express imperfective readings, other devices can be employed. For example, while (6.33) can express an imperfective reading of the event *-mebi-* ‘to sing’, this is can be made more explicit through devices such as verbal reduplication (example 6.34), prosodic lengthening (example 6.35), and the use of aspectual particles or adjectives (examples (6.34) – (6.36)). These are discussed in detail in §7.1, §7.2 and §§7.3-7.4 respectively.

- 6.34) *n-ərribərriba nə-meb-mebi-nə=mərri*
 3M-keep.on REAL.3M-REDUP-sing-PST=MUT
 ‘He kept on singing’ [author translation]
 (ST, JRB1-037-01, 00:05:56-00:06:01)⁷¹

- 6.35) *nenəngkwarba n-i:::bərriba nə-mebi-na emeba*
 3M.that 3M-XTD.keep.on REAL.3M-sing-PST NEUT.song
 ‘He kept on singing’ [author translation]
 (CW, JRB1-037-01, 00:06:05-00:06:08)⁷²

⁶⁹ Stimuli: EDED video, 2016 series, no. 17.

⁷⁰ Stimuli: EDED video, 2013 series, no. 9.

⁷¹ Stimuli: EDED video, 2013 series, no. 9.

⁷² Stimuli: EDED video, 2013 series, no. 9.

- 6.36) *n-aka* *nenəngkwarba nə-mebi-nə=mər̥ra* *akən*
 3M-this 3M.man REAL.3M-sing-PST=MUT NEUT.that
emeba *n-ərribərriba* *n-enəng-angkwawura mayuwanəma maməwura*
 NEUT.song 3M-keep.on 3M-M.ALP-one.day ?? VEG.day
 ‘He sang all day’ [speaker translation]
 (ST, JRB1-037-01, 00:05:15-00:05:27)⁷³

Given that in Anindilyakwa there is no formal distinction made in the marking of general imperfective aspectual readings (as displayed in examples (6.30) – (6.36)) as compared to habitual readings, REALIS-V-PAST can thus also express habitual readings, as in (6.37) – (6.39).

- 6.37) *akəna* *akəna* *Amalyigba,* *akəna* *adhaka*
 NEUT.that NEUT.that place.name NEUT.that NEUT.usual.place
angalya *wurrarumuruma=lhangwa* *Amalyigba,* *akinu=wa*
 NEUT.place 3A.old.people=ABL place.name NEUT.that=ALL
nuwa-lhə-lhəke-nə=mər̥ra *Amalyigba=wa*
 REAL.3A-REDUP-go-PST=MUT place.name=ALL
na-mər̥ndukwu-nə=ma *warnumamalya* *engka=lhangwa*
 REAL.3A-gather.together-PST=MUT 3A.people another=ABL
iya *engka=lhangwa* *angalya*
 and another=ABL NEUT.place
 ‘That’s it, Amalyigba was usual place for the old people, they used to go to Amalyigba, the people used to gather up there from different places’ [source translation]
 (WB, A3370b Side1, a6.7 Amalyigba Sacred Area-langwa)

- 6.38) *wurdarriya+wiya* *ne-yengbe-yi-nə=ma*
 morning+QUANT REAL.COLL-speak-RECIP-PST=MUT
warnəngəmilhəkadhukwaka *wurrə-dharrəngka* *na-lhəke-nə=ma*
 COLL.honey.eater 3A-women REAL.3A-go-PST=MUT
adhalyəma=wa *narrəma-ma-ngə=ma* *milhikadhuwa*
 NEUT.river=ALL REAL.3A>VEG-take-PST=MUT VEG.burrawang.dampers

⁷³ Stimuli: EDED video, 2013 series, no. 9.

‘When the honeyeaters started singing in the morning, the women used to go down to the river and collect the burrawang dampers’ [source translation]
(NW, B14 Side1, b14.10 Warningumilikaduwakba-langwa)

- 6.39) *warnumamalya nuw-alyəbarə-nə=ma amamamuwa*
 3A.people REAL.3A-eat-PST=MUT NEUT.round.object
amanhənga
 NEUT.food
 ‘People used to eat the fruit [of the *emirruwa*]’ [source translation]
 (Groote Eylandt Linguistics 1993: 6)

REALIS-V-PAST marking can occur with verbs expressing both culminating and non-culminating telic events. REALIS-V-PAST does not entail that the eventuality was completed (i.e. the final endpoint does not have to be visible) (compare examples (6.40) and (6.41)). This is discussed in §4.3.2.1.

- 6.40) *wurr-akəna wurrə-dharrəngka narrə-dhaka-Ø*
 3A-that 3A-woman REAL.3A>NEUT-cook-PST
narrə-dhaka-Ø=ma arndhərrba
 REAL.3A>NEUT-cook-PST=MUT NEUT.water.lily.roots
yandhə+lhangwa n-awalyuwa-dhə-Ø=ma
 until REAL.NEUT-cooked-INCH-PST=MUT
 ‘Those women cooked the water lily for a long time, until it was cooked’
 [speaker translation]
 (JL, JRB1-082-02, 00:05:45.994-00:06:18.739)

- 6.41) *wurr-akəna wurrə-dharrəngka narrə-dhaka-Ø=ma*
 3A-that 3A-woman REAL.3A>NEUT-cook-PST=MUT
arndhərrba a-warnk-amiyerra akena nara ambaka
 NEUT.water.lily.roots NEUT-DIM-long.time but NEG later
kaw-alyuwadhə-na
 IRR.NEUT-be.cooked-PST
 ‘Those women cooked the water lily for a long time, but it still wasn’t cooked’

[author translation]
 (JL, JRB1-082-02, 00:04:41.534-00:04:59.934)

Atomic events

Unsurprisingly, REALIS-V-PAST marking occurs with atomic telic predicates to express perfective aspectual readings. Examples (6.42) and (6.43) demonstrate the use of the PAST with these situations, expressing the perfective actions of throwing a rock and piercing a paper bag, respectively.

6.42) *yarrungkwa n-errikba-y-nə=ma malharra*
 yesterday REAL.3M>VEG(?)-throw-RECIP-PST=MUT VEG.rock
 ‘He threw the rock yesterday’ [author translation]
 (ST, JRB1-029-03, 00.12.32)

6.43) *n-adhər̥ra-ngə=ma akəna jurra*
 REAL.3M>NEUT-pierce-PST=MUT NEUT.that NEUT.paper
lyelyinga=ma
 MASC.knife=INST
 ‘He pierced the paper with a knife’ [author translation]
 (ST, JRB1-037-01, 00:22:36-00:22:41)⁷⁴

Atomic telic predicates inflected with REALIS-V-PAST marking can express imperfective aspectual readings only by coercing iterative readings (i.e. repeated iterations of the event for the duration of the period of time in question). This is demonstrated in examples (6.44) – (6.47).

6.44) *ngalh-aja arakba yinginu-mər̥ndaku-warda-nga*
 3F.PRO-CofR COMPL.ACT REAL.3F>MASC-many-kill-PST
yinginu-wurraka-burra-ngə=ma ngarningka
 REAL.3F>MASC-many-pile.up-PST=MUT again
yingə-kalharrke-na angwura angerriba akena

⁷⁴ Stimuli: EDED video, 2013 series, nos. 41 and 39

REAL.3F>NEUT-light.a.bushfire-PST NEUT.fire to.over.there NEUT.that
ngarningka yinginu-mərndaku-warda-nga
 again REAL.3F>MASC-many-kill-PST
 ‘She was killing lots of animals and piling them up. Again she lit a bushfire
 and kept on killing bluetongue lizards and goannas’ [source translation]
 (NW, B19 Side1, b19.1 Dubudekbuda-kiya-langwa)

6.45) *n-aka nenəngkwarba ni-yen-jəm-Ø ngəw*
 3M-this 3M.man REAL.3M-REDUP-do-PST continue
n-a:::dhərri-ŋ=m akən jurr=dha
 REAL.3M>NEUT-XTD.pierce-PST=MUTNEUT.that NEUT.paper=TRM
 ‘The man kept on stabbing the bag’ [author translation]
 (ST, JRB1-037-01, 00:23:50-00:23:56)

6.46) *n-aka nenəngkwarba nə-kw-ajey=ma*
 3M-this 3M.man REAL.3M-half(?)-be.upright.PST=MUT
maməru=manja akena nunmurray arəngka biya
 VEG.time=LOC but ?? NEUT.head and.then
na:::lhəka-rna bi nu-kw-ajey=ma
 REAL.3m.XTD-go-PST and.then REAL.3M-half(?)-be.upright.PST=MUT
n-ebəlhəwandə-nə=m, nu-kw-ajey=ma,
 REAL.3M-squat?-PST=MUT REAL.3M-half(?)-be.upright.PST=MUT
n-ebəlhəwandə-nə=m ni-yen-jəm-Ø ngəwa
 REAL.3M-squat?-PST=MUT REAL.3M-REDUP-do-PST continue
n-ərribərriba angkw-ababərna=m ngəwa
 REAL.3M-keep.on time-many=EMPH continue
ne-yen-jama-Ø
 REAL.3M-REDUP-do-PST
 ‘The man kept on standing up and squatting down’ [author translation] [in
 response to the prompt: ‘so if you were a story teller, and wanted to tell that
 story’]
 (ST, JRB1-037-01, 00:37:45-00:38:09)⁷⁵

⁷⁵ Stimuli: EDED video, 2016 series, no. 8.

- 6.47) *yarrungkwa n-akəna nenəngkwarba*
 yesterday 3M-that 3M.man
nu-rangandha-ngə=ma akə- akəna bread=a
 REAL.3M>NEUT-cut.up-PST=MUT NEUT.that NEUT.bread=PF
angkw-ababərn=lhangwa
 time-many=ABL
 ‘The man was cutting up the bread yesterday’ [author translation] [in response to the prompt: ‘we want to say, yeah *nəngarəngdhanguma*, the whole day from when he got up to when he went to bed, he was just cutting up bread’] (JL, JRB1-038-01, 00:04:40-00:04:51)⁷⁶

Similarly, habitual readings involving REALIS-V-PAST marked atomic telic predicates also result in iterative interpretations, as in examples (6.48) and (6.49).

- 6.48) *arab-ərabə+wiya dh-akəna dhədharrəngka*
 REDUP-COMPL.ACT+QUANT 3F-that 3F.woman
yingənə-marrakaja-Ø=ma n-akə nenəngkwarba akən
 REAL.3F>3M-grab-PST=MUT 3M-that 3M.man NEUT.that
ayika
 NEUT.tree
 ‘The woman used to grab the stick from that man all the time’ [author translation] [in response to the prompt: ‘and if he used to do that a long time ago, whenever her husband walked past her she would snatch that stick from him’] (ST, JRB1-037-02, 00:16:30-00:16:43)⁷⁷

- 6.49) *n-aka nenəngkwarba angkw-ababərn=lhanga*
 3M-this 3M.man time-many=ABL
n-adhərri-ngə=ma akəna jurra eken
 REAL.3M>NEUT-pierce-PST=MUT NEUT.that NEUT.paper but
nara=ba nə-jerrədha-Ø

⁷⁶ Stimuli: EDED video, 2016 series, no. 16.

⁷⁷ Stimuli: EDED video, 2013 series, no. 55.

NEG=EMPH REAL.3M-be.finished-Ø

‘The man used to stab the bag all the time, but he doesn’t any more’ [author translation] [in response to the prompt: ‘he used to stab paper bags for a long time and then he, now he has stopped doing it, he's got no paper bags left’] (CW, JRB1-037-01, 00:26:14-00:26:26)⁷⁸

6.4.2.1.2 Resultative readings

REALIS-V-PAST markering can also be used in Anindilyakwa to express resultative readings (e.g. readings that in English are expressed through present or past perfect marking). Perfects are involved in situations that are ‘part of an extended period that includes a reference time... with the said situation being anterior to such time’ (Ritz et al 2012: 885).

There are four different kinds of perfect readings that have been classified in the literature (Comrie 1976; Iatridou et al 2001; Michaelis 1994; Smith 1997). The universal perfect or perfect of “persistent situation” refers to a state holding throughout a period of time (e.g. *Mary has lived in Canberra for three years*); the existential or experiential perfect denotes that an event has occurred at least once in a time period starting in the past and lasting up to the present (e.g. *Sam has been to Groote Eylandt*); the perfect of result or stative perfect expresses the result or consequences of a past situation that continues at the moment of speech (e.g. *Mary has arrived* [i.e. she is here]); and the perfect of recent past or “hot news” perfect indicates an event that has just recently occurred (e.g. *the police have just released a description of the suspect*). A central meaning to these types of perfect is one of current relevance, where a sentence in the perfect ‘describes a situation that is more relevant to the present than, for instance, a clause in the simple past (SP)’ (Ritz et al 2012: 883). REALIS-V-PAST marking is used in Anindilyakwa to convey perfect readings, including universal perfect (example (6.50)), existential perfect (example (6.51)) and perfect of result (examples (6.52-6.53)) readings.

6.50)	<i>en-eja</i>	<i>ni-yama-Ø</i>	<i>n-arəma</i>	<i>nubungkawa</i>
	3M-CofR	REAL.3M-say-PST	3M-big	3M.boss
	<i>Jekabu=wa,</i>	<i>“m-ambarrngarna</i>	<i>mamarika</i>	<i>iya</i>
	Jacob=ALL	VEG-how.many	VEG.southeast.wind	and

⁷⁸ Stimuli: EDED video, 2013 series, no. 39.

yinungkwura *nəngk-ena* *nəngk-ambilyu=ma?*” *ni-yama-Ø*.
 MASC.west.wind 2-this REAL.2-stay.PST=MUT REAL.3M-say-PST
en-eja *ni-yama-Ø* *Jekaba* “*nəng-ena=ka*
 3M-CofR REAL.3M-say-PST Jacob 1-this=EMPH
nəngu-marrawa-rnə=ma *engku=wa* *iya* *engku=wa* *angalya*
 REAL.1-wander-PST=MUT another=ALL and another=ALL NEUT.place
 130 *mamarika* *iya* *yinungkwura*
 130 VEG.southeast.wind and MASC.west.wind
 ‘The king asked him “How old are you?” Jacob answered “I have been
wandering for 130 years until now” [source translation]
 (Bible Society in Australia 1992: 396)

6.51) *nəngk-ena* *yirra-rrəngka-Ø=ma* *arakba*
 2-this REAL.1>2-see-PST=MUT COMPL.ACT
nganyangwa=mər̄ra *menba,* *akwa* *nəng-eningma* *arakba*
 1.PRO.POSS=INST VEG.eye and 1-know COMPL.ACT
nəngk-eniba *ngəwa* *nəngk-ena*
 2-alive continue 2-this
 ‘Now that I have seen you with my own eyes and I know that you are still
 alive [I am ready to die]’ [source translation]
 (Bible Society in Australia 1992: 392)

6.52) *warne=ka* *narrkuw-arrka-mər̄riya* *nganyangwa*
 3A.this=EMPH 3M.brother-1.KIN-the.rest 1.PRO.POSS
narru-wurrakə-wilyaka-Ø=ma *ababər̄na=lhangwa* *jiba* *iya*
 REAL.3A>NEUT-many-take-PST=MUT NEUT.many=POSS NEUT.sheep and
bulukwa *abər̄ra=lhangwa* *Kenina=lhangwa* *yangkwurrangwa*
 NEUT.cow 3A.PRO=POSS Canaan=ABL to.here
adhuwaba, *kajungwa* *karru-wurrak-akukwurr̄aji-ni=yedha*
 today so.that IRR.3A>NEUT-many-look.after-PST=PURP
enena=manja *angalya* *a-mər̄ndak-akəna*
 NEUT.this=LOC NEUT.place NEUT-many-that
 ‘My brothers have brought all their sheep and cattle here from Canaan, so that

they can look after them here’ [source translation]

(Bible Society in Australia 1992: 392)

- 6.53) *en-eja* *n-enəngə-karrawara* *n-akəna* *nə-lhəke-nə=ma*
 3M-CofR 3M-M.ALP-above 3M-that REAL.3M-go-PST=MUT
yangkwurrangwa *kajungwa* *akən-enibikə-ni=yedha*
 to.here so.that REAL.3M>12A-save-PST=PURP
ngakwurruwa *ena=lhangwa* *ngarnumamalya*
 12A.PRO NEUT.this=ABL12A.people
 ‘God has come to save his people’ [source translation]
 (Bible Society in Australia 1992: 584)

As is common in languages without dedicated perfect marking, in Anindilyakwa REALIS-V-PAST marking can express the equivalent of the English past perfect (as in examples (6.54) – (6.56)), where double temporal anteriority is expressed using the same T/A marking. In example (6.54), for instance, the REALIS-V-PAST inflected verb *-ararika-* ‘tie up’ indicates the occurrence of the event before the speech time, while the REALIS-V-PAST marking on the verb *-warda-* ‘kill’, indicates this event occurred before the *-ararika-* ‘tie up’ event.

- 6.54) *arakba* *wurru-wilyabanarringa-warda-ngə=ma* *wurr-akəna*
 COMPL.ACT COLL-one REAL.FEM>COLL-kill-PST=MUT COLL-that
wurrangariya əmba *wurr-akəna* *wurru-wilyaba=manja*
 COLL.baby but COLL-that COLL-one=LOC
narringa-mərndak-ararika-Ø=ma *dh-akəna*
 REAL.FEM>COLL-many-tie.up-PST=MUT FEM-that
 ‘It had already killed one little dog and it was coiled around another one’
 [source translation]
 (GL, A3369a Side1, a3.5 Dingarna-langwa akwa wurruwarda-langwa ‘Snake and a dog’)

- 6.55) *na-jungwee-yi-na* *akwalya,* *amarda,* *erriberriba,*
 REAL.3A-die-RECIP-PST NEUT.fish, NEUT.grass, NEUT.bush,
yinəngəngwangba,
 MASC.animals

‘They had all died, sea creatures, plants, the bush, land animals’ [source translation]

(NW, A3368a Side1, a1.1 Chasm Island, 00:03:25.182 - 00:03:28.033)

6.56) *ekburingka=wiya, ardadarra=wiya makarda=baba*

NEUT.dry=QUANT, NEUT.hot=QUANT VEG.sea=REAS

nəmә-lhәke-na

REAL.VEG-go-PST

‘(it was) all dry, (and) hot, because the sea had come (up)’ [source translation]

(NW, A3368a Side1, a1.1 Chasm Island, 00:03:31.077 - 00:03:34.530)

6.4.2.2 REALIS+NON-PAST

6.4.2.2.1 General present readings

The most frequent use of the NON-PAST marker (in combination with the REALIS portmanteau prefix series) is to express present temporal reference (i.e. expressing that the time of utterance occurs simultaneously with the topic time). This use has a default imperfective or ongoing aspectual reading, given that the utterance time is contained within the topic time. This is displayed in examples (6.57) – (6.60).

6.57) *akәna n-adhәka-jungu-na=ma door*

NEUT.that REAL.NEUT-close-REFL-NPST=MUT NEUT.door

‘The door is closed’ [author translation]

(JL, JRB1-022-01, 00:09:00-00:09:03)⁷⁹

6.58) *n-aka nenәngkwarba nә-mebi-na=ma*

3M-this 3M.man REAL.3M-sing-NPST=MUT

‘The man is singing’ [speaker translation]

(JL, JRB1-023-01, 00.07.20-00.07.30)⁸⁰

⁷⁹ Stimuli: EDED video, 2013 series, no. 4.

⁸⁰ Stimuli: EDED video, 2013 series, no. 9.

- 6.59) “*ena arakba nganyangwa angalya Milyarrumanja,*
 NEUT.this COMPL.ACT 1.PRO.POSS NEUT.place place.name
yelakwa arakba nəng-ambilya=ma nəng-ena
 here COMPL.ACT REAL.1-stay.NPST=MUT 1-this
ni-yama-Ø n-akəna
 REAL.3M-say-PST 3M-that
 ‘Then there he said “this place is mine now, Milyerrumanja, I’m staying here
 now’ [source translation]
 (NJ, A3370b Side1, a6.8 Jaragba Sacred Area-langwa)

- 6.60) “*yelakwa arakba ngaya ng-ambilya=ma nəng-ena*
 here COMPL.ACT 1.PRO REAL.1-stay.NPST=MUT 1-this
mena emeba nganyangwa yelakwa=wiya, əmba
 because NEUT.song 1.PRO.POSS here=QUANT but
nungkw-aja jeyi=yedha Ø-lhəka-ja
 2.PRO-CofR go=PURP DEON.2-go-NPST
yirra-lharrika-ja=ma nəngk-akawura” *ni-yama-Ø*
 REAL.1>2-send-NPST=MUT 2-alone REAL.3M-say-PST
 “‘I’ll stay here now, I’ll live here this song is mine, here I’ll stay but you go,
 you go from here. I’m sending you to go by yourself” he said’ [source
 translation]
 (NJ, A3370b Side1, a6.8 Jaragba Sacred Area-langwa)

Atomic events coerce an iterative reading, as in (6.61) and (6.62).

- 6.61) “*wa! warnumamalya wurr-angaba na-ridhe-na=ma*
 hey! 3A.person 3A-that.over.there REAL.3A-chop-NPST=MUT
kureya ka-rrəngka-Ø=lhangwa” *ni-yama-Ø*
 try IRR.1>3A-look-USP=ABL REAL.3M-say-PST
 “‘Hey! There’s someone over there chopping [a tree], I’ll try and see who it
 is” [source translation]
 (NW, B14 Side1, b14.5 Dumawurduwurda-langwa)

- 6.62) *n-akəna* *nenəŋkwarba* *nə-mədhiyakbə-na=ma*
 3M-that 3M.man REAL.3M-cough-NPST=MUT
 ‘[He is] coughing’ [speaker translation]
 (JL, JRB1-023-01, 00.08.30-00.08.34)⁸¹

REALIS-V-NPST can express two events occurring concurrently in a present temporal reference time, as in examples (6.63) and (6.64), where in (6.63) REALIS-V-NPST is marking two predicates (*-ajiya-* ‘stand’ and *-mebi-* ‘sing’) being realised simultaneously by the one subject, while in (6.64), two events marked with REALIS-V-NPST are occurring concurrently, being carried out by two different subjects (*-ruk+wulyakajə-* ‘spin’ by the man, and *-wilyaka-* ‘hold’/ *-andhiy-* ‘look’ by the boy).

- 6.63) *n-ajiya=ma* *akwa* *nə-mebi-na=m*
 REAL.3M-stand.NPST=MUT and REAL.3M-sing-NPST=MUT
emeba
 NPST.song
 ‘He standing singing’ [speaker translation]
 (JL, JRB1-023-01, 00.35.54)⁸²

- 6.64) *nemə-ruk+wulyakajə-na=ma* *mijiyanga* *əmba* *n-aka*
 REAL.3M>VEG-spin-CAUS-NPST=MUT VEG.boat and 3M-this
nenəŋkwarba *nu-wilyaka-na=ma* *binoculars*
 3M.man REAL.3M>NEUT-hold-NPST=MUT NEUT.binoculars
en=ang=manja *ayarrka* *akəna* *n-andhiya=ma*
 3M.PRO=POSS=LOC NEUT.hand NEUT.that REAL.3M-look.NPST=MUT
eyungkwa
 far.away
 ‘[The man’s spinning the steering wheel of the boat, and] ‘he [the boy]’s
holding a binoculars in his hand, and now he’s looking through that’ [speaker
 translation]
 (JL, JRB1-024-01, 00.04.08)⁸³

⁸¹ Stimuli: EDED video, 2013 series, no. 10.

⁸² Stimuli: EDED video, 2013 series, no. 9.

⁸³ Stimuli: EDED video, 2013 series, no. 27.

REALIS-V-NPST can also be used to narrate a sequence of events in real time, giving a more vivid representation of the series of events. This can be observed in (6.65), where the speaker describes a series of events they observe in a short vignette as they watch it. The use of REALIS-V-NPST emphasises the fact that the events are unfolding at the time of utterance (e.g. similar to the use of the English simple present/present progressive used during sports commentary, for instance).

- 6.65) *n-aka* *nenəŋkwarba* ***n-arrkərre-na-*** *n-arrkərre-na=ma*
 3M-this 3M.man **REAL.3M-draw-NPST-** REAL.3M-draw-NPST=MUT
mamudhang=manja *akwa* *n-arrangalhi-jungu-na=ma* *akwa*
 VEG.sand=LOC and REAL.3M-itch-REFL-NPST=MUT and
nə-mebi-na=ma
 REAL.3M-sing-NPST=MUT
 ‘The man draws in the sand and scratches himself and sings’ [author translation]
 (JL, JRB1-023-01, 00.34.37)⁸⁴

6.4.2.2.2 Gnomic/habitual readings (generally accepted truths)

Similar to the use of the ability of REALIS-V-PST marking to express habitual aspect in the past, REALIS-V-NPST marking can also express a habitual or gnomic aspectual reading. In addition to its most frequent use, expressing the present temporal reference point of an event (with the time of utterance \subseteq the topic time), REALIS-V-NPST marking can also express habitual events and generally accepted truths (states or events) that occur or are repeated throughout time. Examples (6.66) – (6.69) demonstrate this habitual use of REALIS-V-NPST marking.

- 6.66) *ena* *angarrakaba* ***na-lhungkuwarringə-na=ma***
 NEUT.this NEUT.wild.cherry **REAL.NEUT-grow-NPST=MUT**
murungwena=manja *akwa* *mijiyelya=manja*
 VEG.jungle=LOC and VEG.beach=LOC
 ‘Wild cherry trees grow in the jungle and at the beach’ [source translation]
 (Groote Eylandt Linguistics 1993: 3)

⁸⁴ Stimuli: EDED video, 2013 series, no. 25.

- 6.67) *warnumamalya* ***nuw-alyəbarə-na=ma*** *amamamuwa*
 3A.people REAL.3A-eat-NPST=MUT NEUT.round.object
amanhənga
 NEUT.food
 ‘People eat the fruit’ [source translation]
 (Groote Eylandt Linguistics 1993: 3)
- 6.68) *y-aka* *yukungba* ***n-ambilya=ma***
 MASC-this MASC.possum REAL.MASC-live.NPST=MUT
murungwena=manja akwa yinijirra=manja
 VEG.jungle=LOC and VEG.rocky.hills=LOC
 ‘Possums live in the jungle and in the rocky hills’ [source translation]
 (Groote Eylandt Linguistics 1993: 64)
- 6.69) *akungwa* ***nu-rəngkwadhukwa-ju-na=ma*** *angwura=manja*
 NEUT.water REAL.NEUT-boil-CAUS-NPST=MUT NEUT.fire=LOC
 ‘Water boils when you put it on a very hot fire’ [author translation]
 (JL, JRB1-045-01, 00.01.35-00.01.43)

6.4.2.3 =ma~=mərra: *Not an aspectual morpheme (contra Leeding (1989))*

Leeding (1989: 437) argues that the =ma~=mərra clitic is ‘an aspect morpheme which also incorporates tense’. She suggests that it contrasts with perfective marking (-Ø) to express imperfective aspects (Leeding 1989: 441).

However, as van Egmond (2012) has noted, this cannot be the case, given that perfective readings can still be expressed with the =ma~=mərra marker (as in examples (6.70) – (6.72)), and imperfective readings can occur without the =ma~=mərra marker (as in examples (6.73) and (6.74)). This demonstrates that there is, in effect, no imperfective meaning attached to =ma~=mərra.

Perfective readings with =ma~=mərra:

- 6.70) *James n-angaba* ***ni-yedha-ngə=ma*** *Numbulwar*
 James 3M-that.over.there REAL.3M-arrive-PST=MUT Numbulwar

arakba

COMPL.ACT

‘James already arrived in Numbulwar’ [speaker translation]

(JL, JRB1-018-01, 00.04.07)

- 6.71) *kembirra nəm-awiyebe-nə=ma mamawura. Kembirra*
then REAL.VEG-enter-PST=MUT VEG.sun then
yirrə-mungkulhə-nga-Ø=mər̄ra marrənga
REAL.1A-sleep-CofS-USP=MUT VEG.sleep
‘Then the sun set. Then we fell asleep’ [source translation]
(van Egmond 2012: 234)

- 6.72) *yarrungwa n-akən nenəngkwarrba*
yesterday 3M-that 3M.man
nəm-akbərranga-Ø=ma mijiyelya
REAL.3M>VEG-find-USP=MUT VEG.beach
‘Yesterday he found the beach’ [speaker translation]
(JL, JRB1-018-01, 00.05.31)

Imperfective readings without =ma~mər̄ra:

- 6.73) *na-ruk-wulyəke-na m-akəna makarda*
REAL.3A-body-spin-PST VEG-that VEG.sea
‘It was spinning around in the sea’ [source translation]
(NW, A3368a Side1, a1.1 Chasm Island, 00.01.33)

- 6.74) *ərribərriiba=ka nuw-akadha-nginee=ka*
keep.on=EMPH REAL.NEUT-make.own.sound-PST=EMPH
enəng-angk-awura
NEUT.ALPH-times-alone

‘It kept on crackling towards us all the time’ [source translation]
(GL, A3369a Side 1 a3.4, Bujikeda ‘Mother cat’)⁸⁵

Rather than a specific morphological marker to express imperfectivity, as is Leeding’s (1989) suggestion with her analysis of the *=ma~mər̥ra* marker, I propose that Anindilyakwa instead makes use of other markers capable of imperfective meanings, including verb root reduplication (§7.1) and the use of stylised phonological contours (§7.2), as well as utilising different aspectual particles and adjectives. These non-inflectional aspectual devices effectively compensate for the absence of a dedicated inflectional imperfective aspectual viewpoint category (Smith 1991) in the language, as opposed to the underspecified aspectual form that it exhibits (which is capable of rendering imperfective viewpoint readings).

Instead of expressing imperfectivity (*à la* Leeding 1989), I argue that *=ma~mər̥ra* is a multifunctional marker that occurs in a wide range of contexts, which involves case, epistemic stance and perspective, clause type, and focus/emphatic discourse-pragmatic expression. See §2.5 for a comprehensive discussion.

6.5 REALIS + phonologically Ø slot of the [+3] inflectional TAM paradigm

6.5.1 Overview

The phonologically Ø slot of the TAM inflectional paradigm (i.e. realised by the absence of a phonologically overt marker in the [+3] slot of the verbal template), in combination with the portmanteau prefix paradigm, is involved in a range of complex T/A functions, interacting with Aktionsart/event structure aspect properties, pragmatic reasoning and discourse relations. It is glossed as USP (UNDERSPECIFIED) in example sentences⁸⁶.

REALIS inflected verbs carrying the phonologically Ø marker are temporally and aspectually underspecified, however temporal and aspectual readings can be inferred from Aktionsart/event structure aspectual properties of the verb complex; atomic events take past

⁸⁵ Here, the adjective *ərribər̥riba* is a frequentative marker, expressing pluractional, iterative, non-habitual meaning in this context (see §7.3.2 for further discussion).

⁸⁶ This section discusses only this realisation of the absence of a phonologically overt marker of the [+3] slot of the verbal template. As mentioned in §2.4, Ø in [+3] slot of the verbal template can also occur i) as an allomorph of the PAST TAM suffix (for class 4 verbs), and ii) in serial verb-like associated motion constructions, in which the first verb in a sequence takes overt inflectional TAM marking, while the second is realised with a phonologically Ø form (but which follows the aspectuo-temporal semantics of the first, overtly-inflected verb of the sequence). For further discussion of these, the reader is referred to §2.3.4.2 and §3.3.2.3.2, respectively.

temporal reference, non-atomic dynamic events are able to express both present and past temporal reference, while states take present temporal reference. REALIS-V-Ø inflected verbs that take past temporal reference, express aspectually perfective viewpoint readings⁸⁷.

I claim that the phonologically overt PAST/NON-PAST/POTENTIAL markers vs. the phonologically Ø marker is not a case of optional T/A marking (*contra* e.g. Leeding 1989), given that the Ø marker (i.e. the absence of a PAST/NON-PAST/POTENTIAL marker in the [+3] slot of the verbal template) is contrastive and expresses particular aspectuo-temporal properties (see §6.5.3). Additionally, I support this claim by demonstrating that the Ø slot of the TAM inflectional paradigm derives from a phonologically overt T/A marker, through comparison with other eastern Gunwinyguan languages (see §6.6).

Through examining the aspectuo-temporal semantics REALIS-V-Ø inflected verbs, I propose an underspecified aspectuo-temporal analysis, where the temporal interpretation is realised through the interaction between Aktionsart/event structure and pragmatic reasoning/discourse structure. In this discussion I draw comparisons to so-called ‘tensed’ analyses of languages with no overt tense marking (*à la* Jóhannsdóttir & Matthewson 2007; Matthewson 2006), and compare this with ‘tenseless’ analyses (*à la* Bittner 2005; Bohnemeyer 2002, 2009; Mucha 2013; Smith and Erbaugh 2005; Smith et al 2007; etc.).

6.5.2 *Aspectual properties*

Previous analyses of the Anindilyakwa inflection TA system (cf. Heath n.d.; van Egmond 2012) posit two past and two non-past categories, differing with respect to aspect (marking distinctions of perfective and imperfective aspect). The aspectual properties of the PAST and NON-PAST, as well as their previous analyses, were discussed in §6.2.2. Here, I turn to the -Ø slot of the TAM paradigm, which under Heath and van Egmond’s analyses is divided into two categories of perfective past and perfective non-past (their P1/NP1 inflections), which they claim express perfective aspect, as in example (6.75). Heath (n.d) labels this marker ‘punctual’ and van Egmond (2012) ‘atomic’⁸⁸.

⁸⁷ In this section, I focus on the combination of the -Ø with the REALIS portmanteau prefix series. The combination of the IRREALIS and DEONTIC prefix paradigms with the -Ø TAM marker is discussed in Chapter 9.

⁸⁸ van Egmond (2012) uses this term to denote a ‘subtype of perfective aspect’, which does not have any proper subparts and is not associated with a scalar change-of-state (cf. Caudal 1999; Caudal & Nicolas 2005) – i.e. referring to viewpoint aspect. However, generally in the literature (and the way I use this term in this thesis), ‘atomicity’ refers to a core temporal property of a situation, involving a holistic, one-step change-of-state, comprising only two degrees (a minimal and a maximal one, being devoid of proper subparts) (see §4.2.2.4).

- 6.75) *yarrungkwa n-akəna nenəngkwarba nə-lyumadhu-Ø=ma*
 yesterday 3M-that 3M.man REAL.3M-disappear-USP=MUT
 ‘He disappeared’ [speaker translation]
 (JL, JRB1-050-01, 00.27.52-00.27.59)

However, perfective readings only occur with some verb types: dynamic verbs (such as that of example (6.75)), which are capable of expressing past temporal readings when inflected with REALIS-V-Ø TAM marking. I suggest that the REALIS portmanteau prefix + Ø TAM suffix inflectional paradigm is aspectually underspecified, but predictable depending on the Aktionsart/event structure type of the verb with which it interacts; REALIS-V-Ø inflected verbs take perfective aspectual readings if they are dynamic (i.e. non-stative) verbs, and take past temporal readings⁸⁹, while they take on-going readings if they are stative verbs.

Given that past readings of REALIS-V-Ø inflected verbs take perfective viewpoint readings, this inflectional marking occurs frequently in passages involving sequences of events, as in example (6.76).

- 6.76) *arakba n-adhərra-Ø n-akəna akwərrerrikba*
 COMPL.ACT REAL.3M>NEUT-spear-USP 3M-that NEUT.harpoon
 Now he grabbed a spear [one of the men took his harpoon]
- akwa arakba n-errikbə(?) -Ø*
 and COMPL.ACT REAL.3M>NEUT-throw-USP
n-errikbə-Ø akəna akwa n-ərrəngka-Ø
 REAL.3M>NEUT-throw-USP NEUT.that and REAL.3M-look-PST/USP
arakba
 COMPL.ACT
 and he threw it. He threw it and he saw/watched it [the spear]
- na-ruk-w-ulyəke-na m-akəna makarda*
 REAL.3A-body-spin-PST VEG-that VEG.sea

⁸⁹ REALIS inflected verbs carrying the phonologically Ø marker are also temporally underspecified, but predictable depending on the Aktionsart/event structure type of the verb, with statives taking present temporal reference, non-atomic dynamic events being able to express both present and past temporal reference, and atomic events taking past temporal reference. This is expanded upon in §6.5.3.2.

spinning around in the sea.

na-ruk-w-ulyuwake-na *yandhə+lhangwa*
REAL.3A-body-spin-PST nothing+ABL [=until]
nuw-adhərra-Ø=dha
REAL.3A-spear/pierce-USP=TRM

It went round and round, until it dropped (in the sea).

akwa n-angkarra-Ø *arakba* *nu-wurda-nga*
and REAL.3M-run-USP COMPL.ACT REAL.3M-climb-PST
angwarnda=manja *abalkaya=dha*
NEUT.stone=LOC above=TRM

And he ran off [and] climbed high on the rocks

(NW, A3368a Side1, a1.1 Chasm Island, 00:01:25.200 - 00:01:43.290)

While past readings of dynamic events taking REALIS-V-Ø inflectional marking express perfective aspectual readings, they can be modified by aspectual particles and adjectives in order to express an on-going reading, however in these cases REALIS-V-Ø marking coerces an iterative reading (i.e. whereby there are repeated iterations of an event over an extended period of time). For example, as displayed in (6.77), *-ruk-wə+lyakaja-* ‘stir’ is modified by the aspectual adjective *ərribərriba* ‘keep on’, in order to express the iterative reading of many repeated iterations of the stirring action.

- 6.77) *akwa n-ərribərriba nu-ruk-wə+lyakaja-Ø=ma*
and 3M-keep.on 3M>NEUT-stir-USP=MUT
‘He was keep on stirring’ [speaker translation]
(CW, JRB1-032-01, 00.30.45)

While inflectional marking involving phonologically overt TAM markers can express both culminating and non-culminating telic events (i.e. REALIS-V-PAST inflectional marking, for instance, does not entail that the eventuality was completed (i.e. the final endpoint does not have to be visible), telic predicates inflected for REALIS-V-Ø or IRREALIS-V-Ø (i.e. involving the REALIS prefix with the bare stem paradigm) do entail that such a culmination occurred (i.e. a non-culminating reading is disallowed). Compare the non-culminating event in example

(6.78), with the verbal complex inflected for REAL-V-PST, to example (6.79) inflected for REALIS-V-Ø marking, in which a non-culminating reading is disallowed.

- 6.78) *n-alyəbarə-nə=ma* *y-akəna* *yinumanhənga* *akena*
 REAL.3M-eat-PST=MUT MASC-that MASC.wild.apple but
nara kən-alyəbarə-na
 NEG IRR.3M>MASC-eat-PST
 ‘He ate the wild apple, but he didn’t eat it’ [speaker translation]
 (i.e. ‘he ate/began to eat the wild apple, but didn’t finish it’)
 (JL, PL, CW, fieldnotes, 19/07/2018)

- 6.79) **n-alyəbaru-Ø=ma* *y-akəna* *yinumanhənga* *akena nara*
 3M-eat-USP=MUT MASC-that MASC.wild.apple but NEG
kən-alyəbarə-na
 IRR.3M>MASC-eat-PST
 *He ate the wild apple [i.e. began to eat, started eating], but he didn’t eat it
 (JL, PL, CW, fieldnotes, 19/07/2018)

REALIS-V-Ø marked stative verbs, on the other hand, express on-going aspectual readings, as in example (6.80). Given that perfective viewpoints do not apply to stative situations in the same manner as they do to dynamic events (either disallowing perfective viewpoints on states; or force a shift in Aktionsart/event structure (e.g. coerce an inchoative/inceptive reading)), “because endpoints do not appear in the temporal schema of a state” (Smith 1997: 67), the fact that the Ø TAM marker occurs with statives without coercing a shifted, dynamic interpretation (e.g. changes into/out of a state) is an argument against a perfective viewpoint analysis of this Ø marker.

- 6.80) *ngayuwa* *ngu-məreya-Ø* *anhəngu=wa*
 1.PRO REAL.1-be.hungry-USP NEUT.food=ALL
 ‘I’m hungry for food’ [speaker translation]
 (JL, JRB1-050-01, 00.15.27-00.15.32)

In addition to perfective past readings, REALIS-V-Ø inflectional marking can also express perfect of result resultative readings with atomic events, indicating a result state which has

come about from a prior eventuality (i.e. one of the different kinds of possible perfect readings classified in the literature (Comrie 1976; Smith 1997; Iatridou et al 2001)), as in examples (6.81) and (6.82). This is much more restricted than REALIS-V-PST marking, which can express a number of different resultative readings (universal perfect, existential perfect and perfect of result) (see §6.4.2.1.2).

- 6.81) “*ni-jungwu-Ø=ma* *arakba* *naw-ena,* *əmba*
REAL.3M-die-USP=MUT COMPL.ACT 3M.brother-2.KIN but
Ø-lhəka-ja *arakba* *dh-ibinu=wa* *dhadhingiy-enikba*
DEON.2-go-NPST COMPL.ACT 3F-that.same=ALL 3F.wife-3M.KIN
jeyi, dhingaya *akwa* *yikingu-mungkwulha yakwujina,* *kajungwa*
go 3F.widow and IRR.2A>3F-sleep.NPST there so.that
kənə-mən-akumajungwu-ni=yedha *nungkuwa* *wurriyukwayuwa*
IRR.3M>3M-BENE-have.child-NPST=PURP 2.PRO 3A.child
ena=lhangwi=yedha”

3M.PRO=ABL=PURP

“Now that your brother has died, go to his widow and sleep with her so that you can have children for him” [source translation]

(Bible Society in Australia 1992: 312)

- 6.82) *Eliye=ka* *dhukwa* *n-akəna* *ni-yedhu-Ø=ma*
Elijah=EMPH maybe 3M-that REAL.3M-arrive-USP=MUT
yelakwa

here

‘Elijah has arrived’ [source translation]

(Bible Society in Australia 1992: 623)

6.5.3 Temporal properties and underspecification

As discussed above, the T/A inflectional system of Anindilyakwa includes both phonologically overt T/A markers, as well as zero-marked verbs. While tense is explicitly expressed via REALIS-V-PAST/NON-PAST inflected verbs, I argue that REALIS-V-Ø inflected verbs (i.e. with a phonologically null suffixal exponent) are semantically temporally underspecified, with temporal reference inferred through pragmatic reasoning and discourse structural parameters.

In order to examine this feature of the T/A system of Anindilyakwa, I consider how ‘tenseless languages’ (i.e. languages whose verb forms carry no temporal inflectional morphology) have been examined in the literature. In §6.5.3.1 I introduce and provide the background for two primary approaches to the analysis of tenseless languages, (i) a ‘tensed’ approach that posits a covert element in the syntactic structure, which imposes restrictions on the reference time, and (ii) a ‘tenseless’ approach, in which tense is not assumed to play a role in the morphology, syntax, or interpretation of such languages (cf. eg. Mucha 2015). In §6.5.3.2 I examine the temporal interpretations of REALIS-V-Ø marked verbs in Anindilyakwa and provide an account for this in §6.5.3.3, arguing that a ‘tensed’, semantically underspecified approach best accounts for the data, with the temporal interpretations of REALIS-V-Ø marked verbs inferred through aspectual properties, discourse context and general pragmatic principles.

6.5.3.1 Background to ‘tenseless’ languages cross-linguistically

In the majority of well-studied languages (e.g. most Indo-European languages), tense is marked overtly. In these languages, tense is often fused with agreement and is assumed to be the head of the syntactic clause. However, in contrast, much recent cross-linguistic research has identified and examined languages that do not overtly mark tense in their grammatical systems, which suggests that the semantic category of tense is not in fact a language universal, with some languages being genuinely tenseless (Mucha 2015: 1).

‘Tenseless’ languages are those languages that do not have paradigmatic forms that convey temporal relations between the topic time and the utterance time (Tonhauser 2015: 132). Rather, temporal information in these languages is expressed via other linguistic means (such as through temporal particles, adverbials, etc.) (Smith et al 2007: 44).

In recent investigations into such languages, there has been some debate regarding whether these types of languages (without overt tense morphology) are still semantically restricted by phonologically covert tense morphemes, or not (cf. Mucha 2015: 49). From this debate, two central approaches have been proposed with respect to the analyses of languages without overt tense morphology; i) where temporal interpretation is restricted by covert tense morphology, and ii) where the location of the reference time of a sentence is predictable solely based upon aspect, context and some basic pragmatic reasoning principles (Mucha 2015: 189). These two approaches are outlined briefly in §§6.5.3.1.1-6.5.3.1.2 below.

In contrast to those ‘tenseless’ languages without overt tense marking, inflectional marking clearly plays a core role in temporal expression in Anindilyakwa. However,

discussions from the domain of tenseless languages can provide insights into how best to analyse REALIS inflected verbs carrying the phonologically \emptyset slot of the TAM inflectional paradigm in Anindilyakwa. This is examined in §§6.5.3.2-6.5.3.3.

6.5.3.1.1 *'Tensed' analyses of languages without overt tense marking*

While some theoretical frameworks involving tense and temporal reference consider tense indispensable, assuming tensed analyses to tenseless languages (regardless of the empirical support for such an analysis) (either under the assumption that the tense node is obligatory in the syntactic structure of all languages (cf. Rouveret & Vergnaud 1980; Chomsky 1995) or that tense is required for a sentence to denote a proposition (cf. discussion in von Stechow & Matthewson 2008), other research positing tensed analyses for languages without overt tense marking do so in order to account for the temporal reference restrictions in these languages (cf. Matthewson 2006) (Tonhauser 2015: 138-9). It is this later research that I discuss here.

If a language without overt tense marking demonstrates temporal reference restrictions comparable to those exhibited by some tensed language, a tensed analysis of that language may be empirically suitable if it encapsulates the empirical generalisations about temporal reference that is known about that language (Tonhauser 2015: 139).

Tensed analyses of languages without overt tense marking have been proposed by, amongst others, Avolonta (1992) for Fongbe (Kwa); Jóhannsdóttir & Matthewson (2007) for Gitksan (Tsimshian); Matthewson 2006 for St'át'imcets (Salishan); Reis Silva & Matthewson (2007) for Blackfoot (Algonquian); and Morton (2014) for Bassila Anii (Kwa) (cf. Tonhauser 2015).

If we take the analysis of Matthewson (2006) for St'át'imcets as an example, Matthewson (2006) argues here that St'át'imcets is only superficially tenseless, and that there is a covert (phonologically null) and semantically underspecified tense morpheme that restricts the relation between the reference time and utterance time. The main assumption is that a covert element in the syntactic structure imposes restrictions on the reference time, restricting the reference time to precede or overlap with the utterance time (Matthewson 2006: 695). Matthewson argues that future time reference requires overt marking, thereby excluding it from temporally unmarked finite sentences.

6.5.3.1.2 *'Tenseless' analyses of languages without overt tense marking*

In contrast to tensed approaches to languages without overt tense marking, overviewed above in §6.5.3.1.1, tenseless approaches do not assume that tense must play a role in the morphology, syntax, or interpretation of such languages (i.e. that there need not be a tense morpheme specifying temporal reference restrictions) (Tonhauser 2015: 146). Instead, it is argued that other factors can determine the interpretation of temporal reference.

While temporal reference cross-linguistically is constrained by a grammatical category of tense in some languages, it can be constrained by temporal adverbials and by context in all languages. By considering tense as just one possible factor contributing to the restriction of temporal reference (along with temporal adverbials and context), the importance of tense to temporal reference is deemphasised (Tonhauser 2015: 138).

Thus, a 'tenseless' analysis of a language without overt tense marking might argue that temporal interpretation is not restricted by a grammatical category of tense, but rather inferred through aspect (viewpoint aspect and/or Aktionsart/event structure) (Mucha 2015: 192), and that such aspect-based approaches to temporal interpretation in tenseless languages can be as precise as a tense-based approach to temporal interpretation in tensed languages (Lin 2012: 691-2).

This approach to temporal reference has been proposed for a wide variety of languages, including Kalaallisut (Eskimo-Aleut) (Bittner 2005); Yukatek Maya (Mayan) (Bohnemeyer 2002, 2009); Mandarin (Sino-Tibetan) (Lin (2002, 2003, 2007, 2012); Smith and Erbaugh 2005); Hausa (Afro-Asiatic) (Mucha 2013, 2015); Navajo (Na-Dené) (Smith et al 2003; Smith et al 2007); and Paraguayan Guaraní (Tupi-Guaraní) (Tonhauser 2011).

Across these tenseless languages, aspect has been claimed to be a key property involved in expressing both the temporal location of the reference time in relation to the utterance time, as well as the temporal relation between the reference time of one clause to that of another in discourse (Tonhauser 2015: 140). In 'out-of-the-blue' contexts, aspect has been shown to be connected to the temporal relation between the reference time and the utterance time, and in narrative discourse, the reference time of an utterance is not only temporally relative to the utterance time, but also to the reference time of a preceding clause (Tonhauser 2015: 140), with aspectual information being able to imply these temporal relations in discourse.

An approach to demonstrate temporal reference restrictions was developed by Carlota Smith and colleagues (cf. Smith et al 2003, 2007; Smith & Erbaugh 2005; Smith 2008), with the general idea being that the temporal reference of sentences with no overt tense marking or

adverbials are inferred from aspectual properties (viewpoint aspect and/or Aktionsart/event structure), in combination with four pragmatic principles (Tonhauser 2015: 142):

- i) The Deictic Principle: Situations are located with respect to Speech Time (Smith et al 2007: 44);
- ii) The Bounded Event Constraint: Bounded events are not located in the present (Smith et al 2007: 45);
- iii) The Simplicity Principle of Interpretation: Choose the interpretation that requires the least information added or inferred (Smith et al 2007: 60);
- iv) The Temporal Schema Principle: Interpret zero-marked clauses according to the temporal schema of the situation (Smith et al 2007: 61).

These principles allow inferences about temporal reference to be drawn, particularly from the boundedness features of utterances (Tonhauser 2015: 143).

The Deictic Principle (that situations are located with respect to Speech Time) is constrained by the Bounded Event Constraint; that only unbounded situations can be located at Speech Time (i.e. that speakers follow the tacit convention that communication is instantaneous), and that this notion is incompatible with the expression of a bounded event at Speech Time, given that “the bounds would go beyond the moment” (Smith et al 2007: 44-45).

By boundedness, we are referring here to an aspectual property of situations (states and events), whereby the situation is described as having reached a temporal boundary (implicit or explicit) or not (irrespective of whether the situation has an inherent endpoint) (Depraetere 1995: 2-3) (see §4.2.2.2 for comparison to telicity). Boundedness depends upon both viewpoint aspect and Aktionsart/event structure, with perfective viewpoint aspect presenting events as bounded (and imperfective as unbounded), and with respect to Aktionsart/event structure, telic events expressing intrinsic bounds essential to the event, and in contrast, atelic situations (including states) being intrinsically unbounded (with states having no fixed endpoints, and atelic durative events having arbitrary endpoints) (Smith et al 2007: 57).

Present temporal reference is assumed to be simpler than past or future temporal reference, and past reference simpler than future temporal reference (given that future temporal reference is not purely temporal, but also modal) (Tonhauser 2015: 143). Thus the Simplicity Principle of Interpretation posits that, in lieu of additional marking, bounded events are located in the past rather than the future (Mucha 2013: 192).

The final principle, the Temporal Schema Principle, postulates that zero-marked verbs are interpreted depending upon their Aktionsart/event structure properties. This principle, which follows the Gricean Maxim of Quantity, is effectively a special case of the Simplicity Principle of Interpretation, whereby situations with intrinsic bounds are taken as bounded and other situations as unbounded (Smith et al 2007: 61). This pragmatic temporal inference of boundedness (determined by Aktionsart/event structure) is different from the (semantically encoded) boundedness expressed by viewpoint aspect (Smith et al 2007: 61). Boundedness expressed by viewpoint aspect or by adverbials is semantic (coded by linguistic form), while boundedness expressed by Aktionsart/event structure is pragmatic, given that it is inferred (via the temporal schema associated with the situation expressed), and can be overridden by other information in the sentence, or by context (Smith et al 2007: 58).

Thus, an important property in this type of analysis of ‘tenseless’ clauses is the key role of perfective/imperfective viewpoint aspect systems in the inference of the temporal reference point (for languages that have a system of perfective/imperfective viewpoint aspect); and the principle of ‘boundedness’ (covering both viewpoint aspect and Aktionsart/event structure properties). The major predictions that the tenseless analysis of languages without overt tense marking makes is that (unless additionally marked via context, temporal adverbials and/or tense); i) perfective aspectually marked sentences are interpreted with a past temporal reference point; ii) imperfective aspectually marked sentences are interpreted with a present temporal reference point; and iii) future temporal reference is overtly marked (but it is not categorically excluded from unmarked sentences) (Mucha 2013: 193).

In §§6.5.3.2-6.5.3.3, I demonstrate how these particular features are not applicable for Anindilyakwa, but that nonetheless some of these aspectual and discourse-structural principles can be utilised in a temporally underspecified analysis of REALIS-V-Ø marked verbs.

6.5.3.2 Temporal interpretation of phonologically Ø TAM marked verbs in Anindilyakwa

Following the brief summary of tenseless languages and their analyses with respect to temporal reference in §6.5.3.1, I now turn back to examining the REALIS-V-Ø marked verbs in Anindilyakwa.

In §6.5.3.3 I argue for an account of the temporal properties it encompasses, where I suggest temporal information expressed by the Ø marker, in combination with the REALIS portmanteau paradigm, is based on aspectual information (Aktionsart/event structure), together with pragmatic principles of interpretation.

6.5.3.2.1 *This analysis in contrast to Heath (n.d.) and van Egmond (2012)*

REALIS-V-Ø marked verbs in Anindilyakwa can occur without any direct temporal information (e.g. phonologically overt tense markers, no temporal adverbials). For these instances I suggest that, in addition to discourse structural parameters, the aspectual system provides the necessary temporal information indirectly, through pragmatically based principles (as was outlined in §6.5.3.1 and is explored with respect to Anindilyakwa in §6.5.3.3).

Aspectual information can therefore be seen as a key property for the interpretation of temporal reference of REALIS-V-Ø marked verbs in Anindilyakwa, where Aktionsart/event structure properties of REALIS-V-Ø marked verbs infer temporal reference information. As to be demonstrated in this section, stative verbs trigger a present interpretation; verbs describing atomic telic events (in the sense of e.g. Dowty 1986; Caudal 1999; i.e. non-gradual change-of-state telic verbs) triggers a past interpretation; and verbs describing either atelic dynamic events (i.e. activities and unbounded changes-of-states such as so-called ‘degree achievements’ (Abusch 1986)) or non-atomic telic events (i.e. by and large accomplishments (c.f. Caudal 1999)) are capable of both past and present readings.

This analysis of the phonologically Ø TAM marker is in contrast to that of Heath (n.d.) and van Egmond (2012), whose analyses postulated two separate (but syncretic) categories, based on a semantic (temporal) assumption of past vs. non-past (i.e. a split between their NP1 (-Ø ~ -ya) and P1 (-Ø) categories).

The main issue with this syncretic analysis is that the temporal readings of past vs. non-past postulated by Heath (n.d.) and van Egmond (2012) are not possible with all verb types. Certain verb types inflected with this Ø TAM category have only one temporal reading available to them (either past or non-past), with speakers rejecting either a past or non-past temporal interpretation. For example, as demonstrated in example (6.83), the verb *-lharra-* ‘fall’, when inflected with a phonologically Ø [+3] verb slot, can express only a past temporal reference time, not a present or future one (i.e. the paradigms of these verbs, under the Heath/van Egmond analysis, are defective; we don’t find the situation they imply, of two possible paradigmatic inflections (albeit syncretic ones) expressing two semantic (temporal) features).

- 6.83) *n-akəna* *nenəngkwarba nə-lharra-Ø*
 3M-that 3M.man REAL.3M-fall-USP
 ‘That man fell down’

*That man falls down/is falling down [now]
(JL, JRB1-049-01, 00.40.50-00.40.56)

Instead, I assume one unique morphological cell in the paradigm that is aspectuo-temporally underspecified (rather than two syncretic cells). More specifically, I suggest that the above temporal parameter, which van Egmond (2012) and Heath (n.d.) take to be a semantic primitive determining the functional differentiation of identical forms (i.e. syncretism), is in fact not primitive but contextually determined (from Aktionsart/event structure properties).

Methodologically, this draws attention to the importance in considering such underspecification-based approaches in language description, rather than asserting morphological syncretism on the basis of aspectuo-temporal functional differences, which can raise major issues at the interface between morpho-syntax to semantics. There should be strong morphological arguments for positing syncretism, which are absent in the case examined here.

Therefore, given that these ‘defective’ cells are predictable on an aspectual (Aktionsart/event structure aspect) and contextual basis, I suggest that an underspecification-based analysis (in lieu of van Egmond’s (2012) syncretism-based analysis) is a more convincing one to follow. This accounts for the functional differences which led to the syncretism analysis, but without postulating two distinct forms (or rather, in this case, two different \emptyset forms, which is even more difficult to justify) (see Nordlinger & Caudal (2012) for a related reanalysis of a previously syncretic account of tense/aspect paradigms in Murrinh-Patha).

In §§6.5.3.2.2-6.5.3.2.5 I outline the temporal properties of \emptyset TAM marked verbs, demonstrating the Aktionsart/event structure properties associated with the inference of temporal reference, before examining in detail in §6.5.3.3 how Aktionsart/event structure, discourse context and pragmatic reasoning influences temporal reference.

6.5.3.2.2 *Atomic events*

Verbs describing atomic telic events (in the sense of e.g. Dowty 1986; Caudal 1999; i.e. non-gradual change-of-state telic verbs) uninflected with the formal tense/aspect marker take a past interpretation, as in examples (6.84) - (6.86).

In these cases, speakers assert that a past temporal reading is the only one available (e.g. for example (6.84) the reading must be ‘he disappeared’ and not ‘he disappears’).

- 6.84) *yarrungkwa n-akəna nenəngkwarba nə-lyumadhu-Ø=ma*
 yesterday 3M-that 3M.man REAL.3M-disappear-USP=MUT
 ‘He disappeared’ [speaker translation]
 *‘He disappears’
 (JL, JRB1-050-01, 00.27.52-00.27.59)
- 6.85) *n-akəna nenəngkwarba ni-jungə-Ø=ma, n-akəna*
 3M-that 3M.man REAL.3M-die-USP=MUT 3M-that
nenəngkwarb ni-jungu-Ø=ma
 3M.man REAL.3M-die-USP=MUT
 ‘He passed away’ [speaker translation]
 *‘He passes away’
 (JL, JRB1-049-01, 00.47.04-00.47.16)
- 6.86) *n-akəna nenəngkwarba nenu-warda-Ø,*
 3M-that 3M.man REAL.3M>COLL-hit-USP
nenu-warda-Ø wurr-aka wurruwarda
 REAL.3M>COLL-hit-USP COLL-that COLL.dog
 ‘That man hit the dog [before]’ [speaker translation]
 (JL, JRB1-049-01, 00.46.19-00.46.29)

In saying this, we do find instances of what appear to be achievement verbs that can take present temporal readings, as in examples (6.87) and (6.88). However, in these examples the verb can be seen to be expressing pluractionality or iterativity. This is clear in example (6.87), where the verbal predicate is modified by the adverbial *arnkwababərnama* ‘always’ to express the habit of repeatedly shutting the door over a period of time; and it is also the case in example (6.88), where we get an iterative reading (the dog is biting the boy (several times, repeatedly)). Both of these scenarios should therefore be analysed as a succession of atomic events, rather than a single unanalysable change-of-state, and as such we observe that they have the ability to trigger both past and present temporal readings.

- 6.87) *n-akəna nenəngkwarba arnkwa-ababərna=ma*
 3M-that 3M.man time-many=EMPH
nə-dhədhə-Ø=ma door=a

REAL.3M>NEUT-shut-USP=MUT NEUT.door=PF
 ‘[That man is always] shutting the door’ [speaker translation]
 (JL, JRB1-049-01, 00.31.54-00.32.14)

6.88) *enenu+wiya* *wurr-akəna* *wurruwarda* *nan-anga-Ø*
 now+QUANT COLL-that COLL.dog REAL.COLL>3M-bite-USP
n-akəna *nenjarrngalya*
 3M-that 3M.boy
 ‘Right now the dog is biting the boy’ [speaker translation]
 (ST, JRB1-054-01, 00.13.10-00.13.14)

6.5.3.2.3 *Non-atomic dynamic events*

Verbs describing either atelic dynamic events (i.e. activities and unbounded changes-of-states such as so-called ‘degree achievements’ (Abusch 1986)) or non-atomic telic events (i.e. by and large accomplishments (see Caudal 1999)) that take the -Ø marker are capable of both past and present readings, as in examples (6.89) and (6.90).

The temporal distinction is clearly demonstrated in the non-atomic telic events represented in examples (6.89) and (6.90), where both examples show the identical verb form *nə-lhəkəraka-Ø*, but where the event is clearly situated in the past in example (6.89) (using the temporal adverbial *yarrungkwa* ‘yesterday’) and in the present in example (6.90) (using the temporal adverbial *enenuwiya* ‘now’).

6.89) *yarrungkwa* *n-akəna* *nenəngkwarba nə-lhəkəraka-Ø*
 yesterday 3M-that 3M.man REAL.3M>NEUT-build-USP
alhəkəra
 NEUT.house
 ‘Yesterday that man build a house’ [speaker translation]
 ‘Yesterday that man built a house’ [author translation]
 (JL, JRB1-060-02, 00.01.33-00.01.38)

6.90) *enenu+wiya* *n-aka* *nenəngkwarba nə-lhəkəraka-Ø*
 now+QUANT 3M-this 3M.man REAL.3M>NEUT-build-USP
alhəkəra

NEUT.house

‘That man builds a house’ [speaker translation]

(JL, JRB1-060-02, 00.00.22-00.00.31)

The atelic dynamic events expressed in examples (6.91) and (6.92) show this temporal underspecification even clearer. In example (6.91) the speaker is quite happy providing both a past and present reading of the same clause, while in example (6.92), in their translation of the Anindilyakwa sentence, the speaker is constantly changing temporal frames from past to present (‘he **sang**_(PST) a song, *nəmebuma, nəmebuma*, it's **singing**_(PRES). Yeah, that man **is singing**_(PRES), yeah *nakəna nenəngkwarba nəmebuma*, he **was singing**_(PST), yeah, **he singing**_(PRES), like he's **singing now**_(PRES)’).

- 6.91) *n-aka* *nenəngkwarba nen-lhekbu-Ø=ma* *n-aka*
3M-this 3M.man REAL.3M>3M-blame-USP=MUT 3M-this
nenjarrngalya
3M.boy

‘That man accused, accused, so past... accused, well... it can be both [past and present]’ [speaker translation]

(ST, JRB1-051-01, 00.19.41-00.20.01)

- 6.92) *n-akəna* *nenəngkwarba* *nə-mebu-Ø=ma*
3M-that 3M.man REAL.3M-sing-USP=MUT

‘he sang a song, *nəmebuma, nəmebuma*, it's singing. Yeah, that man is singing, yeah *nakəna nenəngkwarba nəmebuma*, he was singing, yeah, he singing, like he's singing now, *nakəna nenəngkwarba nəmebuma*’ [speaker translation]

(JL, JRB1-049-01, 00.25.23-00.25.50)

6.5.3.2.4 Statives

Stative verbs that take REALIS-V-Ø marking trigger a present interpretation, as in example (6.93).

- 6.93) *ngayuwa ngu-məreya-Ø anhəngu=wa*
 1.PRO REAL.1-be.hungry-USP NEUT.food=ALL
 ‘I’m hungry for food’ [speaker translation]
 (JL, JRB1-050-01, 00.15.27-00.15.32)

While stative verbs with this inflectional marking take a present interpretation as the unmarked temporal reference point, this can be modified depending upon contextual and discourse structural information. For instance, while the unmarked temporal reference implied by the REALIS-V-Ø marked verb *-ngwədhangma-* ‘be open’ in example (6.94) is present, this can be modified by contextual information and world knowledge, as in (6.95), in which there is a sequence of two situations that occurred successively one after another, with the first taking REALIS-V-Ø marking and the second REALIS-V-PST marking. The door can’t be open and closed at the same time, and given for the second situation, *-dhəka-jungu-* ‘closed’ is marked with the PST suffix, and the first situation, *-ngwədhangma-* ‘be open’ temporally precedes this, this situation must be temporally located in the past.

- 6.94) *na-ngwədhangma-Ø*
 REAL.NEUT-be.open-USP
 ‘The door is open’ [speaker translation]
 (JL, JRB1-023-01, 00.02.10)

- 6.95) *akəna door=a na-ngwudhangma-Ø akwa*
 and NEUT.door=PF REAL.NEUT-be.open-USP and
na-dhəka-jungu-nə=ma
 REAL.NEUT-be.closed-REFL-PST=MUT
 ‘The door is open/was open, and then the door was closed’ [author translation]
 (JL, JRB1-023-01, 00.01.54)

6.5.3.2.5 Overview of the temporal readings of phonologically Ø TAM marked verb stems

In summary, the effects of Aktionsart/event structure on aspectuo-temporal properties inflected with REALIS-V-Ø marking are shown below in Table 6.4.

	Statives	Dynamic non-atomic events	Atomic events
Past Perfective	×	✓	✓
Ongoing Present	✓	✓	×

Table 6.4 Aktionsart/event structure aspect and temporal effects

6.5.3.3 Accounting for the aspectuo-temporal features associated with phonologically Ø TAM marked verb stems

As demonstrated in the previous section (§6.5.3.2), clauses with verbs that take a Ø TAM inflectional slot can have past, present and future temporal interpretations, however these interpretations are not available with all verb types. Therefore, in this section I examine how temporal interpretation is restricted in Anindilyakwa, considering particularly the data presented in §6.5.3.2, in order to demonstrate what reference time locations are permissible, and under what conditions; how (Aktionsart/event structure) aspect influences the temporal reference point; and what pragmatic principles infer temporal reference in Anindilyakwa.

In particular, I show how a semantically underspecified approach should be followed in accounting for the temporal expression of REALIS-V-Ø inflected verbs, and that temporal interpretation is realised through the inference of aspectual properties (particularly Aktionsart/event structure) in combination with pragmatic reasoning/discourse structure (*à la* Bittner 2005; Bohnemeyer 2002, 2009; Mucha 2013; Smith and Erbaugh 2005; Smith et al 2007; etc.).

As was demonstrated in §6.5.3.2, aspectual information is a key property for interpreting temporal reference in Anindilyakwa, where strong (but cancellable) pragmatic inferences arise from Aktionsart/event structure properties.

Four key pragmatic principles that combine with aspectual properties of the predicate, developed by Smith et al (2003; 2007), were introduced in §6.5.3.1.2, and three of these principles are applicable to the analysis of REALIS-V-Ø inflected verbs in Anindilyakwa. The Deictic Principle states that “the basic pattern of temporal interpretation is deictic” (Smith & Erbaugh 2005: 714) (i.e. situations expressed in sentences are located in relation to speech time), and the Simplicity Principle of Interpretation taken together with the Temporal Scheme Principle imply that the temporal reference point of Ø marked verbs is interpreted depending upon their Aktionsart/event structure properties, where present temporal reference is more intuitive than past; and past temporal reference more intuitive than future. However, a key

feature introduced by Smith et al (2003; 2007) is the focus on the concept of boundedness, where the Bounded Event Constraint implies that bounded events (i.e. situations that have reached a temporal boundary, either implicitly or explicitly (depending upon both viewpoint aspect and Aktionsart/event structure), are not located in the present (Smith et al 2007: 45). As is clear from the data of Anindilyakwa, this is not the case for REALIS-V-Ø inflected verbs in this language. While stative verbs (which trigger a present interpretation) and verbs describing atomic telic events (i.e. non-gradual change-of-state telic verbs) (which trigger a past interpretation) follow the inference resulting from the Bounded Event Constraint (statives being unbounded and atomic events bounded); verbs describing either atelic dynamic events (i.e. activities and unbounded changes-of-states such as so-called ‘degree achievements’ (Abusch 1986)) (i.e. unbounded events) as well as non-atomic telic events (i.e. by and large accomplishments) (i.e. bounded events) are capable of both past and present readings, even in out-of-the-blue contexts.

Particularly of interest here is the ability of clauses containing non-atomic telic events to express present temporal reference points, which does not follow the prediction of the Bounded Event Constraint. As demonstrated in examples (6.89) and (6.90), this property of boundedness appears not to constrain the temporal interpretation of REALIS-V-Ø marked verbs in Anindilyakwa. Instead I suggest (as previously discussed in Chapter 4) that it is the properties of stativity and atomicity that imply temporal reference points. Thus, I suggest that three of Smith et al’s (2003; 2007) pragmatic principles can be utilised in a temporally underspecified analysis of REALIS-V-Ø marked verbs, but with the Temporal Schema Principle constrained by Stativity and Atomic Constraints:

- i) The Deictic Principle: Situations are located with respect to Speech Time (Smith et al 2007: 44);
- ii) The Simplicity Principle of Interpretation: Choose the interpretation that requires the least information added or implied (Smith et al 2007: 60);
- iii) The Temporal Schema Principle: Interpret zero-marked clauses according to the temporal schema of the situation (Smith et al 2007: 61).
 - a. Stativity Constraint: stative events are not located in the past.
 - b. Atomic Constraint: atomic events are not located in the present.

Table 6.5 demonstrates the salient properties of the Stativity and Atomic Constraints, rather than a Boundedness Event Constraint.

Stativity (vs. dynamism)	Statives		Present
	Dynamic non-atomic atelic events	Past	
Boundedness	Dynamic non-atomic telic events		Past
	Atomic events		
Atomicity (vs. non-atomicity)			

Table 6.5 Stativity and atomicity properties (not boundedness properties) constrain temporal interpretations of REALIS-V-Ø inflected verbal predicates in Anindilyakwa⁹⁰

While Aktionsart/event structure can infer the temporal interpretation, so too can pragmatic reasoning and discourse relations (which can be demonstrated and analysed by e.g. SDRT (cf. Asher & Lascarides 2003)).

In summary, the means with which temporal reference can be marked or inferred in Anindilyakwa can be demonstrated by Figure 6.3, where formal marking (such as the combination of portmanteau prefixes + phonologically overt TAM suffixes) can overtly express temporal reference, but equally where (particularly) the combination of the portmanteau prefix + phonologically Ø TAM marker, can be inferred via Aktionsart/event structure properties, contextual or discourse-structural information, or world knowledge.

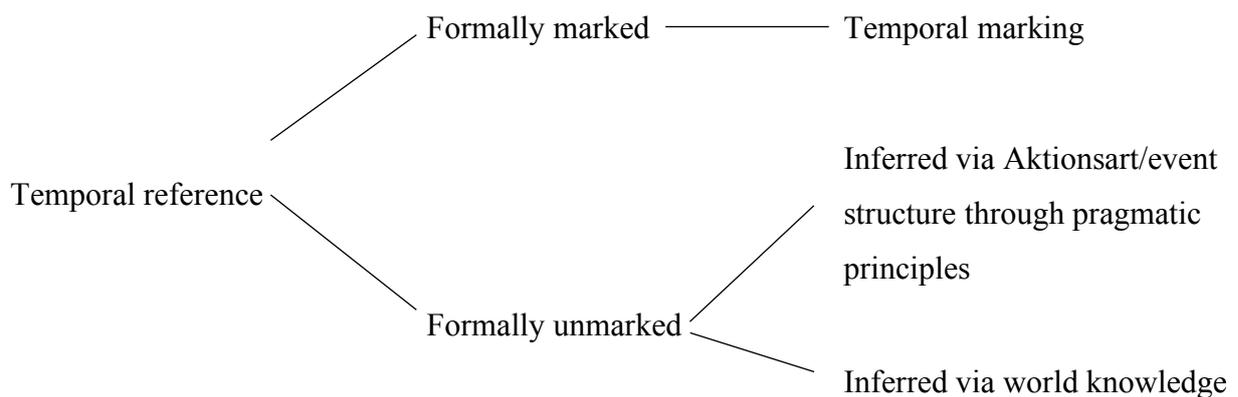


Figure 6.3 Temporal reference in Anindilyakwa

⁹⁰ Grey shading indicates that this temporal interpretation is disallowed.

6.6 The Anindilyakwa T/A system in the context of the Gunwinyguan language family

Following this examination of the inflectional T/A system of Anindilyakwa, I now put this system into context, comparing it with other Gunwinyguan (particularly eastern Gunwinyguan) languages.

As was demonstrated by van Egmond (2012), Anindilyakwa is most closely related to Wubuy, with the two languages, along with the Eastern Gunwinyguan subgroup, making up the *bak* subgroup of the Gunwinyguan language family. See Figure 1.1 for a tree-diagram representation of the Gunwinyguan language family.

It has been widely documented that most Gunwinyguan languages demonstrate a past vs. non-past contrast, and within this a distinction between a past perfective and past imperfective category (Alpher, Evans & Harvey 2003). This is demonstrated in Table 6.6, comparing the T/A inflectional categories of Bininj Kunwok, Ngalakgan, Rembarrnga, Ngandi and Wubuy with those of Anindilyakwa.

	BGW (Evans 2003)	Ngalakgan (Merlan 1983)	Rembarrnga (Saulwick 2003)	Ngandi (Collins 2015)	Wubuy (Heath 1984)	Anindilyakwa
Non-past	Non-past	Non-past	Non-past	Present	Non-past 2	NON-PAST
				Future	Non-past 1	-Ø
Past	Past perfective	Past punctual	Past punctual	Past punctual	Past 1	PAST
	Past imperfective	Past continuous	Past continuous	Past continuous	Past 2	
			Past habitual			

Table 6.6 Comparison of T/A inflectional categories across Gunwinyguan languages

As can be observed in Table 6.6, the Anindilyakwa T/A inflectional system differs from the other Gunwinyguan languages, particularly with respect to the aspectual properties of the past category. Instead of a perfective/imperfective past distinction, Anindilyakwa has an aspectually underspecified past category, as well as the phonologically -Ø category, whose T/A properties

we've seen are complex, but include a past perfective reading for dynamic verbs. I argue in §6.6.1 that the $-\emptyset$ category in Anindilyakwa derives historically from a past perfective marker (which in Proto-*bak* was formally realised as a nasal stop), but which reduced to $-\emptyset$ in Anindilyakwa, and as such has undergone substantial change with respect to the aspectuo-temporal properties it encompasses.

6.6.1 History of the $-\emptyset$ marker in the context of the *-bak* subgroup of the Gunwinyguan language family

As we saw in Table 6.6, the Anindilyakwa T/A inflectional system differs from the other Gunwinyguan languages, and if we focus especially on the *-bak* subgroup (particularly Anindilyakwa, Wubuy and Ngandi) the most pronounced difference is that between the $-\emptyset$ category of Anindilyakwa to the P1/NP1 categories of Wubuy and Ngandi.

In Wubuy, Heath (1984) describes the NP1, NP2, P1 and P2 categories as expressing Non-past punctual, Non-past continuous, Past punctual and Past continuous readings respectively, and in Ngandi Heath (1978) describes the NP1, NP2, P1 and P2 categories as expressing Future, Present, Past punctual and Past continuous readings respectively. In contrast, in Anindilyakwa the NP1 and P1 categories are collapsed into one $-\emptyset$ marked category.

Tables 6.7-6.10 display the inflections for the PAST (P2), \emptyset (P1/NP1) and NON-PAST (NP2) categories for these three languages, organised by conjugation class. Four conjugation classes of Anindilyakwa that have corresponding conjugation classes in Wubuy and Ngandi are displayed below: Anindilyakwa class 1A (class I₁ in Wubuy and 3a in Ngandi) in Table 6.7; Anindilyakwa class 2A (class A₃ in Wubuy and irregular classes in Ngandi) in Table 6.8; Anindilyakwa Class 3 (class N in Wubuy and 5 in Ngandi) in Table 6.9; and Anindilyakwa Class 4 (A₁ in Wubuy and 4a in Ngandi) in Table 6.10.

	PST/ P2	\emptyset / P1	\emptyset / NP1	NPST / NP2
Anindilyakwa	<i>-nə</i>	<i>-\emptyset</i>		<i>-na</i>
Wubuy	<i>-ni</i>	<i>-ny</i>	<i>-ny</i>	<i>-na</i>
Ngandi	<i>-ni</i>	<i>-ny</i>	<i>-ng</i>	<i>-na</i>

Table 6.7 Classes: 1A (Anindilyakwa), I₁ (Wubuy), 3a (Ngandi)

	PST/ P2	Ø/ P1	Ø/ NP1	NPST / NP2
Anindilyakwa	<i>-ngə~nga</i>	<i>-Ø</i>		<i>-na</i>
Wubuy	<i>-ngi</i>	<i>-ny</i>	<i>-ng</i>	<i>-ni</i>
Ngandi	<i>-ni</i>	<i>-ny</i>	<i>-yang</i>	<i>-ni</i>

Table 6.8 Classes: 2A (Anindilyakwa), A₃ (Wubuy), irregular (Ngandi)

	PST/ P2	Ø/ P1	Ø/ NP1	NPST / NP2
Anindilyakwa	<i>-nə</i>	<i>-Ø</i>		<i>-ja</i>
Wubuy	<i>-n-di</i>	<i>-ng</i>	<i>-ng</i>	<i>-n-jii</i>
Ngandi	<i>-n-di</i>	<i>-ng</i>	<i>-n</i>	<i>-n-jini</i>

Table 6.9 Classes: 3 (Anindilyakwa), N (Wubuy), 5 (Ngandi)

	PST/ P2	Ø/ P1	Ø/ NP1	NPST / NP2
Anindilyakwa	<i>-Ø</i>	<i>-Ø</i>		<i>-na</i>
Wubuy	<i>-a</i>	<i>-ny</i>	<i>-ng</i>	<i>-na</i>
Ngandi	<i>-ri</i>	<i>-ng</i>	<i>-rang</i>	<i>-na</i>

Table 6.10 Classes: 4 (Anindilyakwa), A₁ (Wubuy), 4a (Ngandi)

As can be observed in these tables, all P1 and NP1 categories in Wubuy and Ngandi are formally realised as a nasal stop, with the P1 generally realised as a palatal nasal (*-ny*) and the P2 a velar nasal (*-ng*) (aside from Ngandi classes 3a and 4a, in which the NP1 categories are realised as *-yang* and *-rang* respectively). These forms that are realised as a nasal stop are shaded in grey in the above tables.

Given that Anindilyakwa disallows final consonants, I suggest that the *-Ø* category might derive historically from a TAM marker formally realised as a nasal stop, that has reduced to *-Ø* due to the ban on consonant final codas in the language. van Egmond (2012: 347) speculated about this plausibility, and given my reanalysis of the TAM suffixal system (e.g. not considering the suffix *-ya* as an allomorph of the ‘NP1’ category, but rather a modal suffix), this correspondence between overt nasal P1/NP1 markers and the *-Ø* category of Anindilyakwa appears very systematic and constant across conjugation classes of these three languages.

6.7 Summary

The obligatory series of portmanteau prefixes + suffixal TAM slot in the verbal template (i.e. paradigms of two discontinuous slots of the verb template), express a range of different TAM categories in Anindilyakwa.

One of the key objectives of this chapter considered how temporal reference is expressed in Anindilyakwa, focussed on past and present temporal expression (with other ‘non-actualised’ readings, involving IRREALIS and DEONTIC paradigms discussed in Chapter 9). Past and present temporal readings are expressed through (obligatory) inflectional verbal morphology (REALIS-V-PST/NPST/Ø inflectional marking), as well as through optional temporal markers (e.g. temporal adverbials).

Temporally, the Anindilyakwa inflectional T/A system lacks contrastiveness in many of its paradigmatic forms, displaying fairly widespread syncretism, which can obscure the identification of temporal contrasts. While the PAST and NON-PAST markers themselves encode a past/non-past temporal distinction (in combination with REALIS portmanteau prefix), the form of these markers is often neutralised (with the result that the two markers are both realised with an identical form word-finally) due to morpho-phonological processes. Alternatively, verbs can occur with no phonologically overt form in the [+3] slot of the verbal template, where temporal reference is inferred through Aktionsart/event structure aspect properties, in addition to discourse structural parameters.

One of the most noticeable aspects of the inflectional T/A system of Anindilyakwa is the highly syncretic nature of many of the T/A markers, and the resulting lack of contrastiveness in many of the form/meaning pairings. This is in addition to a lack of semantic specificity of the T/A forms (which is especially apparent with REALIS-V-Ø marking). Given this lack of overt inflectional temporal distinction, many Anindilyakwa sentences appear without overt temporal information, with sentences occurring without a phonologically overt inflectional tense/aspect marker, or without a temporal particle or adverb, and thus rely upon Aktionsart/event structure properties and discourse structural parameters to provide the necessary infrastructure to express the temporal framing of the situation.

With respect to aspect, Anindilyakwa does not have a strong inflectional viewpoint aspect system. Inflectional paradigms of portmanteau prefix + PAST/NON-PAST are aspectually underspecified (where situations marked with these T/A markers can be both open or closed, determined largely by Aktionsart/event structure aspect, context and world knowledge) and the -Ø marker is aspectually (as well as temporally) underspecified.

The phonologically \emptyset slot of the TAM inflectional paradigm (i.e. realised by the absence of a phonologically overt marker in the [+3] slot of the verbal template), in combination with the portmanteau prefix paradigm, is involved in a range of complex T/A functions. REALIS inflected verbs carrying the phonologically \emptyset marker are temporally and aspectually underspecified, however temporal and aspectual readings can be inferred from Aktionsart/event structure aspectual properties of the verb complex; atomic events take past temporal reference, non-atomic dynamic events are able to express both present and past temporal reference, while states take present temporal reference. REALIS-V- \emptyset inflected verbs that take past temporal reference, express aspectually perfective viewpoint readings.

An important topic discussed in this chapter concerns the question of what triggers the temporal interpretation of inflectionally bare verb stems (i.e. phonologically \emptyset marked verbs). For REALIS-V- \emptyset marked verbs, I show that Aktionsart/event structure is often important in inferring temporal information. Stative verbs trigger a present interpretation; verbs describing atomic telic events a past interpretation; and verbs describing either atelic dynamic events (i.e. activities and unbounded changes-of-states such as so-called ‘degree achievements’ or non-atomic telic events (i.e. by and large accomplishments) are capable of both past and present readings. I suggested an underspecified aspectuo-temporal analysis, where the temporal interpretation is realised through the interaction between Aktionsart/event structure and pragmatic reasoning/discourse structure.

Chapter 7

Devices for expressing imperfective aspectual readings

As demonstrated in Chapter 6, Anindilyakwa does not demonstrate a strong inflectional perfective vs. imperfective aspectual viewpoint opposition, thus non-inflectional aspectual devices are regularly employed to effectively convey aspectual nuances. This chapter examines such aspectual devices in more detail, in particular examining devices involved in imperfective aspectual readings.

Building upon discussion of aspectual properties of the verb, including Aktionsart/event structure aspect (Chapters 4 and 5) and inflectional tense/aspect (Chapter 6), I continue to examine aspectual expression in this chapter by considering the non-inflectional aspectual device of verbal reduplication (§7.1), prosodic lengthening (§7.2), as well as the interaction of Aktionsart and inflectional tense/aspect marking with aspectual particles and adjectives involved in (imperfective) aspectual readings (§7.3).

7.1 Reduplication

Reduplication, a common feature across Australian languages (Fabricius 1998), is a derivational process that can occur in both verbs and nominals in Anindilyakwa. Reduplication within nominals is primarily used to express intensification/quantity/plurality, while in verbs

(in addition to this) it can also act as an Aktionsart/event description modifier⁹¹. Discussion of the form of reduplication patterns in §7.1.1 covers both nominal and verbal reduplication, while discussion of the semantics of reduplication in §7.1.2 focusses on the verbal complex.

7.1.1 Reduplication: Form

The reduplication template is primarily influenced by the stem-initial consonant; whether it is an obstruent, or a sonorant. Where the initial syllable of the stem contains an obstruent (including either a consonant (obstruent)-initial stem, or a vowel-initial stem directly followed by an obstruent), the reduplicated segment is monosyllabic. Where the initial syllable of the stem contains a sonorant (either a consonant (sonorant)-initial stem, or a vowel-initial stem directly followed by a sonorant), the reduplicated segment is di- or trisyllabic (Heath n.d.; van Egmond 2012). Reduplication patterns copy leftward, thus reduplicated segments occur prefixed to the stem, often directly following the inflectional pronominal prefix of the verb.

Reduplicated segments are generally monosyllabic or disyllabic, regardless of the syllabic template of the stem. For bi- and quadrisyllabic stems, the reduplicated segment takes the form C for obstruent-initial stems, VC for vowel+obstruent initial stems, CVC for sonorant-initial stems, and VCVC for vowel+sonorant initial stems (see Tables 7.1 and 7.3). These reduplicated segments are followed by an epenthetic vowel, which may be elided. Compare examples (7.1) and (7.2).

- 7.1) *nə-ərribərriba nə-meb-mebi-nə=mərri*
 3M-keep.on REAL.3M-REDUP-sing-PST=MUT
 ‘He kept on singing’ [author translation]
 (ST, JRB1-037-01, 00:05:56-00:06:01)

- 7.2) *nə-mebə-mebi-nə=ma*
 REAL.3M-REDUP-sing-PST=MUT
 ‘He used to sing/ he went on singing’ [source translation]
 (Stokes 1982: 88)

⁹¹ The semantics of verbal reduplication demonstrates considerable consistency across the continent as an Aktionsart/event structure modifier. Dixon (2002: 201) suggests that 90% of Australian languages have a process of verbal reduplication, which is generally used to express imperfective or durative/continuative aspectual readings (Fabricius 1998: 14).

For trisyllabic stems, the reduplicated segment generally takes the same pattern as that described above for bi- and quadrisyllabic stems, however some trisyllabic stems may also be fully reduplicated, resulting in a trisyllabic reduplicated segment (rather than the partial reduplication pattern that is generally encountered). Compare examples (7.3) and (7.4), where (7.3) follows the regular pattern of a CVC reduplicated segment (for a sonorant-initial stem), while (7.4) involves the full reduplication of the sonorant-initial stem.

7.3) *a-wurru-wurrakə-dhərrbəra*
 NEUT-REDUP-many-straight
 ‘Many straight sticks’ [source translation]
 (Leeding 1989: 227)

7.4) *na-mərndakə-mərndakə-məreya-ngə=ka*
 REAL.3A-REDUP-many-be.hungry-PST=EMPH
 ‘They were all very hungry’ [source translation]
 (Leeding 1989: 427)

Tables 7.1-7.2 display the different regular reduplication templates (with examples) for bi-, tri- and quadrisyllabic stems.

Initial consonant of base	Base	Reduplicant	Gloss
Obstruent (Obstruent+Vowel):	<i>CVC(C)V</i> e.g. <i>-kura-</i> e.g. <i>-ngkarrnga-</i>	<i>CV-CVC(C)V</i> e.g. <i>-ku-kura-</i> e.g. <i>-ngkə-ngkarrnga-</i>	‘hook fish’ ‘tear’
	(Vowel+Obstruent): <i>VCV(C)</i> e.g. <i>-eki-</i> e.g. <i>-ambarr-</i>	<i>VC-VCV(C)</i> e.g. <i>-ək-eki-</i> e.g. <i>-amb-ambarr-</i>	‘fire’ ‘sit’
Sonorant (Sonorant+Vowel):	<i>CVC(V)</i> e.g. <i>-mebi-</i> e.g. <i>-lhakba-</i>	<i>CVC(V)-CVCV</i> e.g. <i>-mēb-mēbi-</i> e.g. <i>-lhakbə-lhakba-</i>	‘sing’ ‘blame’

Table 7.1 Reduplication patterns of disyllabic stems

Initial consonant of base	Base	Reduplicant	Gloss
Obstruent (Obstruent+Vowel):	<i>CVCV</i> e.g. <i>-dhiyara</i> e.g. <i>-dhərrərnda-</i>	<i>CV-CVCV</i> e.g. <i>-dhə-dhiyara</i> e.g. <i>-dhə-dhərrərnda-</i>	‘girl’ ‘descend’
	(Vowel+Obstruent):	<i>VCVCV</i> e.g. <i>-akumə-</i>	‘put’
Sonorant (Sonorant+Vowel):	<i>CVC(C)(C)VCV</i> e.g. <i>-wurrakə-</i> e.g. <i>-mungkulhi-</i> e.g. <i>-mərkkalya-</i>	<i>CVCV-CVC(C)(C)VCV</i> e.g. <i>-wurru-wurrakə-</i> e.g. <i>-mungku-mungkulhi-</i> e.g. <i>-mərə-mərkkalya-</i>	‘many’ ‘sleep’ ‘newborn baby’
	(Vowel+Sonorant):	<i>CVCVCV</i> e.g. <i>-mərndakə-</i>	‘many’
	<i>VCVCV</i> e.g. <i>-arəma-</i>	<i>VCVC-VCVCV</i> e.g. <i>-arəm-ərɤma-</i>	‘big’

Table 7.2 Reduplication patterns of trisyllabic stems

Initial consonant of base	Base	Reduplicant	Gloss
Obstruent (Obstruent+Vowel):	<i>VCVCVCVCV</i> e.g. <i>-dhərrungwarnə-</i>	<i>CV-CVCVCVCVCV</i> e.g. <i>-dhə-dhərrungwarnə-</i>	‘big’
	(Vowel+Obstruent):	<i>VCVCVCVCV</i> e.g. <i>-abarəma-</i> e.g. <i>-embirrarə-</i>	‘search’ ‘wait’
Sonorant (Sonorant+Vowel):	<i>CVVCVCVC(C)V</i> e.g. <i>-wurrariya-</i> e.g. <i>-mədhilyakbə-</i>	<i>CVCV-CVCVCVC(C)V</i> e.g. <i>-wurru-wurrariya-</i> e.g. <i>-mədhə-mədhilyakbə-</i>	‘bad’ ‘cough’
	(Vowel+Sonorant):	<i>VCVCVCVCV</i> e.g. <i>-angariya-</i> e.g. <i>-awinyamba-</i>	‘young’ ‘angry’

Table 7.3 Reduplication patterns of quadrisyllabic stems

While the reduplication patterns are generally regular, as displayed by the reduplication templates outlined above, there are some irregularities, particularly involving monosyllabic incorporated nominals. For a small number of monosyllabic incorporated nominals, where the final consonant of the incorporated nominal is a nasal of the same place of articulation as the initial consonant of the verbal root, the reduplicated segment consists of a CVC pattern, where the final consonant is a complex prenasalised consonant, involving the consonants of the incorporated nominal and the verb root. This is demonstrated in (7.5), where the incorporated nominal + verb root *-mam-baji-* ‘hands-hit’ generates the reduplicated segment *-mambə-*.

- 7.5) *arakba+wiya* *nara+wiya* *wurrə-mangkadhərri=lhangwa*
 COMPL.ACT+QUANT NEG+QUANT 3A-white.person=ABL
angwura, *warnumamalya* *na-mambə-mam-baji-nə=ma*
 NEUT.fire 3A.people REAL.3A-REDUP-hands-hit-PST=MUT
miyanga *kajungwa* *warnə-kə-lhəraki=yedha* *angwura*
 VEG.firesticks so.that 3A.M-NSR-light.fire=PURP NEUT.fire
 ‘A long time ago before white people brought matches and lighters, our people
 used to rub firesticks to light a fire’
 (Groote Eylandt Linguistics 1993: 198)

Other monosyllabic incorporated nominals can be reduplicated with an additional nasal, not contained in the original stem, as in (7.6), where the monosyllabic incorporated nominal *-lyang-* is reduplicated as *-lyangmi-*.

- 7.6) *kəngə-ma-lyangmi-lyang-badje-na=ma* *ma-m-adhangkwa* *m-akəna,*
 IRR.3F-VEG-REDUP-head-hit-NPST=MUT VEG-INALP-flesh VEG-that
kəngə-m-akakumə-rna=ma *bi...ya*
 IRR.3F-VEG-REDUP.put-NPST=MUT and.then.XTD
kəngə-ma-jerrukwa-Ø
 IRR.3F-VEG-finish-USP
 ‘She will keep on cracking the burrawang nuts, she will keep putting them
 aside until she finishes them’
 (van Egmond 2012: 219)

There are some further irregular reduplication patterns of verbal bases, which also involve the addition of nasals, as in (7.7).

- 7.7) *k-angəb-anga-na=mər̥ra* *warnumamalya*
 IRR.1-REDUP-bite-NPST=MUT 3A.people
 ‘I’ll always bite people’
 (GL, A3369a Side2, a3.8 ‘Crocodile and blue-tongued lizard’, 00.10.13-00.10.15)

Other irregularities and exceptions to regular reduplication patterns involve irregular monosyllabic reduplicated segments of sonorant-initial stems (which would be expected to be disyllabic), as in examples (7.8) and (7.9) (van Egmond 2012: 78).

- 7.8) *-aly-elyəbara-* (from *-alyəbara-*) ‘eat’
 7.9) *-lha-lhəkə-* (from *-lhəkə-*) ‘go’

A very frequent irregular reduplicated verb is *-yemə-* ‘do, make, say’, whose reduplicated form is *-yamin-jamə-* ~ *-yam-jamə-*, involving the hardening of the stem from /j/ to /j̥/, and the (variable) additional final nasal in the reduplicated segment. van Egmond (2012: 79) suggests this nasal is a reduplicated NPST TAM suffix, reduplicated along with the verb stem as the reduplicated segment. However, I suggest this is dubious, given that this additional nasal can occur in reduplicated forms without an overt TAM marker (as in (7.10)) and furthermore, that the inclusion of the final nasal is variable, with this final nasal appearing in the reduplicated segments in legacy material collected in the 1970s-90s, however in the material I collected in 2015-19, the reduplicated segment occurs without the additional nasal, as *-yem-jam-* (example (7.11)).

The addition of nasals in reduplicated segments not contained in the original base, as seen in examples (7.10) and (7.11) needs further investigation, and this will be left to future research to examine.

- 7.10) *nenu-bibe-yi-ne=ka* *wun-alh-akəna*
 REAL.3M.DU-argue-RECIP-PST=EMPH 3M.DU-DU-that
neni-yamin-jama-Ø *ngəwa*

REAL.3M.DU-REDUP-do-PST continue
 ‘They **kept on** arguing’ [source translation]
 (GL, A3369a Side1, a3.9 Yukwurrkwa-langwa akwa yingwa-langwa
 ‘Frogmouth and crow’)

- 7.11) *ni-yem-jem-Ø* *ngəw* *n-adhər̄ra-ng=m*
 REAL.3M-REDUP-do-PST continue REAL.3M>NEUT-pierce-PST=MUT
akən *jurr=dha*
 NEUT.that NEUT.paper=TRM
 ‘He kept stabbing the paper [bag]’ [author translation]
 (ST, JRB1-037-01, 00:23:45-00:23:49)

7.1.2 Reduplication: Semantics

Reduplication is used to express intensification and quantity/plurality, as well being an Aktionsart/stage-aspect modifier, focussing on the ‘core’ inner stages of atelic situations, and pluractionality of telic situations. For nominals, reduplication expresses intensification/quantity/plurality, while within the verbal domain reduplication can be used to express these same functions, as well as acting as an Aktionsart/event description modifier. In this section I discuss only reduplication in the context of the verbal domain.

Within the verbal template, the QUANTIFIER [-3], incorporated nominal [-1] and the verb stem [0] can all be reduplicated. Reduplication of the QUANTIFIER is used to emphasise the plurality/quantity of the Subject or Object, as in example (7.12), where reduplication of the QUANTIFIER *-mər̄ndakə-* emphasises the large group of people involved in the event.

- 7.12) *abər̄ruwa* *narra-mər̄ndakə-mər̄ndakə-mureyi-na=ma*
 3A.PRO REAL.3A-REDUP-many-be.hungry-NPST=MUT
 ‘They getting hungry’ [speaker translation]
 (JL, fieldnotes, 19/11/2018)

Reduplication of the incorporated nominal or the verb stem, on the other hand, is used to express intensity, or as an Aktionsart/stage-aspect modifier. The semantic difference between reduplication of the incorporated nominal vs. the verb stem is not clear, and requires further research.

The difference between the reduplication of the QUANTIFIER (to emphasise the plurality/quantity of the Subject/Object) vs. reduplication of the verb stem (to highlight the intensity of the situation) can be observed by comparing (7.12) to (7.13).

- 7.13) *abərruwa* *narra-mərndakə-murey-mureyi-na=ma*
 3A.PRO REAL.3A-many-REDUP-be.hungry-NPST=MUT
 ‘They getting [really] hungry’ [speaker translation]
 (JL, fieldnotes, 19/11/2018)

This means that it is possible to have forms with two reduplicated segments, indicating both emphasis of plurality, as well as intensity of the situation, as in example (7.14).

- 7.14) *abərruwa* *narra-mərndakə-mərndakə-murey-mureyi-na=ma*
 3A.PRO REAL.3A-REDUP-many-REDUP-be.hungry-NPST=MUT
 ‘They [big mob] getting [really] hungry’ [author translation]
 (JL, fieldnotes, 21/06/2019)

The expression of intensification/quantity/plurality through reduplication of the QUANTIFIER, incorporated nominal or verb stem can occur with verbs with different Aktionsart/event structure aspect properties, and can take phonologically overt (e.g. PST/NPST) as well as phonologically Ø TAM suffixation. Compare examples (7.12) and (7.13) to example (7.15).

- 7.15) *abərruwa* *narra-mərndakə-murey-mureya-Ø*
 3A.PRO REAL.3A-many-REDUP-be.hungry-USP
 ‘They getting [really] hungry’ [speaker translation]
 (JL, fieldnotes, 19/11/2018)

The most frequent use of reduplication within the verbal domain is as an Aktionsart/stage-aspect modifier. Here, reduplication occurs with atelic verbs centring on the ‘core’ inner stages of atelic situations, in order to focus on the progression of the situation. This can occur with past, present and future temporal anchoring of the situation, with verbs inflected with REALIS, IRREALIS and DEONTIC prenominal paradigms, and PST and NPST TAM suffix paradigms. This is demonstrated in examples (7.16) – (7.21).

- 7.16) *n-emb-ambərarə-nə=ma* *ngəwa* *wurr-ababərnə=lhangwa*
 REAL.3M-REDUP-wait-PST=MUT continue 3A-many=POSS
*ka-mungku-mungkulhi-je-yi-nə=mərru=wa*⁹²
 IRR.3A-REDUP-sleep-CAUS-RECIP-PST=DEP=ALL
 ‘He kept on waiting until everyone was sleeping’
 (Leeding 1989: 405)
- 7.17) *ngarra-rraka-rrak+aya-nga*
 REAL.12A-REDUP-forehead-be.upright-PST
 ‘We [kept] on sitting’ [source translation]
 (Leeding 1989: 358)
- 7.18) *nə-mebə-mebi-nə=ma*
 REAL.3M-REDUP-sing-PST=MUT
 ‘He used to sing/ he went on singing’ [source translation]
 (Stokes 1982: 88)
- 7.19) *nə-lharrma-lharrma-na=mərra*
 REAL.3M>NEUT-REDUP-chase-NPST=MUT
 ‘He keeps on chasing it’ [source translation]
 (Leeding 1989: 358)
- 7.20) *kə-lhəka-ja=ma* *nəngk-ena* *mardədarra=manja*
 IRR.2-go-NPST=MUT 2-this VEG.heat.of.sun=LOC
kə-karri-jungu-na=ma *mardədarra=manja* *akwa*
 IRR.2-roast.in.ashes-REFL-NPST=MUT VEG.heat.of.sun=LOC and
kə-ku-kunu-murkulha=ma *nəngk-akəna*
 IRR.2-REDUP-body-lie.down-NPST=MUT 2-that
 ‘You should go in the hot sun and you should put hot sand on yourself and
 you should keep lying down’ [source translation]
 (NJ, A337a Side1, a5.22 Yininya-langwa ‘About bristle worms’)

⁹² Reduplication of the second verb of this example, *-mungkulhi-* ‘sleep’, indicates pluractionality.

- 7.21) *kəng-aly-alyəba-rna*
 IRR.3F>NEUT-REDUP-eat-NPST
 ‘She will eat and eat it’ [source translation]
 (Leeding 1989: 358)

Often, the reciprocal suffix *-yi-* occurs with reduplicated stems, related to the collective reading of the verb (van Egmond 2012: 177) (examples (7.22) and (7.23)).

- 7.22) *-abərangka-* ‘look for’;
-a-bə-bərangkee-yi- ‘keep on looking for’
 (van Egmond 2012: 177)

- 7.23) *-malyangka-* ‘play’;
‘-malyə-malyangkee-yi- ‘keep on playing’
 (van Egmond 2012: 177)

The most frequent reduplicated verb is *-yamə-* ‘do, say’ (which takes the irregular reduplicant form *-yamən-jəmə-*). This can be used independently in a clause to describe a general event, as in (7.24) (i.e. ‘he kept on doing [something]’), or alternatively can be used in combination with another verb, whereby the reduplicated *-yamə-* ‘do, say’ occurs as an Aktionsart/stage-aspect modifier, while the other verb expresses the lexical content of the event, such as *-adhərɾa-* ‘stab’ in (7.25) (i.e. ‘keep on doing the stabbing’) or *-bibe-* ‘argue’ in (7.26) (i.e. ‘keep on doing the arguing’).⁹³

- 7.24) *ni-yeng-jem-Ø* *ngə:::wa*
 REAL.3M-REDUP-do-PST continue.XTD
 ‘[He] kept on doing it’
 (ST, JRB1-037-01, 00:19:07-00:19:12)

- 7.25) *ni-yem-jem-Ø* *ngəw* *n-adhərɾa-ng=m*
 REAL.3M-REDUP-do-PST continue REAL.3M>NEUT-pierce-PST=MUT

⁹³ However note also the *ngəwa* ‘continue’ particle in these three examples (7.24) – (7.26). See §7.3 for further discussion.

akən *jurr=dha*
 NEUT.that NEUT.paper=TRM
 ‘He kept stabbing the paper [bag]’ [author translation]
 (ST, JRB1-037-01, 00:23:45-00:23:49)

7.26) *nenu-bibe-yi-ne=ka* *wun-alh-akəna*
 REAL.3M.DU-argue-RECIP-PST=EMPH 3M.DU-DU-that
neni-yamin-jama-Ø *ngəwa*
 REAL.3M.DU-REDUP-do-PST continue
 ‘They **kept on** arguing’ [source translation]
 (GL, A3369a Side1, a3.9 Yukwurrkwa-langwa akwa yingwa-langwa
 ‘Frogmouth and crow’)

Reduplicated atelic verbs, functioning as an Aktionsart/event structure aspect modifier, occur only with phonologically overt TAM suffixes, with the phonologically Ø TAM slot disallowed in these contexts (e.g. (7.27) and (7.28)).

7.27) **n-akəna* *nə-lharrma-lharrma-Ø*
 3M-that REAL.3M>NEUT-REDUP-chase-USP
 ‘He keeps on chasing [it]’
 (JL, fieldnotes, 19/11/2018)

7.28) **kəng-aly-alyəba-Ø*
 IRR.3M-REDUP-eat-USP
 ‘He will keep on eating’
 (JL, fieldnotes, 19/11/2018)

There has been just one telic predicate identified, *-lhawurradhə-* ‘return’, which can be reduplicated with an aspectual meaning. When reduplicated, the reduplication coerces a pluractional reading, as displayed in example (7.29). Interestingly, *-lhawurradhə-* ‘return’ is also the only telic predicate identified that can occur with the aspectual function of prosodic lengthening (with all other predicates that allow prosodic lengthening being atelic) (see §7.2 for further discussion).

It appears that telic reduplicated verbs (i.e. *-lhawurradhə-* ‘return’, given that it is the only telic verb identified that can occur with reduplication as an Aktionsart/stage-aspect modifier), unlike atelic reduplicated verbs, can take the bare stem inflectional paradigm (i.e. the phonologically \emptyset [+3] TAM slot of the verbal template).

- 7.29) *na-lhawu-lhawurradh- \emptyset* , *nuw-angkarra- \emptyset*
REAL.NEUT-REDUP-return-USP REAL.NEUT-run-USP
‘It [the mother cat] kept going back, it ran off’
(GL, A3369a Side1 a3.4, Bujikeda ‘Mother cat’, 00.07.28-00.07.32)

Reduplication is obligatory with non-past negative situations that take the IRREALIS prefix + NPST suffix, expressing negative habituality (as opposed to the standard NEG.NPST circumfix that is used in all other negative non-past circumstances) (see §9.6.2 for more details).

7.1.3 Repetition

Related to, but distinct from reduplication, verbs can be repeated in their entirety in order to express sustained or repeated situations, as in example (7.30).

- 7.30) *yin-arrak-arrangba- \emptyset =ma* *akəna*
REAL.1M.DU>NEUT-round.and.hollow-collect-PST=MUT NEUT.that
yin-arrak-arrangba- \emptyset =ma *yinimamuwa*
REAL.1M.DU>NEUT-round.and.hollow-collect-PST=MUT NEUT(?)egg
yin-arrak-arrangba- \emptyset =ma
REAL.1M.DU>NEUT-round.and.hollow-collect-PST=MUT
‘We collected eggs again and again’
(Stokes 1971: 31)

Unlike with reduplication, repetition of verbal complexes can occur with verbs that take the bare stem inflectional paradigm (i.e. the phonologically \emptyset [+3] TAM slot of the verbal template), where an iterative reading is expressed, as in example (7.31) (i.e. ‘he went, and he went, and he went’).

- 7.31) *ngaringka* *yingə-lhəka-Ø* *yingə-lhəka-Ø*
 again REAL.3F-go-USP REAL.3F-go-USP
 ‘She kept on going’
 (Stokes 1971: 31)

7.2 Prosodic lengthening

Prosodic lengthening (so-called ‘high-stylized contour’ (Bishop & Fletcher 2005)) is not an uncommon feature of Australian languages, particularly languages of Northern Australia, where it has been identified in, amongst others, Gooniyandi (Bunuban) (McGregor 1990), Western Garrwa (Garrwan) (Mushin 2012), Bininj Kunwok (Gunwinyguan) (Bishop 2002), Wubuy (Gunwinyguan) (Heath 1984), Iwaidja (Iwaidjan) (Caudal & Mailhammer 2016), Kija (Jarrakan) (Kofod 1996), Alawa (Marran) (Sharpe 1972), Jaminjung (Mirndi) (Simard 2010), Bilinearra (Pama-Nyungan, Ngumpin-Yapa) (Nordlinger & Meakins 2014), Warlpiri (Pama-Nyungan, Ngumpin-Yapa) (Chapman 2007, cited in Simard 2010) and Ungarinyin (Worrorran) (Rumsey 1978).

Prosodic lengthening is present, too, in Anindilyakwa, where two kinds of prosodic lengthening can be identified: i) lengthening as an aspectual device, restricted to the verb phrase (VP) (mainly occurring on verbal predicates), and further restricted to atelic predicates, occurring on the final syllable of the clause (generally verb- or VP-finally); and ii) lengthening as a discourse marking device, emphasising the topic, which can occur on any part of speech, and is not restricted to the final syllable (occurring on either the initial, second, penultimate or final syllable). These distinctions are displayed in Table 7.4.

	Aspectual	Discourse-emphatic
Place of lengthening?	Clause finally (generally verb- or VP-finally)	Initial, second, penultimate or final syllable of any part of speech
Speech sound that can be lengthened?	Vowels	Continuants (i.e. including vowels, laterals, rhotics and nasals)
Semantic restriction?	Atelic predicate	No restriction

Fall in intonation immediately following lengthened syllable?	Yes	No
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Table 7.4 Aspectual vs. discourse-emphatic functions of prosodic lengthening

Previous work, e.g. Bishop’s (2002) work on Bininj Kunwok, has suggested that prosodic lengthening conveys ‘durative aspect’, as well as iconically ‘dramatising’ the ongoing nature of the action’. I suggest that a similar pattern can be observed in Anindilyakwa, however that this can be analysed and described more systematically. As demonstrated in Table 7.4 (and as is discussed in detail in §7.2.1 and §7.2.2) there are two distinct uses of prosodic lengthening in Anindilyakwa, that have different selectional restrictions. Prosodic lengthening as an aspectual device is a means of grammatical marking, with conventionalised selectional restrictions. The discourse-emphatic use of prosodic lengthening, on the other hand, occurs in a different environment (not restricted to syllable-final position), and without the semantic restrictions of the aspectual lengthening function.

7.1.1 *Prosodic lengthening as an aspectual device*

In Anindilyakwa, intonational contour is used as an aspectual device, by lengthening the final syllable of the clause (generally the final syllable of the verbal complex or verb phrase). As with verb reduplication, the main purpose of this stylised phonological contour is to express imperfective (particularly progressive) readings.

7.1.1.1 *Aspectual prosodic lengthening: Form*

Aspectual lengthening occurs on the final syllable of the clause (generally the final syllable of the verb or VP). This is generally the final syllable of the verb (often the PST TAM suffix, as in example (7.32)), however if the clause involves other modifiers, arguments and constituents, it will be the final syllable of whatever part of speech that occurs in final position of the clause, such as the clitic marked nominal in (7.33), the demonstrative in (7.34), the nominal in (7.35) or the aspectual particle in (7.36).

- 7.32) *biya yirrə-mərnda-mərndakə-lhəkə-nu::⁹⁴=wa*
 and.then REAL.1A-REDUP-many-go-PST.XTD=PL
 ‘And then we all continued to keep on going’ [source translation]
 (Leeding 1989: 499)
- 7.33) *nanga-lhuku-lhukwa-mərrkaju-wa*
 REAL.3M>3F-REDUP-tracks-follow-PST
dh-adhə-m-alhəka=lhangwiyu::=wa yingə-lhəkarrkə-lyəmadha-Ø
 3F-F-INALP-foot=PERL.XTD=PL 3F-tracks-disappear-USP
 ‘He kept following her tracks until they disappeared’ [source
 translation]
 (GL, A3374a Side2, a11.2 Search)
- 7.34) *na-lhəke-nə-ma=ka wurr-akənu::=wa, yandha+lhangwa*
 REAL.3A-go-PST=MUT=EMPH 3A-that.XTD=PL until
narr-akburranga-Ø ebina angalya Kenina
 REAL.3A-reach-USP NEUT.this NEUT.place place.name
 ‘They went on and on, until they reached Canaan’
 (Bible Society in Australia 1992: 187)
- 7.35) *num-angkədhəkarrə-na ngalh-aja m-akəna mijiyangu::=wa*
 REAL.VEG-run-PST VEG.PRO-CofR VEG-that VEG.boat.XTD=PL
 ‘The ship went on and on’
 (Bible Society in Australia 1992: 440)
- 7.36) *nu-war.du-war.da-nga ngawu::=wa*
 REAL.3M-REDUP-work-PST continue.XTD=PL
 ‘He kept on working’
 (Bible Society in Australia 1992: 233)

The lengthened syllable sustains a constant high tone, and is generally followed by an immediate fall in intonation. Often this sharp intonational drop occurs with the clitic =*wa*, a prosodic segment that occurs only in this environment, as the POST-LENGTHENED falling

⁹⁴ Prosodic lengthening is indicated in examples by three colons ‘:::’.

intonational segment. Leeding (1989: 498) speculates that this clitic could be a shortening of the continuative particle *ngəwa*. She claims that the POST-LENGTHENED clitic =*wa* does not co-occur with the continuative particle *ngəwa*, however as example (7.36) demonstrates, the two can indeed co-occur. In justifying this analysis of =*wa* as a shortening of *ngəwa*, Leeding (1989: 498) mentions that literate Anindilyakwa speakers would sometimes hyphenate the particle *ngəwa* to the verb, ‘corresponding with the orthographical use of hyphenation preceding inflectional suffixes’, thus suggesting a shared perception of the =*wa* clitic and *ngəwa* particle by Anindilyakwa speakers. A better understanding of the etymology of the =*wa* POST LENGTHENING clitic, and possible historical connections with the particle *ngəwa* are left for further examination by future research.

Aspectual prosodic lengthening occurs frequently with reduplicated verbal stems (as in 7.37). In fact, surveying instances of verbal predicates taking (aspectual) prosodic lengthening in the corpus (n=80), 78% involved a reduplicated stem. See for §7.1 for discussion of reduplication.

- 7.37) *nen-alhə-lhəke-nu:::=wa*
 REAL.3M.DU-REDUP-go-PST.XTD=PL
 ‘They kept on going’ [source translation]
 (GL, A3369a Side1, a3.7 Nimimba-langwa akwa nenikuwenikba-langwa ‘The blind man’)

7.1.1.2 Aspectual prosodic lengthening: Semantics

Prosodic lengthening as an Aktionsart/event structure modifier has conventionalised selectional restrictions, requiring an atelic predicate, where the inner stages of the situation is focused upon, emphasising the progression of the situation. This is similar to what has been reported for some other Australian languages, such as Iwaidja, where prosodic lengthening is also restricted to atelic predicates (Caudal & Mailhammer 2016: 12).

However, there has been just one telic predicate identified that can occur with prosodic lengthening; *-lhawurradhə-* ‘return’ (7.38). In such a case, as with atelic predicates, the lengthening indicates that the development of the event was extended in time. Interestingly, as mentioned in §7.1, *-lhawurradhə-* ‘return’ is also the only telic predicate that has been identified occurring as an aspectual device with verbal reduplication.

- 7.38) *na-lhawurradhə-nu:::=wa*
 REAL.NEUT-return-PST.XTD=PL
 ‘It came back’
 (GL, A3369a Side 1 a3.4, Bujikeda ‘Mother cat’)

While prosodic lengthening can be observed as similar to verbal reduplication with respect to its selectional restrictions, and aspectual semantics, reduplication can occur with past, present and future temporal anchoring of the situation, and with verbs inflected with REALIS, IRREALIS and DEONTIC prenominal paradigms, and PST and NPST TAM suffix paradigms. Aspectual prosodic lengthening, however, occurs exclusively with past temporal situations. The vast majority of verbal predicates displaying prosodic lengthening are inflected with REALIS-V-PAST marking, although they can also take REALIS-V-Ø inflectional marking, in which an iterative reading is expressed (as in 7.39).

- 7.39) *yingi-rukwulyaka-Ø* *ying-angkarru-Ø:::=wa,*
 REAL.3F-go.around-Ø REAL.3F-fly-Ø.XTD=PL
ying-arjiyi-nga *akuwabijina* *awurukwa*
 REAL.3F-stand-CofS beside NEUT.billabong
 ‘She flew down and circled round and round (until) she was standing at the edge of the billabong’
 (GL, A3369a Side1, a3.7 Nimimba-langwa akwa nenikuwenikba-langwa ‘The blind man’)

Aspectual prosodic lengthening occurs most frequently with verbs of motion, which is also reflected by speaker perceptions, as demonstrated in (7.40).

- 7.40) ‘[you] only [use prosodic lengthening] if you're walking or hunting... [it's for] travelling, or moving, yeah’
 (ST, JRB1-037-01, 00.07.09-00.07.55)

While verbs of motion occur most frequently with prosodic lengthening, this is particularly so with the verb *-lhəke-* ‘go’. In fact, 50% of (aspectual) prosodic lengthening of verbal predicates surveyed in the narrative corpora occur with *-lhəke-* ‘go’ (as in example 7.41).

- 7.41) *n-angkarrə-nə-mərru::=wa,* *nu-kuwabijanga-Ø* *ayika=manja*
 REAL.3M-run-PST=MUT.XTD=PL REAL.3M-jump-USP NEUT.tree=LOC
 ‘He kept on running (until) he jumped behind a tree’ [source translation]
 (GL, A3369a Side1, a3.3 Kwurrirda Kwurrirda)

There is a perception of speakers that prosodic lengthening is particularly salient in narratives, used as part of the repertoire of a good story teller, as reflected in (7.42).

- 7.42) ‘a good story teller would use that [lengthening]... [you use lengthening] only if you're telling a story around the camp fire, or telling story to family member. You might want to tell about your journey on the day’
 (ST, JRB1-037-01, 00.07.48-00.09.15)

7.1.2 *Prosodic lengthening as a discourse-emphatic marker*

In addition to final syllables prolongation, prosodic lengthening can occur on any part of speech, not restricted to the final syllable (on the initial, second, penultimate or final syllable), in order to emphasise/focus the topic.

7.1.2.1 *Discourse-emphatic prosodic lengthening: Form*

Unlike prosodic lengthening used as an aspectual device (which is restricted to clause-final position), as a discourse marker prosodic lengthening can occur with any part of speech. Also unlike aspectual prosodic lengthening, which must occur on the penultimate syllable, as a discourse marker it can occur in initial, second, penultimate or ultimate position. Aspectual prosodic lengthening is generally followed by a sharp fall in intonation, however with lengthening as a discourse marking device, there need not be a fall in intonation following the lengthened segment, although tone is generally high on the lengthened syllable and falls gradually throughout the rest of the word (Stokes 1982: 148). While aspectual lengthening always involves a lengthened vowel, for discourse-emphatic prosodic lengthening, laterals, rhotics and nasals (as well as vowels, i.e. continuants) can be lengthened. Compare example (7.43) in which the vowel is lengthened, to (7.44) where the rhotic is lengthened.

7.43) *a::rakba+wiya*
 XTD.long.ago
 ‘very long ago’ [source translation]
 (Stokes 1982: 148)

7.44) *ar::akba+wiya*
 XTD.long.ago
 ‘very long ago’ [source translation]
 (Stokes 1982: 148)

7.1.2.2 Discourse-emphatic prosodic lengthening: Semantics

In various Australian languages prosodic lengthening has been described as ‘dramatising’ the nature of an event (Bishop 2002: 82 (Bininj Kunwok); Simard 2013 (Jaminjung)). The discourse-emphatic use of prosodic lengthening in Anindilyakwa is reminiscent of this, where it is used to emphasise the intensity of the event when occurring with verbs, and express intensification/quantity/plurality with other parts of speech (nominals, adverbials, particles).

While aspectual prosodic lengthening requires an atelic predicate, there is no such restriction on its use as a discourse-emphatic device, where lengthening is able to occur with any predicate type, including telic, atomic events, as demonstrated in (7.45) and (7.46). While example (7.45) expresses an iterative reading, this is not by virtue of the lengthening, but rather expressed through the adjoining reduplicated verb *-yamə-* ‘do’ and the aspectual particle *ngəwa*. Rather, the prosodic lengthening here is used to emphasise the intensity of the stabbing action. (7.46) demonstrates that discourse-emphatic lengthening can occur with telic, atomic predicates with no iterative reading, where the lengthening here, as with (7.45) is used to emphasise the intensity of the event. Example (7.46) also displays that prosodic lengthening as a discourse marking device can occur with present and future (as well as past) temporal reference (unlike aspectual lengthening, which is restricted to past temporal contexts), and with non-REALIS prefixal paradigms (e.g. the DEONTIC in this case).

7.45)	<i>ni-yeng-jem-Ø</i>	<i>ngəwa</i>	<i>n-a::dhər̄ra-ngə=m</i>
	REAL.3M-REDUP-do-PST	continue	REAL.NEUT-XTD.pierce-PST=MUT
	<i>akən=dha</i>	<i>jurra</i>	
	NEUT.that=TRM	NEUT.paper	

‘He kept on stabbing the paper’ [author translation]
(ST, JRB1-037-01, 00:24:12-00:24:18)

- 7.46) *wun-ardhirre-na:::=wu*
DEON.2>3M-kill-NPST.XTD=EXCL⁹⁵
‘Kill him!’
(Bible Society in Australia: 870)

Similarly, this use of prosodic lengthening as a discourse-emphatic device can occur with nominals ((7.47) and (7.48)), adverbials (7.49) and particles (7.50), as a means of expressing intensification/quantity/plurality. With nouns, including proper nouns as in (7.47), prosodic lengthening is used as a stylistic device to focus the referent of the discourse. For adjectival nominals (7.48) and adverbials (7.49) it is used to augment or intensify the degree or scale of the properties expressed. Similarly, prosodic lengthening occurs frequently with the clause combining particle *biya* ‘and then’ (7.50), where lengthening extends the durational quality of the particle (i.e. ‘and then [after a long period of time]’).

- 7.47) *Aburiyama:::=yi!*
Abraham.XTD=EXCL
Abraham! [source translation]
(Bible Society in Australia: 161)

⁹⁵ Often when prosodic lengthening occurs as a discourse-emphatic device in syllable-final position it is accompanied by an EXCLAMATORY clitic =*yi*, =*wu*, as in the following two examples:

nəng-ena:::=wu
1-this.XTD=EXCL
‘Here I am!’ [source translation]
(Bible Society in Australia: 158)

bungkawa:::=yi
3M.boss.XTD=EXCL
‘Master!’ [source translation]
(Bible Society in Australia: 770)

These EXCLAMATORY clitics are interesting in that they are one of the few instances where the phrase-final vowel is not /a/. EXCLAMATORY clitics, as well as particles such as *yawu* ‘yes’, *wayi* ‘hey, you!’, *jeyi* ‘go away!’ and *kardi* ‘good grief, true?’ are the only parts of speech that appear to occur phrase-finally with a sound other than /a/ (i.e. direct expressions of the speaker’s feelings/state of mind).

- 7.48) *a::yukwujiya*
 XTD.small
 ‘very small’ [source translation]
 (Stokes 1982: 148)
- 7.49) *am::baki+lhangwa*
 XTD.slow
 ‘very slow’ [source translation]
 (Stokes 1982: 148)
- 7.50) *bi::ya*
 TD.then
 ‘and then after a while’ [source translation]
 (Stokes 1982: 148)

7.3 Aspectual particles and adjectives involved in imperfective readings

This final section of the chapter considers one further key device with which imperfective aspectual readings can be expressed: through the interaction of the predicate with aspectual particles and adjectival nominals.

7.3.1 *Aspectual particles*

Particles are forms that don’t take any affixes, derivational or inflectional. They are similar to interjections in that they are morphologically invariable, however they differ in that particles are syntactically integrated, occurring as part of a full clause, while interjections are not (Mushin 2012: 234). Particles exhibit a range of grammatical functions, of which I categorise broadly into two sub-categories; modifying particles and clause-combining particles. Modifying particles are those particles that have adverbial-like clausal modification properties, and include aspectual, modal and negative particles⁹⁶. In this section I discuss aspectual particles, and in particular the imperfective aspectual particle *ngəwa*.

⁹⁶ There is not a clear distinction between what I classify modifying particles vs. adverbials. The distinction I make considers both syntactic and semantic motivations, where in general modifying particles take no inflectional or derivational affixation, nor can they attach to clitics (aside from discourse-pragmatic clitics), while adverbials can attach to case/spatio-temporal/modal clitics. There are some exceptions which, for semantic reasons, are

7.3.1.1 *ngəwa* ‘continue’ particle

The *ngəwa* ‘continue’ particle can occur with nuclear-level (with scope over the VP) and peripheral-level aspectual modification (with scope over the clause).

Nuclear-level aspectual modification involving *ngəwa* occurs when the particle is located at the periphery of the verb phrase (either before or after the verb), and scopes over the verb. Aspectual modification involving *ngəwa* requires an atelic predicate, in which the particle forces an imperfective aspectual reading (often translated in English translations as ‘keep on’/’continue’/’carry on’). This includes general imperfective aspectual readings (as in (7.51) and (7.52)), and habitual aspectual readings (as in (7.53)).

- 7.51) *en-eja n-akəna nabərri-dhikba ngəwa*
 3M.PST-CofR 3M-that 3M.son-KIN.3F **continue**
n-embirrari-nə=ma y-akinu=wa
 REAL.3M-wait-PST=MUT MASC-that=ALL
kənu-walyuwu-nə=mərru=wa y-akəna yimarndakuwaba.
 IRR.MASC-be.cooked-PST=DEP=ALL MASC-that MASC.blue.tonged.lizard
n-akəna nu-mebə-mebi-nə=mərra ngəwa.
 3M-that REAL.3M-REDUP-sing-PST=MUT **continue**
 “*Kwurrirda Kwurrirda*” *ni-yamin-jami-na ngəwa=dha*
 Kwurrirda.Kwurrirda REAL.3M-REDUP-say-NPST continue=TRM
 ‘Her son **kept on** waiting until it was cooked. He **kept on and on** singing,
 “*Kwurrirda Kwurrirda*”
 (GL, A3369a Side1, a3.3 Kwurrirda Kwurrirda)

- 7.52) *kə-lhəka-ja=mərra ngəwa nəngk-eningaba nəngk-akəna*
 IRR.2-go-NPST=MUT **continue** 2-good 2-that
skul=uwa, k-arrikarre-na=ma nungkuwa
 NEUT.school=ALL IRR.2-write-NPST=MUT 2.PRO
 ‘You should keep going to school like a good girl, you should learn to write’
 (JW, A3369a Side1, a3.2 ‘Telling a child to go to school’)

classified as either modifying particles or adverbials. See Appendix B for listings of particles and adverbials, and a brief discussion.

- 7.53) *nuw-engk-ingkirrike-nə=mə=ka* *wurru-mərndak-akəna*
 REAL.3A-REDUP-think-PST=MUT=EMPH 3A-many-that
awurru-wurrariya=wə=ka ngəwa
 NEUT.REDUP-bad=ALL=EMPH **continue**
 ‘They kept on thinking about evil **all the time**’
 (Bible Society in Australia 1992: 36)

In cases in which *ngəwa* occurs with an atomic telic predicate, this coerces an iterative reading, as in examples (7.54) and (7.55).

- 7.54) *ni-yem-jem-Ø* *ngəw* *n-adhərri-ng=m*
 REAL.3M-REDUP-do-PST **continue** REAL.3M>NEUT-pierce-PST=MUT
akən jurr=dha
 NEUT.that NEUT.paper=TRM
 ‘He kept on stabbing the paper bag’ [author translation]
 (ST, JRB1-037-01, 00:23:45-00:23:49)

- 7.55) *n-aka* *nenəngkwarba* *n-adhakba-jangu-Ø=m*
 3M-this 3M.man REAL.3M-knock(?)-REFL-USP=MUT
door=man ngəwa n-ərribərrib=dha
 NEUT.door=LOC **continue** 3M-keep.on=TRM
 ‘The man kept on knocking on the door’ [author translation]
 (ST, JRB1-037-02, 00:18:25-00:18:32)

ngəwa can occur with overt PAST tense marking (e.g. 7.51), and overt NON-PAST marking with present and future (e.g. 7.52) temporal reference. It occurs generally with REALIS-V-PST/NPST or IRREALIS-V-PST/NPST inflectional marking, although can (infrequently) occur with REALIS/IRREALIS-V-Ø inflectional marking, where it results only in iterative or repeated readings.

ngəwa frequently co-occurs with reduplicated verb stems (as in (7.51) and (7.53)), prosodic lengthening, and with the *ərribərriba* ‘keep on’ adjective.

ngəwa can similarly occur as a nuclear-level aspectual modifier with verbless clauses, where it is involved in the same aspectual modification (expressing imperfective aspectual readings) as with verbal clauses. An example is displayed in (7.56).

- 7.56) *win-ambilyuma=lhangwa* **ngəwa** *arrawa* *akwungwu=manja*
 3M.DU-two=ABL **continue** inside NEUT.water=LOC
 ‘The two men continued to be underneath the water’
 (Leeding 1989: 498)

Amongst these imperfective aspectual readings, *ngəwa* often occurs in contexts in which a situation holds up to and including the present time, and where change is not expected or required (Stokes 1982: 87) (translated as ‘still’ in English translations), as demonstrated in (7.57) and (7.58).

- 7.57) *ambaka* *n-aka* *yakwujina* *makarda=manja* **ngəwa**⁹⁷
 later 3M-this here VEG.sea=LOC **continue**
one side *m-akəna* *makarda=dha,* *m-akəna=ka*
 one.side VEG-that VEG.sea=TRM VEG-that=EMPH
m-əkwardukwurde=ka *makarda*
 VEG-taboo=EMPH VEG.sea
 ‘Still that boy was there, on one side of the sea and the sea was a taboo one’
 (BBB A3369b Side1, a4.3 Ngayawuma-langwa)

- 7.58) *mama=ka* *nəngk-akəna* *k-arrkwuje-yi-na=ma* *əmba*
 never.mind=EMPH 2-that IRR.2-suffer-RECIP-NPST=MUT but
kəni-ngiyendhe-na=ma **ngəwa** *nəngk-akəna* *nenəngkwarba*
 IRR.2>3M-want-NPST=MUT **continue** 2-that 3M.man
nungkwa=lhangwa
 2.PRO=POSS
 ‘Even though you will suffer, you will still want your husband’
 (Bible Society in Australia 1992: 19)

In negative polarity contexts, *ngəwa* indicates that the situation has not yet occurred at the topic time (although there is an expectation that it should have occurred, or will occur imminently), as in example (7.59).

⁹⁷ The use of *ngəwa* with such readings implies a positive connotation. In order to express a similar meaning but with a negative connotation (e.g. the coffee was still (too) hot (which meant I couldn’t drink it)) the adverbial *ambaka* is used (Stokes 1982: 87).

- 7.59) *n-akəna nara ngəwa kəni-yedha-nga*
 3M-that NEG **continue** IRR.3M-arrive-PST
 ‘He shouldn’t have arrived yet’ [author translation; prompt: ‘he shouldn’t have arrived yet’]
 (JL, JRB1-044-01, 00:20:03-00:20:08)

At a peripheral-level, *ngəwa* scopes over the clause when occurring in clause final position, and indicates termination or completion of the situation⁹⁸ (often translated as ‘[that’s] enough’/ ‘that’s it’/ ‘[that’s] finished!’), as in example (7.60) where the speaker indicates that the addressee should ‘let the women go [and be done with it]’/‘let the women go [and be finished]’.

- 7.60) “*a.a! nganyangwa wurr-akəna wurrə-dharrəngka əmba*
 disagreement 1.PRO.POSS 3A-that 3A-woman but
yu-kwa-Ø wurra-lharrki-ya ngəwa” ni-yama-Ø
 DEON.2>1-give-USP DEON.2>3A-let.go-POT**continue** REAL.3M-say-PST
 “‘No, no! They are my women give them to me, you let them go” said the man’
 (AA, A3369a Side2, a3.11 Yingarna-langwa ‘Story about a snake’)

In this context, *ngəwa* occurs frequently with demonstratives to signal the finality or completion of the clause (e.g. ‘that’s it’/ ‘that’s all’/ ‘this is all’/ ‘this is over’), as in examples (7.61) and (7.62).

- 7.61) “*ena ngəwa” ni-yama-Ø, “mena*
 NEUT.this **continue** REAL.3M-say-PST because
nəngi-jungwa-Ø arakba akungwa!” ni-yama-Ø
 REAL.1-die-PST COMPL.ACT NEUT.water REAL.3M-say-PST
 “‘This will do’ he said, “because I’m dying for water now!””
 (AA, A3369a Side2, a3.11 Yingarna-langwa ‘Story about a snake’)

⁹⁸ Leeding (1989: 499) notes that this this clause-final use of *ngəwa* is quite contradictory to the nuclear ‘extended duration’ use, but suggests that it is in fact not contradictory as it indicates only a ‘temporary cessation of an activity which is likely to be resumed at some future date’. I suggest however this is not so, given that it is often used as a final and ultimate cessation for events in which the speaker does not expect to resume or reoccur.

- 7.62) *akəna=ba* **ngəwa**
 NEUT.this=EMPH **continue**
 ‘That’s all’
 (GL, A3369a Side2, a3.8 ‘Crocodile and blue-tongued lizard’, 00.12.43)

Similarly, it occurs with the adverbial *arakba*, indicating ‘enough now!’, often used as a command to cease an event (i.e. ‘that’s enough!’/ ‘that’s it!’) (Stokes 1982: 89), as in example (7.63).

- 7.63) **‘ngəwa** *arakba!* *arakba* *w-al+ambarri-ya* *kembirra!*
continue COMPL.ACT COMPL.ACT DEON.2A-?+sit-NPST then
ni-yama-Ø
 REAL.3M-say-PST
 ‘That’s all now! You may all sit down!’ he said
 (BBB A3369b Side1, a4.3 Ngayawuma-langwa)

ngəwa can occur in isolation as a (polite) negative response to questions enquiring whether the interlocuter would like something, effectively indicating ‘[I’m] enough’ (i.e. ‘I’m ok, I don’t need anything else) (Stokes (1982: 89). Similarly *ngəwa* can also be used (often in addition to the demonstrative *nəngena* (i.e. *nəngena ngəwa* ‘I[‘m] enough’)) in response to questions about one’s wellbeing (e.g. ‘are you ok?’ ‘are you alright?’) (Stokes 1982: 89).

In combination with clause-combining particles (*akwa* ‘and’; *biya* ‘and then’), it expresses the notion of ‘also/additionally’, as in examples (7.64) and (7.65).

- 7.64) *akəna* *kembirra* *narri-yarrk-abulhi-ju-wa=ma*
 NEUT.this then REAL.3A-throat-mix-CAUS-PST=MUT
ngarningka *ne-yengbi-nə=ma* *abərri=lhangwa=mərri*
 again REAL.3A-speak-PST=MUT PRO.3A=POSS=INST
ayakwa *akwa ngəwa* *Engkila.Jakijina=mərri*
 NEUT.language and **continue** NEUT.Anglo.Saxon=INST
ayakwa
 NEUT.language
 ‘Then they mixed their language and the Anglo-Saxon language’
 (Bible Society in Australia 1992: iii)

- 7.65) *ngarningka* *nə-lbu-lburra-nga* **ngəwa** *biya,*
 again REAL.3M-REDUP-split-PST **continue** and.then
amangbalha *n-akuma-Ø*
 NEUT.five REAL.3M>NEUT-put-USP
 Again he (chopped down a tree and) split it and made another five (spear shafts)
 (AA, A3369a Side2, a3.11 Yingarna-langwa ‘Story about a snake’)

7.3.1.2 *ngarningka* ‘again, also’

ngarningka is a particle (which doesn’t take case/spatio-temporal/modal clitics), which can modify the verb/VP or NP. Modifying the verb/VP, *ngarningka* indicates repetition of an event, which has previously been completed, interrupted or terminated, as in examples (7.66) and (7.67).

- 7.66) *akena ngarningka* *yirri-yakwerrbuka-Ø* *ak-akburrange-nə=m*
 then **again** REAL.1A-think-USP IRR.12A-meet-PST=MUT
ngarningka *alyarrungwalya*
again night
 ‘We decided to meet there again at night’ [author translation; prompt: ‘We decided we would meet there at nightfall’]
 (JL, JRB1-044-01, 00:09:56-00:10:05)

- 7.67) *n-akəna* *niyukwujiya* *na-rrak+ajey=ma*
 3M-that 3M.boy REAL.3M-forehead+be.upright.PST=MUT
akwa *n-abalkayiku-nə=ma* **ngarningka**
 and REAL.3M-stand-PST=MUT **again**
ne-rrak+ajey=ma
 REAL.3M-forehead+be.upright.PST=MUT
 ‘The boy sat, then stood, then sat down again’
 (JL, fieldnotes, 2016-06-22)

Modifying an NP, *ngarningka* indicates the pre-existence of another of the referent in question (i.e. refers to an additional referent, the same type as that already mentioned), as in example (7.68).

- 7.68) *en-eja* *n-akəna* *Aburiyama* *nanga-wilyaka-Ø=ma*
 3M.PRO-COR 3M-that 3M.Abraham REAL.3M>3F-take-PST=MUT
dh-uwilyaba ***ngarningka*** *dhadhingiy-enikba*
 3F-one **again** 3F.wife-3M.KIN
 ‘Abraham had another wife whose name was Keturah.’
 (Bible Society in Australia 1992: 189)

7.3.2 *ərribərriba* ‘keep on’ adjective

Adjectival nominals are morpho-syntactically similar to nouns, in that they can be used predicatively, and take the same inflectional and derivational prefixes and number suffixes/case clitics, but differ in that noun class prefixes (which are frozen to the stem in nouns, and cannot be omitted) are flexible with adjectives, and agree with the noun they modify, or the subject (when used predicatively) (van Egmond 2012: 91). Some adjectival nominals are used in expressing aspectuo-temporal and modal information, such as cognition adjectival predicates (discussed in §3.2.2.4), and the *ərribərriba* ‘keep on’ adjective discussed in this section.

ərribərriba occurs with atelic predicates, expressing an imperfective aspectual reading, as in examples (7.69) – (7.72). While similar to the *ngəwa* aspectual particle, *ərribərriba* ‘keep on’ occurs only with general (continuous, on-going) imperfective readings (while *ngəwa* can occur with both general (continuous) and habitual imperfective readings).

- 7.69) ***wurr-ibərriba*** *na-jungu-nə=m* *marrnga*
 COLL-keep.on REAL.COLL-be.tired-PST=MUT VEG.sleep
 ‘The baby kept sleeping [all day]’ [author translation; propt: ‘if the baby slept all day, ‘til the the sun went down’]
 (ST, JRB1-037-01, 00:11:17-00:11:21)

- 7.70) ***n-ərribərriba*** *nə-mebi-nə=mərri* *emeba*
 3M-keep.on REAL.3M-sing-PST=MUT NEUT.song
 ‘He kept on singing [all day long]’ [author translation; prompt: ‘if he did that

- 7.73) *ne-yamin-jama-Ø=ma* *wurr-ibərriba* *ngəwa*
 REAL.3A>-REDUP-do-PST=MUT 3A-keep.on continue
wurr-akinu:::=wa
 3A-that.XTD=PL
 ‘They kept on doing all these things all the time’ [source translation]
 (Bible Society in Australia 1992: 777)

7.4 Summary

Given that Anindilyakwa does not demonstrate a strong inflectional perfective vs. imperfective aspectual viewpoint opposition, other non-inflectional aspectual devices are regularly employed to effectively convey aspectual nuances. In particular, this can involve verbal reduplication, prosodic lengthening, and the interaction of aspectual particles and adjectives with Aktionsart and inflectional tense/aspect marking.

Reduplication is a derivational process that can occur in both verbs and nominals in Anindilyakwa. With nominals, reduplication is primarily used to express intensification/quantity/plurality, while with verbs (in addition to this) it can also act as an Aktionsart/event description modifier. As an Aktionsart/stage-aspect modifier, reduplication occurs with atelic verbs centring on the ‘core’ inner stages of atelic situations, and with telic reduplicated verbs it coerces a pluractional reading.

There are two kinds of prosodic lengthening in Anindilyakwa: i) lengthening as an aspectual device, restricted to the VP, and further restricted to atelic predicates, which occurs on the final syllable of the verb or VP; and ii) lengthening as a discourse marking device, emphasising the topic, which can occur on any part of speech, and is not restricted to the final syllable.

Prosodic lengthening as an Aktionsart/event structure modifier has conventionalised restrictions, requiring an atelic predicate, where the inner stages of the situation is focused upon, emphasising the progression of the situation. Aspectual prosodic lengthening occurs most frequently with verbs of motion.

Unlike prosodic lengthening used as an aspectual device (which is restricted to the VP), as a discourse marker prosodic lengthening can occur with any part of speech. Also unlike aspectual prosodic lengthening, which much occur on the penultimate syllable, as a discourse marker it can occur in initial, second, penultimate or ultimate position.

Aspectual particles and adjectives can be also involved in aspectual modification, particularly the particles *ngəwa* ‘continue’ and *ngarningka* ‘again, also’, and the adjective *əribərriba* ‘keep on’.

ngəwa ‘continue’ can occur with nuclear-level (with scope over the VP) and peripheral-level aspectual modification (with scope over the clause). Nuclear-level aspectual modification involving *ngəwa* occurs when the particle is located at the periphery of the verb phrase (either before or after the verb), and scopes over the verb. Here, this aspectual modification involving *ngəwa* requires an atelic predicate, in which the particle forces an imperfective aspectual reading. At a peripheral-level, *ngəwa* scopes over the clause when occurring in clause final position, and indicates termination or completion of the situation.

ngarningka is a particle that can modify the VP or NP. Modifying the VP, *ngarningka* indicates repetition of an event (which has previously been completed, interrupted or terminated), while modifying the NP it indicates the pre-existence of another of the referent in question (i.e. refers to an additional referent, the same type as that already mentioned).

əribərriba occurs with atelic predicates, expressing an imperfective aspectual reading. While similar in some respects to *ngəwa*, *əribərriba* ‘keep on’ occurs only with general (continuous, on-going) imperfective readings (in contrast to *ngəwa*, which can occur with both general (continuous) and habitual imperfective readings).

Chapter 8

Clause types, clitic marking and aspectuo-temporal relations

In addition to the inflectional tense-aspect system, clitics can attach to the verbal complex in Anindilyakwa, in order to express aspectuo-temporal properties. This is particularly notable in complex clausal constructions, where clitics are involved in expressing different temporal relations between dependent and matrix clauses.

This chapter focuses on two sub-categories of clitics in Anindilyakwa, involved in aspectuo-temporal expression: case clitics and spatio-temporal clitics. A key temporal role these clitics play is indicating temporal or logical relations between main and dependent clauses. Additionally, spatio-temporal clitics can attach to fully inflected finite verbs in independent clauses, modifying aspectuo-temporal properties of the situation. This is examined, particularly considering the fairly aspectually underspecified inflectional system discussed in Chapter 6, and the non-inflectional aspectual devices utilised in marking aspectual readings, discussed in Chapter 7. Finally, case and spatio-temporal clitics occur frequently attached to temporal adverbials and demonstratives, expressing temporal properties.

§8.1 provides a brief overview of the category of clitics in Anindilyakwa, before aspectuo-temporal properties (particularly concerned with clausal temporal relations) of ‘primary’ case clitics and spatio-temporal clitics are examined in §8.2 and §8.3 respectively.

8.1 Overview of Anindilyakwa clitics

Clitics are prosodically dependent on a preceding word and never occur utterance-initially. In Anindilyakwa they can contribute to clausal meaning, or perform discourse functions. Taking into account syntactic and semantic motivations, I subcategorise clitics in Anindilyakwa into four broad categories i) (spatial) case clitics; ii) spatio-temporal clitics; iii) modal clitics; and iv) discourse-structural clitics. These are listed in Table 8.1, along with a description of their meanings, when attached to nominals.

Category	Clitic	Gloss	Semantic function
Case marking clitics	= <i>lhangwa</i>	ABLATIVE/ POSSESSIVE	indicates i) the source/origin of movement; ii) possession of the marked nominal; iii) purpose or intent; iv) cause; v) about/on the subject of/concerning
	= <i>wa</i>	ALLATIVE	indicates the goal of movement
	= <i>manja</i>	LOCATIVE	indicates a static location
	= <i>kba</i>	DENIZEN	indicates the habitat of an animal or species
	= <i>ma~mərɾa</i>	PROPRIETIVE/ PRIVATIVE/ COMITATIVE	indicates i) ownership or ‘having’; ii) lack or absence (‘not having’) (in combination with obligatory alienable possession prefix); iii) association (‘with’)
Spatio-temporal clitics	= <i>lhangwiya</i>	PERLATIVE	indicates movement along a path or through space
	= <i>wiya</i>	QUANTIFICATIONAL	indicates universal quantification
Modal clitics	= <i>yedha</i>	PURPOSIVE	indicates purpose, goal, intent
	= <i>maka</i>	EVITATIVE	indicates undesirability
	= <i>baba</i>	REASON	indicates cause or reason

Discourse-structural clitics	= <i>ba</i> , = <i>ka</i> , = <i>ma~mər̄ra</i> , = <i>dhangwa~lhangwa</i> , = <i>bena</i>	EMPHATIC	used for focus, intensification and emphasis
	= <i>dha</i>	TERMINATIVE	indicates the end of a discourse segment

Table 8.1 Anindilyakwa clitics

While clitics occur frequently with nominals, indicating the semantic roles listed in Table 8.1, they can also attach to other parts of speech, where (rather than expressing the (primarily) spatial roles when attached to nominals) they express temporal properties. In this capacity, clitics can attach to adverbials and demonstratives, as well as to fully inflected verbs.

Clitic marked verbs generally occur in dependent clauses (both relative and (t-complementising) subordinate clauses), however some spatio-temporal and modal clitics can also attach to fully inflected finite verbs in main clauses (expressing temporal or modal readings). Table 8.2 displays the clause types in which case, spatio-temporal and modal clitics can occur (and with respect to t-complementising adverbial subordinate clauses, the temporal or modal relation the clitic marked clause displays is also listed).

		Main Clause	Case marked relative clause	T-complementising adverbial subordinate clause
Case clitics	ABLATIVE = <i>lhangwa</i>	✓ ^a	✓ ^b	✓ ^c ‘after P’
	ALLATIVE = <i>wa</i>	×	✓ ^d	✓ ^d ‘before P, until P’
	LOCATIVE = <i>manja</i>	×	✓ ^d	✓ ^e ‘when P, if P’
	DENIZEN = <i>kba</i>	×	✓ ^d	✓ ^d ‘see whether P’
	PROPRIETIVE/PRIVATIVE/ COMITATIVE = <i>ma~mər̄ra</i>	×	✓ ^d	×
Spatio-temporal clitics	PERLATIVE = <i>lhangwiya</i>	✓	✓ ^b	✓ ^e ‘while P’
	QUANTIFICATIONAL = <i>wiya</i>	✓	✓ ^b	✓ ^e ‘while P’

Modal clitics	REASON = <i>baba</i>	×	×	✓ ^b ‘because of P’
	PURPOSIVE = <i>yedha</i>	✓	×	✓ ^e ‘in order to P’
	EVITATIVE = <i>maka</i>	✓	×	? ^e ‘lest P’

Table 8.2 Clitic usage in t-complementising subordinate clauses

- a) only occurs when =*hangwa* takes ‘about/on the subject of/concerning’ readings;
- b) occurs with obligatory =*ma*~ =*mər* marking⁹⁹;
- c) occurs with optional =*ma*~ =*mər* marking (although =*ma*~ =*mər* disallowed with intensive readings);
- d) occurs with obligatory =*mər* marking;
- e) =*ma*~ =*mər* marking disallowed;

This chapter is interested only in the case and spatio-temporal clitics listed in Tables 8.1 and 8.2, and the temporal relations with which these clitics are involved. Temporal relations involving ‘primary’ case clitics (ABLATIVE =*hangwa*, ALLATIVE =*wa*, LOCATIVE =*manja*, DENIZEN =*kba*) are discussed in §8.2, and involving spatio-temporal clitics (PERLATIVE =*hangwiya*, QUANTIFICATIONAL =*wiya*) in §8.3. Modal clitics, and their involvement in conditionals, intentionality, volitionality and apprehension, are discussed in Chapter 10. Discussion of discourse-structural clitics exceeds the scope of this thesis, however see Appendix B for a brief overview.

8.2 Temporal relations expressed though ‘primary’ case clitics

While ‘primary’ case clitics, when attached to nominals, are involved in spatial readings related to motion and static position, they can be involved in expressing temporal properties when attached to inflected finite verbs in dependent clauses, as well as when attached to adverbials and demonstratives. These temporal properties are examined in §8.2.1 and §8.2.2.

8.2.1 T-complementising subordinate clauses

As was overviewed in §3.3.2, ‘primary’ case clitics (i.e. ABLATIVE, ALLATIVE, LOCATIVE, DENIZEN) can attach to a fully inflecting finite verb in a dependent clause, indicating a temporal or logical relation between the main and subordinate clause. While spatio-temporal and

⁹⁹ =*ma* ~ =*mər* occurs as a dependent clause marker in relative and t-complementising adverbial subordinate clauses, although its occurrence and form depends upon the preceding clitic. See §2.5.3 for further discussion.

modal clitics can attach to verbs in both main and dependent clauses, case clitics¹⁰⁰ are restricted to dependent clauses, unable to occur independently¹⁰¹.

This use of case markers, termed ‘t-complementiser case’ in the Australianist literature (Dench & Evans 1988; Dixon 1980; Hale 1976) describes when a case marker occurs on a verb, and takes another clause as its complement; the case-marked clause acts as an adverbial subordinate clause, denoting a temporal, spatial or logical relation with the main clause (Dench and Evans 1988: 18).

As mentioned above, case clitics indicating goal and source of motion (ABLATIVE =*lhangwa* and ALLATIVE =*wa*), static location (LOCATIVE =*manja*), as well as the habitat of an animal or species (DENIZEN =*kba*), occur in dependent clauses with this t-complementising usage (but not in independent clauses), where they are co-opted to indicate either temporal anteriority, posteriority or simultaneity between the two clauses (ABLATIVE, ALLATIVE, LOCATIVE), or a logical relation connecting an indirect interrogative clause to the main clause (DENIZEN). These are discussed below.

ABLATIVE =*lhangwa*

As displayed in Table 8.1, =*lhangwa* is a multifunctional clitic, involved in various grammatical¹⁰², semantic and adnominal case usages. =*lhangwa* is primarily used to indicate the source or origin of movement, but can also be used to indicate purpose/intent, cause, possession, or to indicate the focus or topic of the discourse concerns the =*lhangwa* marked part of speech (e.g. ‘about X’, ‘on the subject of X’).

In accordance with this multifunctionality when attached to nominals, =*lhangwa* can similarly express a number of different readings when attached to an inflected verbal predicate, in a dependent clause.

¹⁰⁰ The exception to this is the ‘about/on the subject of/concerning’ reading of ABLATIVE =*lhangwa*, which can occur in independent clauses.

¹⁰¹ Leeding (1989: 493-4) claims that primary case clitics can also occur in independent clauses, providing several examples of this. However, these examples were rejected by speakers with whom I consulted. Speakers adjusted the examples in order to make them grammatical, altering the examples so that the case clitic marked clause related to an independent clause. van Egmond (2012: 229) remarked upon the potential inaccuracies of these particular data points of Leeding (1989).

¹⁰² Nominal morphology and clitic markers are only minimally involved in expressing information about core grammatical functions in Anindilyakwa, given that portmanteau prefixes are the central means of encoding this information. Thus, case marking is mainly employed at the clause level to express the kinds of relations expressed by prepositions in English (van Egmond 2012: 280). Accordingly, =*lhangwa* occurs mainly with semantic and adnominal case functions. Very peripherally, however, =*lhangwa* can be used to mark dative grammatical information, occurring, for example, on indirect objects of intransitive verbs. See van Egmond (2012, chapter 8) for more extensive discussion of case marking in Anindilyakwa.

Most frequently =*lhangwa* indicates temporal anteriority of the dependent clause in relation to the main clause (i.e. indicating that the event of the main clause occurs after the event of the clitic marked dependent clause), as in (8.1).

- 8.1) *ka-je-na=ma=lhangwa* *anhəŋga*
 IRR.3A>NEUT-eat-NPST=DEP=ABL NEUT.food
karri-ngiyendhe-na=ma *alhawudhawərɾa*
 IRR.3A>NEUT-want-NPST=MUT NEUT.story
 ‘After they have eaten they will want a story’
 (Stokes n.d.-b: 116)

As with marking on nominals, =*lhangwa* can also indicate cause when marked on the verb, as in examples (8.2) and (8.3).

- 8.2) *na-rrangkuwangi-na=ma* *ayarrka* *dhimirmara*
 REAL.NEUT-swell-NPST=MUT NEUT.hand FEM.sandfly
ng-anga-Ø=mərri=lhangwa
 REAL.FEM>1-bite-PST=DEP=ABL
 ‘My hand is swelling up because the sandflies bit me’ [source translation]
 (Stokes n.d.-b: 117)

- 8.3) *nuw-engkirre-nə=ma=lhangwa*
 REAL.COLL-hear-PST=DEP=ABL
 ‘... because they heard us’ [source translation]
 (Waddy n.d.-b: 29-30)

Additionally, =*lhangwa* can occur on inflected verbs to indicate that the =*lhangwa* marked verb is the main subject of a discourse (i.e. ‘about X’, ‘on the subject of X’, ‘concerning X’), as in (8.4).

- 8.4) *nəŋə-makə-na=ma* *Judie mənhəŋga*
 DEON.1>3F-tell-NPST=MUT Judie VEG.burrawang
kəŋə-ngurrkwa-ja=mə=lhangwa
 IRR.3F>NEUT(?)-collect-CAUS-NPST=DEP=ABL

‘Let me tell Judie about collecting burrawang’ [source translation]
 (Waddy n.d.-b: 23)

This use of =*lhangwa* attached to verbal predicates is the only instance in which it can occur in (apparently) independent clauses (whereas all other instances of =*lhangwa* (as with all other ‘primary’ case clitics) are restricted to dependent clauses). However, while this is so, in the absence of another clause, the =*lhangwa* marked clause inferentially refers to relevant contextual information. For instance, this construction is often used in the titles of stories, as in (8.5), where the =*lhangwa* marked clause ‘about the water drying up’ infers ‘[this is a story/ here is some information] about the water drying up’.

- 8.5) *na-mərndak-ingburingka-dhə-nə=mə=lhangwa* *angalya*
 REAL.NEUT-many-dry-INCH-PST=DEP=ABL NEUT.place
 ‘About the water drying up’ [source translation]
 (Bible Society in Australia 1992: 46)

ALLATIVE =wa

The ALLATIVE =*wa*, as with the ABLATIVE =*lhangwa*, demonstrates a spatial/temporal association, whereby =*wa* marked nominals take a local case meaning of ‘goal of movement’ (to, towards), while inflected verbs can take the =*wa* clitic with a t-complementising role, in which it indicates temporal posteriority of the dependent clause in relation to the main clause (i.e. temporally, the clitic marked clause occurs after the main clause), as displayed in examples (8.6) and (8.7).

- 8.6) *k-embirrari-na* *k-arəmə-dhə-na=mərrə=wa*
 IRR.2-wait-NPST IRR.2-big-INCH-NPST=DEP=ALL
 ‘Wait until you grow up’
 (Stokes n.d.-b: 117)

- 8.7) *nəngəm-arjirra-nga* *kaba* *kum-akuma-rnə=mərru=wa*
 REAL.1>VEG-wash-PST VEG.cup IRR.1>VEG-put-PST=DEP=ALL
milka
 VEG.milk

‘I washed the cup before I put milk in it’

(Stokes n.d.-b: 117)

LOCATIVE =manja

While the local case function of =*manja* when attached to nominals is to express static spatial location, when occurring attached to inflected verbs, =*manja* can take a t-complementising role. With temporally past marked verbs (i.e. with verbs taking REALIS-V-PST/Ø inflectional marking), simultaneity of the two situations is indicated, as in examples (8.8) and (8.9).

- 8.8) *arakbə+wiya warnmamalya narru-wilyaka-Ø=ma*
COMPL.ACT+QUANT 3A.people REAL.3A>NEUT-take-PST=MUT
*enungkwa nuw-abərangke-n=**manja** yinəngəngwangbə-mərriya*
NEUT.spear REAL.3A-search-PST=LOC MASC.animal-rest

‘Long time ago people took spears with them when they went hunting’

[author translation; prompt: ‘But in the old days, when people went hunting, they took spears with them’]

(JL, JRB1-045-01, 00.14.46-00.15.14)

- 8.9) *nginə-maka-Ø=ma nenyarrangka nungw-arrka*
REAL.3M>1-tell-PST=MUT 3M.respected.old.man 3M.father-KIN.1
*yirr-ambilyu=**manja** Yingakumanje=ka ena*
REAL.1A-stay.PST=LOC place.name=EMPH NEUT.this

alhawudhawərri

NEUT.story

‘My old father told me this story when we were staying at Yingakumanja’

(GL, A3369a Side1, a3.5 Dingarna-langwa akwa wurruwarda-langwa ‘Snake and a dog’)

=*manja*, when attached to verbs taking IRREALIS-V-NPST/Ø/PST/POT inflectional marking, expresses conditional or counterfactual readings, as in example (8.10). This is discussed in §10.1.

- 8.10) *kənə-ma-ngə=manja* *n-akəna* *kembirra* *kə-lhəke-nə=ma*
 IRR.2>3M-take-PST=LOC 3M-that then IRR.1-go-PST=MUT
nəng-ena
 3M-this
 ‘If you had taken him then I could have gone’
 (Stokes n.d.-b: 118)

DENIZEN =kba

The DENIZEN is an interesting clitic, which indicates the habitat of an animal or species, when attached to a nominal. When attached to a verb in a t-complementising case role, it indicates a logical relation between the dependent and main clause, whereby the dependent clause acts as an indirect interrogative (‘is it so, that X?’, ‘see whether X’, ‘see if X’), as displayed in examples (8.11), (8.12) and (8.13).

- 8.11) *Ø-andhi-ya* *angerriba* *ka-ngwurrkbalhu-Ø=mərrə=kba*
 DEON.2-look-POT to.over.there IRR.NEUT-open-USP=DEP=DENIZ
 ‘Look over there and see if the shop is open’
 (Stokes n.d.-b: 119)

- 8.12) *ngarring-ardi-ji-ya* *dh-angaba*
 DEON.12A>3F-call-CAUS-POT 3F-that.over.there
kingi-yamarrkə-na=mərrə=kba
 IRR.3F-do.what-NPST=DEP=DENIZ
 ‘Let’s call her and see what she will do’
 (Stokes n.d.-b: 119)

- 8.13) *nəng-embirrari-nə=ma* *kureya* *ka-lhəke-nə-mərrə=kba*
 REAL.1-wait-PST=MUT try IRR.3A-go-PST=DEP=DENIZ
wərrakwakwa
 3A.clan.name
 ‘I was trying to wait [to see] if the Wurrakwakwa would come’
 (Leeding 1989: 493)

Summary of ‘primary’ case clitics in t-complementising subordinate clauses

As demonstrated above, while the primary use of the ABLATIVE, ALLATIVE and LOCATIVE case markers are to indicate spatial reference (motion from and towards, as well as static location), particularly when attached to nominals, these case clitics can be ‘co-opted’ in order to express dependent tense properties, specifying temporal relations between two clauses, where the temporal interpretation of the dependent clause depends on the temporal reference of the main clause. The relationship between the spatial and temporal properties of these case marking clitics is displayed in Figure 8.1.

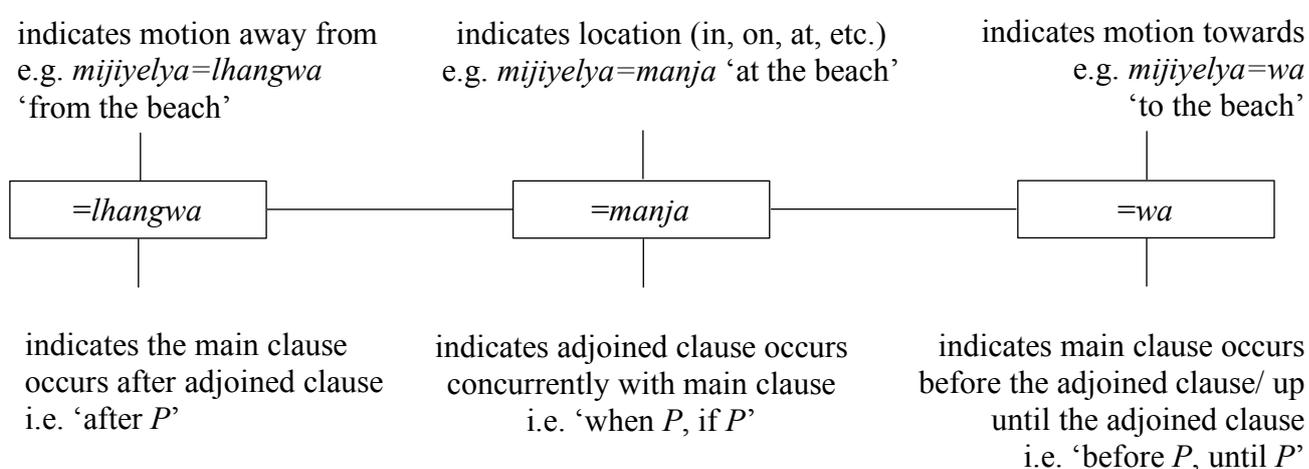


Figure 8.1 Spatial and temporal readings of case clitics

Parallels between spatial and temporal readings are very prevalent cross-linguistically, and the semantic extension from spatial to temporal readings in the case of these case clitics is fairly clear. As can be observed in Figure 8.1, while *=manja* expresses the static location of an argument (often when attached to a nominal), when occurring with an inflected verb it takes a temporal reading, inferring the co-occurrence of two situations (i.e. simultaneity of the two situations). A spatial reading of movement from (*=wa* ALLATIVE) or towards (*=lhangwa* ABLATIVE) an argument likewise entail temporal readings when attached to a verbal predicate, whereby the main clause occurs temporally after and before the clitic marked clause, respectively. For instance, in example (8.1) the verb *-je-* ‘eat’ takes the *=lhangwa* ABLATIVE clitic, which positions this clitic marked verb as occurring temporally preceding the main verb (*-ngayinde-* ‘want’), i.e. ‘after they will have eaten (literally ‘from the event of eating’), they will then want a story’, and in example (8.7) the verb *-akuma-* ‘put’ takes the *=wa* ALLATIVE clitic, which positions this clitic marked verb as occurring temporally following the main verb

(-*arjirra*- ‘wash’), i.e. ‘before I put the milk in the cup (literally ‘[going] towards [temporally] the event of putting the milk in’), I washed the cup’.

The semantic extension of the DENIZEN =*kba* from the spatial local case reading of ‘the habitat of an animal or species’ to expressing indirect interrogative readings, questioning the actualisation of a situation ((‘is it so, that X?’, ‘see whether X’, ‘see if X’, as displayed in examples (8.11) – (8.13)), is more difficult to explain, and is left to further investigation.

8.2.2 Temporal properties of case clitics attached to adverbials and demonstratives

Temporal properties of case clitics can similarly be observed when attached to adverbials and demonstratives¹⁰³. =*lhangwa* ABLATIVE and =*manja* LOCATIVE can occur with temporal adverbials and demonstratives, where =*lhangwa* marked adverbials/demonstratives generally indicate temporal progression from a deictically specified point in time (i.e. [temporally] from X), while =*manja* identifies a specific point in time. This is demonstrated in Tables 8.3 and 8.4.

	Adverbial	Adverbial + clitic
=<i>lhangwa</i>	<i>ambaka</i> ‘later’	<i>ambaka=lhangwa</i> ‘slowly, gently, carefully, softly’
	-	<i>arija+lhangwa</i> ‘last, later, afterwards’
	<i>adhuwaba</i> ‘today’	<i>adhuwaba=lhangwa</i> ‘from now on’
=<i>manja</i>		<i>adhuwaba=manja=ba</i> ‘today, for the first time’

Table 8.3 Case clitic marked temporal adverbials

	<i>akəna</i> ‘that’	<i>enena</i> ‘this’
=<i>lhangwa</i>	<i>akəna=lhangwa</i> ‘as a consequence of’	<i>enena=lhangwa</i> ‘from now on’
=<i>manja</i>	-	<i>enena=manja</i> ‘this week’

Table 8.4 Case clitic marked demonstratives

¹⁰³ Temporal relations expressed through demonstratives are discussed more generally in §8.4. Temporal adverbials are briefly overviewed in Appendix B.

8.3 Spatio-temporal clitics

Spatio-temporal clitics (QUANTIFICATIONAL =*wiya* and PERLATIVE =*hangwiya*) behave, in many respects, like the ‘primary’ case clitics examined in §8.2. Like case clitics, they can attach to nominals in order to express spatial or quantificational information regarding the argument, and also like case clitics they can attach to inflected finite verbs in dependent clauses, expressing a temporal relation with regard to the matrix clause. In addition to this however, and differing from the distribution of case clitics, spatio-temporal clitics can occur attached to inflected finite verbs in independent clauses, where they modify aspectuo-temporal properties of the situation. Spatio-temporal clitics occur with a much wider range of temporal adverbials and demonstratives (particularly the QUANTIFICATIONAL =*wiya*). The two spatio-temporal clitics, and their aspectuo-temporal properties are examined in §8.3.1 and §8.3.2.

8.3.1 QUANTIFICATIONAL =*wiya*

The =*wiya* QUANTIFICATIONAL clitic, when attached to a nominal argument, expresses quantificational properties, and attached to an adverbial, or a verbal/nominal predicate, expresses temporal properties. Both of these functions are related to the notion of quantity to some extent; quantity of the nominal in question for the quantificational reading (i.e. expressing universal quantification (the notion of ‘all’/’every’)), and ‘quantity’ with respect to the period of time (i.e. prolonged duration of time) for the temporal reading. Of primary concern of this chapter is the temporal functions of =*wiya* (discussed in §8.3.1.2), however I first briefly outline the quantificational use of =*wiya* with nominal arguments in §8.3.1.1.

=*wiya* has received various labels and analyses in previous descriptions. Leeding (1989, 1996) labels it both ‘time pergressive’ and ‘associative’, suggesting it indicates progression through space as well as closeness in proximity, or ‘next to’; Waddy (1997: 15) labels it ‘distributive’ where it can indicate notions of ‘everywhere’ and ‘all’, and van Egmond (2012: 301) labels it ‘pergressive’, but that the meaning ‘is difficult to capture’. Of this previous work, my analysis aligns most with Waddy’s (1997) label and description; discussed in §§8.3.1.1-8.3.1.2.

8.3.1.1 Quantificational properties

The QUANTIFICATIONAL clitic =*wiya* is used to express universal quantification (i.e. expressing what in English can be translated as ‘all’/’every’), occurring with nominal arguments of a

predicate. With count nominals, the clitic is generally used to express indefinite sets greater than two, and refer to the entirety of the set (as in example 8.14). It can be used to express the collective universal quantification of a set, as in example (8.15a), in which *duwalyu=wiya* ‘FEM.curlew=QUANT’ highlights that the set of birds previously mentioned are all curlews; and it can be used to emphasise the distinction between one set from another (i.e. to the exclusion of another set), as in (8.15b), where *warningkwarba=wiya* ‘3A.man=QUANT’ is emphasising that the set referred to consists of all men (to the exclusion of women). Thus, depending upon the context, (8.15c) could refer to an entire set of unripe wild plums, or a set of unripe wild plums, which is part of a larger collection of wild plums. The clitic =*wiya* is sometimes translated using the English ‘only’, as in example (8.16), where (again) the collective group (children in this example) is shown to the exclusion of any other collective groups (i.e. all of the children (and only the children; to the exclusion of their mothers and fathers)).

- 8.14) *abərramba=lhangwa wurri-rn-dhirnd-arrngwa*
 3A.PRO.SEQ=POSS 3A-??-mother-3A.KIN
narr-ik-ekarrnga-rna arakba angwura
 REAL.3A-REDUP(?)-follow-PST COMPL.ACT NEUT.fire
yukwurna=mərra=wiya=dha, arakba
 MASC.bailer.shell=COM=QUANT=TRM COMPL.ACT
neni-karra-nga abərramba=lhangwa wurr-akəna=dha
 REAL.3A>3M-roast-PST 3A.PRO.SEQ=POSS 3A-that=TRM
 ‘Now in their turn the mothers scooped up the fire with all the bailer shells and roasted him’ [source translation]
 (GL, A3369a Side1, a3.6 Nubardubarda-langwa)

- 8.15) a. *dhuwalyu=wiya*
 FEM.curlew=QUANT
 curlews [i.e. all the birds are curlews]
 (Stokes 1982: 55)
- b. *warningkwarba=wiya*
 3A.man=QUANT
 all the men [to the exclusion of females, i.e. only males]
 (Stokes 1982: 55)
- c. *mangkarrkba m-urukwu=wiya*

While the QUANTIFICATIONAL =*wiya* is generally used with indefinite collective sets of two or greater, it can also occur with singular entities. Where it is clear that the argument marked with =*wiya* is singular, it emphasises that it is only that argument that is being referring to. For instance, (8.18) highlights that it is only the one canoe that the man threw out, and (8.19) emphasises that it is only the second person referent (Nadija) who must eat (i.e. you eat them yourself; just you).

- 8.18) *malamukwa=wiya* *numa-wurra-Ø*
 VEG.dugout.canoe=QUANT REAL.3M>VEG-throw.away-USP
arrawa=lhangwa *amba* *nara* *n-ibina* *nenumamalya*
inside=ABL but NEG 3M-this 3M.person
 ‘But he only threw out the canoe from underneath, he wasn't there’
 (Malamukwa-lhangwa, A3369b Side1 a4.4)

- 8.19) *k-alyabarə-na kinjeya* *Nadija nungkwa=lhangwa=wiya*
 IRR.2-eat-NPST EXCL Nadija 2.PRO=POSS=QUANT
 ‘You eat them by yourself, Nadija’
 (GL, A3369a Side1, a3.9 Yukwurrkwa-langwa akwa yingwa-langwa
 ‘Frogmouth and crow’)

In addition to count nominals (as demonstrated in the discussion above), the QUANTIFICATIONAL =*wiya* can also occur with mass nominals. This trait of not distinguishing between quantification over count versus mass nominals is common across Australian languages.

The use of the QUANTIFICATIONAL =*wiya* with mass nominals is demonstrated in example (8.20), where it is expressing that all of the land was dry and hot (i.e. the land, all of which was dry and all of which was hot). Similarly, examples (8.21) and (8.22) express that all of the dirt [is on bone/book], i.e. the bone/book is covered in all of the dirt (= a lot/large quantity of dirt).

- 8.20) *nara* *ebina* *amarda* *ka-lhungku-warrə-na*
 NEG NEUT.that NEUT.grass IRR.NEUT-foilage-move-PST
ekburingka=wiya, *ardədharra=wiya* *makarda=baba*
 NEUT.dry=QUANT, NEUT.hot=QUANT VEG.sea= REAS

nəmə-lhəke-na

VEG-go-PST

‘There was no grass growing, [it (the land) was] all dry, [and] hot, because the sea had come [up]’ [source translation]

(NW, A3368a Side1, a1.1 Chasm Island, 00:03:29.356 - 00:03:34.530)

8.21) *ajiringka=wiya* *adhudhura*

NEUT.soil=QUANT NEUT.bone

‘dirt-covered bone/ bone with lots of dirt on it’ [source translation]

(Leeding 1989: 300)

8.22) *ajiringka=wiya* *ena* *jurra* *nungkwu=lhangwa*

NEUT.soil=QUANT NEUT.this NEUT.book 2.PRO=POSS

‘This book of yours is dirty’ [i.e. your dirt-covered book/ your book with lots of dirt on it] [source translation]

(Stokes n.d.-b: 45)

8.3.1.2 Temporal properties

The QUANTIFICATIONAL clitic =*wiya* expresses a range of temporal properties, occurring with nominal/verbal predicates, as well as with adverbials and demonstratives (including adverbials in which the clitic =*wiya* is obligatory).

Nominal/verbal predicates

The QUANTIFICATIONAL clitic =*wiya* can be employed to generate an adverbial adjoined clause that specifies a temporal relation with the matrix clause. Here, the =*wiya* clitic occurs following either a nominal predicate or a fully inflected finite verb. This is similar to the T-complementising case function of the case marking clitics overviewed in §8.2.

In this capacity the =*wiya* clitic can follow a nominal predicate (as in examples (8.23) and (8.24)), or a fully inflected verb (as in examples (8.25) and (8.26)), where it is involved in expressing the temporal duration of the adjoined clause, which continues across the period time during which the matrix clause takes place.

- 8.23) *n-enibu=wiya* *nungw-ena*
 3M-alive=QUANT 3M.father-2.KIN
 ‘while your father is/was alive’ [source translation]
 (Stokes n.d.-b: 116)
- 8.24) *arakba+wiya* *yirruwa* *yirri-yukwayuwa=wiya*
 COMPL.ACT+QUANT 1A.PRO 1A-small=QUANT
 ‘long ago when we were children’
 (‘Awurukuwa’ story, w1, in van Egmond 2012: 301)
- 8.25) *nəng-alyəba-rna* *akwalya* *nə-məngkwalha=wiya* *marrnga*
 REAL.1-eat-PST NEUT.fish REAL.3M-sleep.PST=QUANT VEG.sleep
 ‘I ate it while he was sleeping’
 (Leeding 1989: 494)
- 8.26) *nəng-angkarrə-nə=wiya* *ngayuwa,* *nəngənga-rrəngka-Ø*
 REAL.1-run-PST=QUANT 1.PRO REAL.1>FEM-see-PST
dhəngarrbiya aba *yinəngilya=manja*
 FEM.crocodile NEUT.that.over.there MASC.sandbar=LOC
yingu-kuw+arjeya
 FEM-stand.next.to.water.PST
 ‘While I was running I could see the crocodile standing there on the sandbar’
 (Dingarrbiya-lhangwa akwa Dinginjabena-lhangwa, S36a)

In contrast to the ‘primary’ case clitics, which occur only in adjoined clauses, when attached to a verbal predicate, =*wiya* can occur in independent clauses, in addition to occurring in adjoined clauses. =*wiya* can occur attached to REALIS-V-NPST (i.e. with a present temporal frame) and REALIS-V-PST (i.e. with a past temporal frame) inflected finite verbs in independent clauses.

Attached to REALIS-V-NPST inflected verbs, =*wiya* is involved in expressing a present progressive reading, as in examples (8.27) and (8.28).

- 8.27) *nəng-alburre-na=wiya* *ni-yama-Ø*
 REAL.1>NEUT-split-NPST=QUANT REAL.3M-say-PST

“‘I’m splitting it” he said’ [i.e. I’m in the middle of splitting it]
 (AA, A3369a Side2, a3.11 Yingarna-langwa ‘Story about a snake’)

- 8.28) *nəngə-kwəlharri-ji-na=wiya* *akwungwa* *gardənə=manja*
 REAL.1-flow-CAUS-NPST=QUANT NEUT.water NEUT.garden=LOC
 ‘I am watering the garden’ [i.e. I’m in the middle of watering the garden]
 (Leeding 1989: 315)

When occurring with REALIS-V-PST inflected verbs, =*wiya* is involved in expressing a past imperfective reading, as in examples (8.29), where the speaker is explaining that long ago, for a prolonged period of time, the country was pristine and untouched.

- 8.29) *arəkb-ərakba-kiya=wiya* *enikadhuwa=wiya* *angalya*
 REDUP-COMPL.ACT-two=QUANT NEUT.new=QUANT NEUT.place
engkinyungwurra *nuw-ambilyu=wiya*
 NEUT.untouched REAL.NEUT-stay.PST=QUANT
 ‘Long, long ago, this place was new, pristine and untouched’
 (JL, LY, fieldnotes, 30/05/2019)

As discussed in Chapter 6, the inflectional system of Anindilyakwa is fairly aspectually underspecified, and therefore the language compensates by using other devices, such as reduplication (§7.1) and prosodic lengthening (§7.2). The use of =*wiya* clitic to express these imperfective aspectual readings can therefore be seen as another device the language employs to compensate for the underspecified inflectional aspectual system. However, data involving the =*wiya* clitic in independent clauses is sparse, therefore more insightful analyses of these temporal and aspectual readings would profit from further data collection.

Adverbials and demonstratives

As with the case clitics discussed in §8.2, =*wiya* can occur attached to adverbials and demonstratives. However in comparison to case clitics, which occur with a limited distribution and frequency attached to adverbials/demonstratives, =*wiya* occurs frequently with many different adverbials and demonstratives. In fact, some temporal adverbials (particularly fixed time-of-day expressions), occur obligatorily with the QUANTIFICATIONAL =*wiya* (e.g.

buwa+wiya ‘at first light’ and *wurdarriya+wiya* ‘morning’ (as shown in (8.23)). In these cases, *buwa-* and *wurdarriya-* are cranberry morphs, which cannot occur without the QUANTIFICATIONAL =*wiya*.

- 8.30) *nuw-andheya* *wurdarriya+wiya* *yubukwaya* *arakba*
REAL.3A-look.PST morning+QUANT MASC.that.coming COMPL.ACT
yelyukwa=dha
MASC.rain= TRM
‘They all looked in the morning and it was raining’ [source translation]
(Ngayawuma-lhangwa, A3369b Side1 a4.3)

Other adverbials optionally occur with the QUANTIFICATIONAL =*wiya*. For example, *adhənabə* ‘soon’, occurs with the QUANTIFICATIONAL in order to express that an event occurred first out of a sequence of events, or that the situation took place shortly before the reference time (as in 8.31).

- 8.31) *John n-alyba-rnə=ma* *adhənubə=wiya* *akəna*
John REAL.3M-eat-PST=MUT soon=QUANT NEUT.that
sandwich
NEUT.sandwich
‘He already ate it’ [speaker translation]
(JL, JRB1-074-01, 00:20:57-00:21:05)

Adverbials which interact with the QUANTIFICATIONAL clitic =*wiya* are listed in Table 8.5. While it is difficult to provide an overarching semantics of the =*wiya* clitic with respect to its interaction with different adverbials, we can observe that the most widespread association is in relation to:

- i) the expression of a past temporal reference point (e.g. *arakba+wiya*, *engka+wiya*, *nara+wiya*);
- ii) the expression of the initial starting point of either a sequence of events or of a delineated time period (e.g. *adhəna[k]ba=wiya*, *buwa+wiya*, *wurdarriya+wiya*);
- iii) the duration of a delineated time period (e.g. *adhuwaba=wiya*).

For other adverbials, the semantic contribution of the =*wiya* clitic to the adverbial is difficult to ascertain (e.g. *adhuwaya* vs. *adhuwaya*=*wiya*; *adhənuba* vs. *adhənuba*=*wiya*; *wəranja* vs. *wəranja*=*ba*=*wiya*). The interaction with the QUANTIFICATIONAL clitic =*wiya* with certain temporal adverbials is discussed further in Appendix B.

Aspectual adverbials:	
<i>arakba</i> ‘COMPL.ACT’	<i>arakba</i> + <i>wiya</i> ‘long ago’
Measure adverbials:	
<i>adhuwaya</i> ‘for a short time’	<i>adhuwaya</i> = <i>wiya</i> ‘for a short time’
Temporal relational adverbials:	
<i>adhənuba</i> ‘soon, recently, in a short time (before/after)’	<i>adhənuba</i> = <i>wiya</i> ‘first, at first, to start with, beforehand, already’
<i>adhəna[k]ba</i> ‘already’	<i>adhəna[k]ba</i> = <i>wiya</i> ‘already’
<i>adhuwaba</i> ‘today’	<i>adhuwaba</i> = <i>wiya</i> ‘during the day, for the day’
<i>engka</i> ‘another’	<i>engka</i> = <i>wiya</i> / <i>mingka</i> = <i>wiya</i> ‘[day/night/year] before, next [day/night/year], the other [day/night/year]’
Frequency adverbials:	
<i>arngkawura</i> ‘all the time, forever’	<i>arngkawura</i> = <i>wiya</i> ‘straight away, immediately’
Fixed time-of-day adverbials:	
-	<i>buwa</i> + <i>wiya</i> ‘at first light’
-	<i>wurdarriya</i> + <i>wiya</i> ‘morning’
Manner adverbials:	
<i>abalkaya</i> ‘high’	<i>abalkaya</i> = <i>wiya</i> ‘lightly’
<i>wəranja</i> ‘quickly, soon	<i>wəranja</i> + <i>ba</i> = <i>wiya</i> ‘quickly’
Negation adverbials:	
<i>nara</i> ‘NEG’	<i>nara</i> + <i>wiya</i> ‘before’

Table 8.5 Interaction between adverbials and the QUANTIFICATIONAL =*wiya* clitic

The demonstratives *akəna* ‘that’, *ebəna* ‘this same’ and *enəna* ‘this’ also interact with the QUANTIFICATIONAL =*wiya* (as well as other clitics) in order to express temporal relations, as displayed in Table 8.6. These demonstratives and the temporal properties they display when in combination with the QUANTIFICATIONAL clitic =*wiya* (as well as the ABLATIVE =*lhangwa*, PERLATIVE =*lhangwiya*, PURPOSIVE =*yedha*, LOCATIVE =*manja* and =*mər̄ra+dha*) are discussed in §8.4.

	<i>akəna</i> ‘that’	<i>ebəna</i> ‘this same’	<i>enəna</i> ‘this’
= <i>wiya</i>	<i>akəna</i> = <i>wiya</i> ‘while, previously mentioned time, during that past time’	<i>ebəna</i> = <i>wiya</i> ‘before, a while ago, other day, during those few days, that time in the past’	<i>enəna</i> = <i>wiya</i> ‘now, straight away, immediately, during the present time’

Table 8.6 Interaction between demonstratives and the QUANTIFICATIONAL =*wiya* clitic

8.3.2 PERLATIVE =*lhangwiya*

The PERLATIVE clitic =*lhangwiya*, whose primary case function when attached to nominals is to express movement or progression through space, also occurs with adverbials and demonstratives, as well as on inflected verbs, expressing different temporal properties. These are overviewed below.

Local case marker (nominals and relative clauses)

The PERLATIVE¹⁰⁴ case clitic =*lhangwiya*, formally composed of the ABLATIVE clitic =*lhangwa* and QUANTIFICATIONAL clitic =*wiya*, expresses movement and progression ‘through, along, across or over a location’ (Leeding 1989: 313) when combined with a nominal, as in examples (8.32) and (8.33).

¹⁰⁴ Leeding (1989: 313) labels this the ‘locative pergressive morpheme’, and suggests it is semantically linked with the QUANTIFICATIONAL case clitic =*wiya* (what she labels the ‘time pergressive morpheme’), stating that they ‘both denote movement or progression through space’. However, as we have observed in §8.3.1, it is not as simple as this, with the QUANTIFICATIONAL clitic demonstrating a range of temporal semantic properties.

- 8.32) *errubulena* *num-angkarrə-na* *arrawu=lhangwiya*
 NEUT.aeroplane REAL.VEG-run-NPST below=**PERL**
 ‘The plane flew low’ [i.e. along the low (horizon)]
 (Stokes n.d.-b: 12)
- 8.33) *akena* *nara* *ebəna=lhangwiya* *alhəka*
 however NEG NEUT.that.same=**PERL** NEUT.foot/path
karrəngə-lhəke-na
 IRR.3F.DU-go-PST
 ‘But they didn’t go back along the same way’
 (AA, A3369a Side2, a3.11 Yingarna-langwa ‘Story about a snake’)

Similarly, the PERLATIVE clitic =*lhangwiya* can occur on fully inflected verbs in relative clauses, retaining the spatial meaning it expresses on nominals, indicating a progression through space, as shown in example (8.34).

- 8.34) *kə-lhəka-ja=ma=lhangwiya* *ngayuwa* *nəngə-nə-məlhəka*
 IRR.1-go-NPST=DEP=**PERL** 1.PRO 1-M-footprint
yikə-lhəkəwamurrkaji-na
 IRR.2A>NEUT-follow-NPST
 ‘I will be going through [the area], you can follow my tracks’ [i.e. you can follow my tracks, that will go through [the area]]
 (Leeding 1989: 314)

Here, the location [the area] is not overtly expressed in the clause, with the PERLATIVE clitic attached to the verb, indicating the progression through space, with the area of the progression inferred contextually. As is the case in relative clauses in Anindilyakwa, it occurs with the DEP =*ma* ~ =*mərra* clitic, functioning as a subordinator (van Egmond 2012: 307). This is in contrast with its occurrence in t-complementising clauses, in which the =*ma* ~ =*mərra* clitic is disallowed (see section below, and §2.5.3).

=*wiya* indicates a ‘continuation of the action’. However, as with =*wiya* attached to verbs in adjoined clauses, there is also only a very small number of attested examples of =*wiya* attached to a finite verb in an independent clause, and thus more data is also required in order to undertake further future research into this area.

- 8.36) *nāngu-wilyakə-nə=hangwiya. ngayuwa bajikala angalyu=wa*
 REAL.1-take-PST=PERL 1.PRO NEUT.billycan NEUT.place=ALL
 ‘I carried along my billycan to [my] home’
 (Leeding 1989: 314)

- 8.37) *nə-mə-nə=hangwiya enə=hangwa bangkilya*
 REAL.3M>NEUT-take-PST=PERL 3M.PRO=POSS NEUT.axe
yilyakwi=yedha
 MASC.sugarbag=PURP
 ‘He picked up his axe so that [he could go] for honey’
 (Leeding 1989: 314)

Adverbials and demonstratives

As with the QUANTIFICATIONAL clitic =*wiya*, the PERLATIVE can express a range of temporal properties, occurring with adverbials and demonstratives, as well as with nominal/verbal predicates.

Like the QUANTIFICATIONAL clitic, the PERLATIVE can attach to the NEGATIVE adverbial *nara* in order to express a past temporal reference point (*nara+hangwiya* ‘before’). For the rest of the adverbials the PERLATIVE attaches to, the semantic contribution of the =*hangwiya* clitic to the adverbial is difficult to ascertain (e.g. *adhuwaya* vs. *adhuwaya=hangwiya*; *adhənuba* vs. *adhənuba=hangwiya*; *adhəna[k]ba* vs. *adhəna[k]ba=hangwiya*; *ar[ə]ngkədharrba* vs. *ar[ə]ngkədharrba=hangwiya*). These adverbials and their interaction with the QUANTIFICATIONAL and PERLATIVE clitics are discussed further in Appendix B.

Measure adverbials:	
<i>adhuwaya</i> ‘for a short time’	<i>adhuwaya=hangwiya</i> ‘for a short time’
Temporal relational adverbials:	

<i>adhənu</i> ba ‘soon, recently, in a short time (before/after)’	<i>adhənu</i> ba= <i>lhangwiya</i> ‘for a short time, in a short time (before/after)’
<i>adhəna</i> [k]ba ‘already’	<i>adhəna</i> [k]ba= <i>lhangwiya</i> (?)
<i>ar</i> [ə]ngkədharrba ‘soon, recently, in a short time (before/after), for a short time’	<i>ar</i> [ə]ngkədharrba= <i>lhangwiya</i> ‘soon, recently, in a short time (before/after), for a short time’
<i>Negation adverbials:</i>	
<i>nara</i> ‘NEG’	<i>nara</i> = <i>lhangwiya</i> ‘before’

Table 8.7 Interaction between adverbials and the PERLATIVE =*lhangwiya* clitic

The demonstratives *akəna* ‘that’, *ebəna* ‘this same’ and *enəna* ‘this’ also interact with the PERLATIVE =*lhangwiya* (as well as other clitics, such as the QUANTIFICATIONAL discussed above) in order to express temporal relations, as displayed in Table 8.8. These demonstratives and the temporal properties they display when in combination with the PERLATIVE clitic (as well as with other case/spatio-temporal clitics) are discussed in §8.4.

	<i>akəna</i> ‘that’	<i>ebəna</i> ‘this same’	<i>enəna</i> ‘this’
= <i>lhangwiya</i>	<i>akəna</i> = <i>lhangwiya</i> ‘same time’ (?)	<i>ebəna</i> = <i>lhangwiya</i> ‘according to’	-

Table 8.8 Interaction between demonstratives and the PERLATIVE =*lhangwiya* clitic

8.4 Summary

Clitics, which are prosodically dependent on a preceding word, can attach to the verbal complex and, in addition to the inflectional tense-aspect system, are involved in the expression of aspectuo-temporal properties. This is particularly notable in complex clausal constructions, where clitics are involved in expressing different temporal relations between dependent and matrix clauses.

Clitics occur frequently with nominals, often indicating semantic roles concerning motion and physical location, however they can also attach to other parts of speech, where (rather than expressing the (primarily) spatial roles when attached to nominals) they express

temporal properties. In this capacity, clitics can attach to adverbials and demonstratives, as well as to fully inflected verbs.

Clitic marked verbs generally occur in dependent clauses (both relative and (t-complementising) subordinate clauses), however some spatio-temporal and modal clitics can also attach to fully inflected finite verbs in main clauses (expressing temporal or modal readings).

‘Primary’ case clitics (i.e. ABLATIVE, ALLATIVE, LOCATIVE, DENIZEN) can attach to a fully inflecting finite verb in a dependent clause, indicating a temporal or logical relation between the main and subordinate clause. While spatio-temporal and modal clitics can attach to verbs in both main and dependent clauses, case clitics are restricted to dependent clauses, unable to occur independently.

Spatio-temporal clitics (QUANTIFICATIONAL =*wiya* and PERLATIVE =*lhangwiya*) behave in many respects like the ‘primary’ case clitics. They can attach to nominals in order to express spatial or quantificational information regarding the argument, and attach to inflected finite verbs in dependent clauses, expressing a temporal relation with regard to the matrix clause (like ‘primary’ case clitics are able to do). However, in addition to this, spatio-temporal clitics can occur attached to inflected finite verbs in independent clauses, where they modify aspectuo-temporal properties of the situation. Spatio-temporal clitics also occur with a much wider range of temporal adverbials and demonstratives (particularly the QUANTIFICATIONAL =*wiya*).

Part III

Modality

Chapter 9

Inflectional modal marking, negation, and the interplay between aspectuo-temporal and modal parameters

As was overviewed in Chapters 2 and 6, TAM expression, is realised inflectionally in Anindilyakwa through combining information from at least two discontinuous morphological slots of the verbal structure. One of three series of pronominal prefixes (REALIS, IRREALIS, DEONTIC) combines with one of four possible TAM suffixes (NON-PAST, PAST, Ø, POTENTIAL), the combination of which expresses different aspectuo-temporal and modal readings.

While Chapter 6 focussed primarily on past and present temporal frames, considering the combination of the REALIS portmanteau prefix series + TAM suffixes, this chapter is concerned with non-factual modal expression, involving the combination of (primarily) the IRREALIS – but also the DEONTIC pronominal series – with TAM suffixes. Given the temporal/modal properties of REALIS-V-NPST/PST/Ø vs. IRREALIS-V-NPST/PST/Ø/POT inflectional marking, it is logical to divide the discussion in this manner across Chapters 6 and 9.

I begin this chapter by overviewing the terminology and approaches to modality that I follow in this thesis (§9.1), before providing an outline of the modal system of Anindilyakwa in §9.2, considering verbal inflectional morphology, adjectival phrases, particles, clitics, and

complex clausal constructions. While this modal system is briefly overviewed in §9.2, the rest of the chapter then focusses particularly upon the inflectional system (with other more complex means of modal expression examined in Chapter 10).

§§9.3-5 examines in detail the form/meaning pairings of the different combinations of discontinuous morphs (portmanteau prefix + TAM suffix) of the inflectional paradigms. While REALIS-V-NPST/PST/Ø inflectional marking is briefly recapped in §9.3¹⁰⁵, the focus of this chapter lies with IRREALIS-V-NPST/PST/Ø/POT inflectional marking (§9.4), given that this is the primary means of expressing non-factual modal contexts (including future readings). The combination of the IRREALIS portmanteau paradigm with the phonologically overt TAM suffixes (PAST/NON-PAST/POTENTIAL) is examined, before particular attention is then paid to IRREALIS-V-Ø inflectional marking, following on from the analysis of REALIS-V-Ø inflectional marking provided in Chapter 6.

Another area of interest examined in this chapter, concerning IRREALIS-V-PAST inflectional marking, is its obligatory use in expressing negative past situations (not an uncommon feature of irrealis marking and negation cross-linguistically). This is examined in §9.6, along with other means of expressing negation, and their interaction with modality.

Finally, DEONTIC-V-NPST/Ø/POT inflectional marking is examined in detail in §9.5.

9.1 Modality preliminaries

Modality can be defined as the linguistic phenomenon ‘whereby grammar allows one to say things about, or on the basis of, situations which need not be real’ (Portner 2009: 1). Unpacking this in more detail, modality concerns the status of the proposition that describes a situation (Taleghani 2006: 31), which concerns notions of possibility and necessity (Kratzer 1981: 39), and goes beyond the here and now, beyond observable facts (Hacquard 2006: 11), expressing what might be or might have been; what should be or should have been; what could be or could have been. It expresses ‘the speaker’s general intent and... degree of commitment towards a proposition... [indicating] a relation between the actual world in which a situation occurs, and the worlds in which the expressed situation is evaluated’ (van de Vate 2011: 131).

This is different to the notion of ‘mood’, which covers two related notions: (i) what is sometimes referred to as sentential mood, related to sentence types and concerning illocutionary functions (declarative, interrogative, imperative, etc.), and (ii) verbal mood, i.e.

¹⁰⁵ Although given that this inflectional marking is used predominantly in factual or actualised contexts, expressing past or present temporal frames, the reader is directed to Chapter 6 for further discussion.

categories grammatically dependent on modality expressed elsewhere in the sentence (Portner 2009: 6), e.g. indicative/subjunctive mood. Both of these notions of mood are generally associated with expression through verbal morphology (Palmer 1986: 21). While the notions of modality and mood are tightly related (Kaufmann & Kaufmann 2016: 550), it is modality that is of central interest to this chapter^{106,107}.

In considering modality, we can distinguish different kinds of modal meaning. There is little unanimity among scholars regarding how modal categories should be categorised or what the list of these categories should look like (Nuyts 2016: 33), however generally a ‘traditional’ categorisation comprises of two main modal divisions, between epistemic (concerning what is possible or necessary given what is known or given what the available evidence is) and root modality. It is the category of root modality that has proven the most wide-ranging in terms of classification in the literature, covering a large number of different kinds of modal meanings. Further sub-divisions of this category include (but not restricted to) deontic (concerning what is possible, necessary, permissible, or obligatory, given a body of law or a set of moral principles (von Stechow 2006: 2)), dynamic (concerning what is possible or necessary, given a particular set of circumstances), bouletic (concerning what is possible or necessary, given a person’s desires) and teleological (concerning what means are possible or necessary for achieving a particular goal).

Portner (2009) provides a comparison of the traditional categorisation of different kinds of modal meanings with three other prominent classifications in the literature, shown in Table 9.1. Throughout this thesis, I follow mainly the traditional categorisation, but with some inspiration drawn from Portner (2009). As examined in detail in this chapter, many modal expressions ‘can be used to express many or all of these kinds of modal meaning... [while others] are more specialised in what kind of meanings they can carry’ (von Stechow 2006: 2).

Traditional	Epistemic	Root		X
		Deontic	Dynamic	
Brennan (1993)	Epistemic	Root		
		Deontic	Dynamic	Quantificational

¹⁰⁶ Sentential mood is mentioned in Chapter 3, and the notion of verbal mood is considered in relation to the DEONTIC paradigm in §9.5.

¹⁰⁷ Given that the modal portmanteau prefixes in Anindilyakwa are not dependent on a governing modal operator (unlike e.g. indicative/subjunctive moods cf. Mathewson 2010, Portner 2009), I do not consider these instances of verbal mood; rather they are inflectional modal markers that, in combination with a TAM suffix, introduce a modal operator themselves.

Hacquard (2006)	Epistemic	True deontic	Root			X
			Goal-oriented		Ability	
Portner (2009)	Epistemic	Priority			Dynamic	
		Deontic	Bouletic	Teleological	Volitional	Quantificational
This thesis	Epistemic	Root				
		Deontic	Bouletic	Teleological	Volitional	Dynamic (abilitative/ capacitive)/ quantificational

Table 9.1 Semantic classifications for modality (based on Portner 2009: 140)

The most important theoretical concept in modern analyses of modality is that of possible worlds, originally proposed by Hintikka and Kripke in the 1960s, which has proved to be central to virtually every semantic analysis of modality (Cover 2010: 11). This approach to modality has evolved over time, into the standard account in formal semantics, with the bulk of theoretically-informed research on modality occurring within this framework (Portner 2018: 13). Under this approach, modals express quantification over possible worlds, where possibility modals correspond to existential quantification and necessity modals correspond to universal quantification, and where different types of modal readings will correspond to different choices of sets of possible worlds as the domain of quantification (von Stechow 2006: 3).

The most influential interpretation of this idea, and the now ‘standard theory of modality’ within formal semantics, is that of Kratzer (1977; 1991; 2002; 2012), which is often taken as a working assumption in semantic research (Portner 2009: 47), demonstrating that ‘the various types of modality – epistemic, deontic, etc. – can be assigned a uniform semantics’ (Cover 2010: 12). My approach to modality in this thesis takes a Kratzerian possible-worlds theory of modality as its basis.

Kratzer’s approach is based principally on two important notions, of (i) relative modality, and (ii) ordering semantics (i.e. that modals don’t merely classify a possible world as either accessible or inaccessible, but rather they order them according to some relevant criteria). In fact, Kratzer’s approach makes modal expressions doubly relative, necessitating that they be understood relative to (i) a set of accessible worlds (the modal base), and (ii) an ordering of those worlds (referred together as ‘conversational backgrounds’) (von Stechow 2006: 4).

On this basis, the variation found in modal meanings can be explained through the interaction of three features: (i) the quantificational strength (possibility, necessity, and variation in between), (ii) the modal base, and (iii) the ordering source (von Stechow 2006: 4).

The notion of relative modality refers to the idea that modals are vague (rather than ambiguous), and therefore instead of treating the many different possible modal meanings as cases of (accidental) polysemy, we should rather view this as the outcome of context dependency (von Stechow 2006: 6). That is, one modal morpheme can have several different interpretations, relative to one or more sets of background assumptions (Kratzer's 'conversational backgrounds'). For example, the differences between the epistemic and deontic readings of English *must* derive from the particular conversational backgrounds chosen in the context (Portner 2009: 48).

Thus, context triggers the correct interpretation, and is provided by modal force (which distinguishes between possibility and necessity modality), and conversational background (which provides the context by which a proposition should be interpreted) (van de Vate 2011: 134).

As mentioned above, the conversational background can serve either of two basic functions; specifying the set of accessible worlds (the modal base), and defining 'an ordering on the set of worlds accessible from that world' (the ordering source) (Kratzer 1991: 644).

Following on from the categorisation of modality discussed in and around Table 9.1, the modal base proposed by Kratzer has a direct counterpart to the main epistemic vs. root modality distinction, where epistemic modality comprises all occurrences of modals with an epistemic modal base (i.e. referring to the knowledge of the speaker with respect to what may or must be in a world), and root modality (a potentially problematic category, given the wide range of different modal meanings encapsulated under this) comprises all occurrences of modals with a circumstantial modal base (referring to what can or must happen in a world with respect to the circumstances under consideration; i.e. those worlds concerned with conditions that cause or allow an event to happen (Hacquard 2011: 1501)) (Kratzer 1991: 650). We can illustrate this distinction of the two modal bases in English, for example, in examples (9.1-a) and (9.1-b) (from Kratzer 1991: 646).

- 9.1) a. Hydrangeas can grow here (*circumstantial modal base*)
b. Hydrangeas might be growing here (*epistemic modal base*)

Here, the two sentences differ in their readings in that (9.1-a) is observed as having a circumstantial modal base (i.e. referring to circumstances such as soil quality, climate, etc.), while (9.1-b) is observed as having an epistemic modal base (i.e. to my knowledge it is possible that Hydrangeas are growing here). These are both realistic modal bases, in that the conversational backgrounds ‘assign to every possible world a set of propositions which are true in that world’ (Kratzer 1991: 646). However, circumstantial and epistemic modal bases obviously involve different kinds of facts, where epistemic bases involve what may or must be the case in our world given all the evidence available, while circumstantial bases involve the necessities implied by or the possibilities opened up by certain sorts of facts (Kratzer 1991: 646).

In addition to the modal base, as has been noted above, under Kratzer’s approach ‘instead of a simple dichotomy between worlds which are accessible and worlds which are not, we work with a ranked (or partially ordered) set of worlds’ (Portner 2009: 48), i.e. the conversational background of a modal involves an ordering source, as well as the modal base. However, under Kratzer’s approach, not all kinds of ordering sources are compatible with either epistemic or circumstantial modal bases. Epistemic modal bases take ordering sources related to information (e.g. what the normal course of events is like; reports, beliefs, rumours, etc.), while circumstantial modal bases take ordering sources related to laws (deontic), aims (teleological), wishes (bouletic), etc. (Kratzer 1991: 649). In this manner, epistemic modality has an epistemic modal base and either no ordering source, or an ordering source based on plausibility or stereotypicality; pure dynamic modality has a circumstantial modal base and no ordering source; deontic modality has a circumstantial modal base and an ordering source based on a body of laws or principles; bouletic modality has a circumstantial modal base and an ordering source based on a relevant person’s desires; and so forth (von Stechow 2006: 4). An empty ordering source indicates that the proposition is purely circumstantial or purely epistemic (on the basis of whether the proposition has an circumstantial or epistemic modal base) (van de Vate 2011: 134). This is what we find in example (9.1), where we have a purely circumstantial reading in (9.1-a), and a purely epistemic one in (9.1-b).

If we consider English again, we can consider the examples in (9.2), in which the modal base is the same in all the examples (a circumstantial modal base), however the ordering source differs between the different modal readings:

9.2)

- a. Context: At a dinner party, the guests are eating their main course, prepared by Tim, which they are all enjoying. A guest remarks:
Tim can cook
(circumstantial modal base, empty ordering source)
- b. Context: Person A asks person B where a key should be left, Person B replies:
You can leave the key on the table
(circumstantial modal base, deontic ordering source)
- c. Context:
You can leave [if you want]
(circumstantial modal base, bouletic ordering source)

Thus, in sum, Kratzer offers the following three dimensions with which to consider modal expressions:

- Modal force (necessity, possibility, or some range in between)
- Modal base (epistemic vs. circumstantial)
- Ordering source (deontic, bouletic, teleological, stereotypical, empty, etc.)

That is, a modal reading is restricted by a modal base (circumstantial or epistemic), which returns a set of accessible worlds, which can then be ordered by an ordering source to yield the most ideal worlds of the modal base' (Hacquard 2011: 1501), and which can differ in modal force. Cross-linguistically, modals in and across different languages vary with respect to which of these dimensions is specified by the modal, and which is provided contextually.

For English modals, the conversational background is contextually provided, while it's quantificational force (whether it is universal or existential), is specified. English 'have to', for example, specifies a modal necessity force, but allows a wide range of modal bases and ordering sources, as listed, for example, in example (9.3) from von Stechow (2006: 2).

9.3) *The following examples all express modal necessity, but differ with respect to their modal bases and ordering sources:*

- a. It has to be raining (after observing people coming inside with wet umbrellas) *(epistemic base)*
- b. Visitors have to leave by six pm *(circumstantial base, deontic ordering source)*

- c. To get home in time, you have to take a taxi (*circumstantial base, teleological ordering source*)

On the other hand, in languages such as St’át’imcets (Salish, Canada), it is the modal base that is specified (i.e. either epistemic or circumstantial), while the quantificational force (i.e. necessity, possibility, etc.) is provided by context (Rullmann et al 2008).

As is to be examined in more detail in this chapter, in Anindilyakwa there is no lexification of the classes of modal meanings; both the modal base, and the quantificational force of the modal can be contextually provided, depending on the modal.

If we consider IRREALIS-V-PST/NPST/Ø/POT inflectional marking in Anindilyakwa, for example, we can observe that the modal base and ordering sources can be contextually provided, as demonstrated in examples (9.4) and (9.5). Example (9.4), which can be uttered in several discourse contexts (of which two are listed here), shows two contexts in which the modal base is the same (circumstantial), but which differ with respect to the ordering sources (shown in (9.4-a) and (9.4-b)); while example (9.5) shows two contexts in which the modal base differs, being circumstantial for (9.5-a) and epistemic for (9.5-b).

9.4) Renato=*a* *kən-angə-na=ma*

Renato=PF IRR.3M>NEUT-bite-NPST=MUT

(ST, JRB1-057-01, 00.02.01-00.02.06)

- a. Given that I say so, Renato should bite it
(*circumstantial modal base, deontic ordering source*)
- b. Given that he is capable of it, Renato can/is able to bite it
(*circumstantial modal base*)

9.5) *n-aka* Patrick *kənəmə-kwarre-na=ma* *muwarukwa*

3M-this Patrick IRR.3M>VEG-break-NPST=MUT VEG.fishing.line

(JL, JRB1-042-01, 00:30:35-00:30:42)

- a. Given the available evidence, Patrick might break this fishing line (*epistemic modal base*)
- b. Given that he is capable of it, Patrick can break this fishing line
(*circumstantial modal base*)

Turning back to quantification force, in Anindilyakwa some modals express different degrees of possibility and necessity. IRREALIS-V-PST/NPST/Ø inflectional paradigms, as well as being underspecified for modal type as demonstrated above, are also underspecified for modal force, having the ability to express different degrees of modal force. This is demonstrated by returning to example (9.5), where the IRREALIS-V-NPST inflected verb can express both modal possibility or necessity.

The modal type and force of Anindilyakwa modals is overviewed in §9.2 and examined in more detail with respect to different modal operators in §§9.4-5.

- 9.6) Renato=*a kən-angə-na=ma*
 Renato=PF IRR.3M>NEUT-bite-NPST=MUT
 Renato may/should/must bite it [author translation]
 (ST, JRB1-057-01, 00.02.01-00.02.06)

The temporal anchoring of modals involves both an orientation time, and evaluation time (cf. e.g. Condoravdi 2002). The evaluation time of a modal is that time the worlds in the modal base are calculated. The orientation time of a modal is the relation between the evaluation time and the time of the described event (Matthewson 2012: 432). This is discussed in relation to Anindilyakwa particularly in §9.4.

For circumstantial modals, the evaluation time is the time at which the relevant facts hold (e.g. compare (9.7a) and (9.7b)).

- 9.7) a. John can wriggle his toes (present state of ability)
 b. John could wriggle his toes (past state of ability)

For epistemic modals, the evaluation time is the time at which the knowledge of the relevant agent is evaluated (Matthewson 2012: 432). Compare (9.8a) – (9.8c).

- 9.8) a. John might have been at Umbakumba yesterday
 (*present evaluation time, past orientation time*)
 b. John might be at Umbakuma now
 (*present evaluation time, present orientation time*)

- c. John might be at Umbakuma later
(*present evaluation time, future orientation time*)

Throughout this (and the following) chapter, I base my approach to modality on a Kratzerian (1977; 1991; 2012) possible-worlds theory of modality. However, with respect to modals with a circumstantial modal base in particular, I often use the traditional classifications of modal meanings (outlined in Table 9.1), for ease of readability in sections where comprehensive discussion of conversational backgrounds (consisting of the modal base and ordering source) is not necessary.

9.2 Overview of the Anindilyakwa modal system

As is typical cross-linguistically, modality is expressed via different lexical and grammatical means in Anindilyakwa. The most distinct and ‘core’ means of modal marking in Anindilyakwa, however, is through inflectional marking on the verb; a combination of portmanteau prefix + TAM suffix paradigms. One of the key distinctions within the inflectional modal system is that between REALIS-V-NPST/PST/Ø vs. IRREALIS-V-NPST/PST/Ø/POT inflectional marking, as demonstrated in examples (9.9) and (9.10).

- 9.9) *n-aka nenəŋkwarba n-engkərrka-nə=ma*
 3M-this 3M.man REAL.3M-listen-PST=MUT
 ‘That man listened’ [speaker translation]
 (ST, JRB1-054-01, 00.14.57-00.15.07)

- 9.10) *kən-engkərrka-ja=mərra*
 IRR.3M-think-NPST=MUT
 ‘He might be thinking [about his children]’ [speaker translation]
 (ST, JRB1-054-01, 00.28.49-00.28.56)

This distinction is the basis for factual vs. non-factual modal distinctions (and consequently also to distinguishing between situations occurring before/at and after the reference time (i.e. non-future vs. future)). This is overviewed in §9.2.2, and then examined in detail in §§9.3-5.

The inflectional system interacts with modal particles (example 9.11), clitics (example 9.12), predicative cognition adjectives (example 9.13), volitional verbs (example 9.14) and

conditional structures (example 9.15). This chapter, however, focuses only on the inflectional modal system. Conditionals and modal structures involving modal clitics and volitional verbs are discussed in Chapter 10, predicative cognition adjectives are briefly discussed in §3.2.2.4, and other modal particles are briefly overviewed in Appendix B.

- 9.11) *dhukwa kenə-kwiyerrbu-na*
maybe IRR.3M>MASC-miss-NPST
 ‘He may miss’ [speaker translation]
 (ST, JRB1-051-01, 00.39.50-00.39.56)
- 9.12) *n-akəna kenu-warda-ng=maka arung=manja*
 3M-that **IRR.3M>1-hit-PST=EVIT** NEUT.head=LOC
 ‘He should have hit me on the head’ [author translation; prompt: ‘He should have hit me on the head’]¹⁰⁸
 (JL, JRB1-044-01, 00:21:23-00:21:27)
- 9.13) *n-akəna James n-akakarəma kəni-yengbi-na=ma*
 3M-that James **3M-know** **IRR.3M-speak-NPST=MUT**
ena Anindilyakwa ayakwa
 NEUT.this NEUT.Anindilyakwa NEUT.language
 ‘James can speak Anindilyakwa’ [author translation; prompt: ‘James can speak Anindilyakwa’]
 (JL, JRB1-042-01, 00:26:27-00:26:39)
- 9.14) *akwa nə-ngiyendhe-na=m kənu-lhukwe-na=m*
 and **REAL.3M-want-NPST=MUT** **IRR.3M-dance-NPST=MUT**
alhəkwanja
 NEUT.dance
 ‘He’s trying to dance’ [author translation; prompt: ‘He’s trying to dance’]
 (JL, JRB1-042-01, 00:24:02-00:24:07)

¹⁰⁸ See Chapter 1 (§1.3.4.1) for a discussion of the elicitation stimuli and methods used in collecting modal data, as well as Appendix H for listings of the questionnaires used.

9.15) *angkurra kən-lhəki-ya=many akəna aku-lhukwe-na=ma*
 to.here IRR.3M-go-POT=LOC that IRR.12A-dance-NPST=MUT

alhəkwanja

NEUT.dance

‘If he comes, they will dance’ [author translation; prompt: ‘If he comes, they will dance’]

(JL, JRB1-044-01, 00:25:28-00:25:34)

9.2.1 *The inflectional modal system*

As is characteristic of many non-Pama-Nyungan languages (Verstraete 2005), the primary means of modal expression in Anindilaykwa is through combining information from at least two discontinuous morphological slots of the verb structure. The combination of (one of three series of) portmanteau prefixes (REALIS, IRREALIS, DEONTIC) and (one of four) TAM suffixes (NON-PAST, PAST, Ø, POTENTIAL), result in the expression of different temporal and modal readings. For example, in (9.10) the IRREALIS-V-NPST inflectional marking gives rise to a speculative reading (expressing epistemic possibility).

A primary distinction of the inflectional modal system can be drawn between REALIS-V-NPST/PST/Ø vs. IRREALIS-V-NPST/PST/Ø/POT inflectional marking. As I demonstrate throughout this chapter, REALIS-V-NPST/PST/Ø vs. IRREALIS-V-NPST/PST/Ø/POT inflectional paradigms distinguish a contrast between ‘realised’ and ‘unrealised’ situations, where REALIS-V-NPST/PST/Ø inflectional marking is used predominantly to express situations that are actually occurring or have occurred, knowable through direct perception (see §9.3)¹⁰⁹, while IRREALIS-V-NPST/PST/Ø/POT inflectional marking covers a wider range of possible modal readings, occurring with circumstantial and epistemic (i.e. concerned with possibility and necessity with regard to knowledge of an event) modal bases, and a wide range of ordering sources, including deontic (i.e. concerned with possibility and necessity with regard to permission and obligation) and dynamic (i.e. concerned with ability and willingness in relation to an event). IRREALIS-V-NPST/PST/Ø marking is underspecified for modal force (i.e. can convey variable modal force), covers both open (potential future events) and foreclosed (e.g. counterfactual) possibilities. This is examined in §9.4. In addition, the IRREALIS portmanteau prefix is obligatory in the

¹⁰⁹ There are, however, pragmatic contexts under which the REALIS-V-NPST/PST/Ø inflectional marking can give rise to certain non-actualised modal readings, such as modal necessity (e.g. as in the English epistemic use of *must*, e.g. ‘John must be in bed’ (an assumption given the fact that I saw John earlier and he was looking very tired)). This is considered in §9.3.

marking of negative past situations (i.e. negative past situations take obligatory IRREALIS-V-PST inflectional marking), discussed in §9.6.1.

The third portmanteau prefix series, the DEONTIC, an exponent in discontinuous inflectional marking, occurs in combination with a NON-PAST/Ø/POTENTIAL TAM marker. DEONTIC-V-NPST/Ø inflectional marking is involved in speech acts with directive illocutionary force (i.e. imperatives, hortatives, jussives), and with a circumstantial modal base and deontic ordering source. As with IRREALIS-V-NPST/PST/Ø marking, DEONTIC-V-NPST/Ø marking is underspecified with respect to modal force (i.e. able to convey possibility, weak necessity and necessity). This is examined in §9.5.

Discontinuous inflectional verbal paradigms (portmanteau prefix + TAM suffix) assert a modal semantics, and are not dependent on another governing modal operator (unlike e.g. indicative/subjunctive moods cf. Matthewson 2010, Portner 2009). i.e. portmanteau prefix + TAM suffix inflectional marking introduces a modal operator, and does not need to co-occur with another overt modal marker in order to express modal readings (although they can and often do interact with other modal particles and clitics (see Appendix B)).

Of the TAM suffixes (NON-PAST, PAST, Ø, POTENTIAL) that combine with portmanteau prefixes in order to express modal readings¹¹⁰, the POTENTIAL suffix is of particular interest to this chapter. The POTENTIAL suffix is restricted in its distribution, occurring only in combination with IRREALIS and DEONTIC portmanteau prefixes (i.e. disallowed with REALIS portmanteau prefixes). While IRREALIS/DEONTIC-V-NPST/Ø inflected verbs are underspecified for modal force, IRREALIS/DEONTIC-V-POT inflectional marking limits the modal force of the proposition expressed, where a ‘weaker-than-necessary’ reading of the modal is expressed. The POTENTIAL TAM suffix is discussed further in §9.2.3, and IRREALIS/DEONTIC-V-POT inflectional marking examined in §§9.4-5.

A basic overview of the modal readings that result from the combination of discontinuous (portmanteau prefix + TAM suffix) morphs is summarised in Tables 9.2 and 9.3. Table 9.2 shows inflectional markers and their resulting modal readings in positive polarity contexts, and Table 9.3 in negative polarity contexts. See §2.2 for further discussion of the combinatorics of TAM marking in Anindilyakwa, and the grammatically acceptable (and unacceptable) possible combinations of morphs.

¹¹⁰ See Tables 2.1 and 2.2, and the discussion in §2.2, for discussion of the grammatically acceptable combinations of pronominal prefix and TAM suffix paradigms in positive and negative contexts.

Inflectional affix		Modal and temporal meanings
Prefix	Suffix	
REAL-	-NPST	'Realised' situations: situations that are actually occurring or have occurred
	-PST	
	-Ø	
IRR-	-NPST	Future temporal reference; Epistemic modal base; empty ordering source; (modal force: possibility, necessity) (=epistemic modality) Circumstantial modal base; deontic ordering source; (modal force: possibility, weak necessity, necessity) (=deontic modality) Circumstantial modal base; empty ordering source (=dynamic modality)
	-PST	Epistemic modal base; empty ordering source/ stereotypical ordering source; Circumstantial modal base; deontic ordering source (deontic counterfactual/counterfactual obligation)
	-Ø	Future temporal reference; Epistemic modal base; empty ordering source; (modal force: possibility) (=epistemic modality)
	-POT	Future temporal reference; Epistemic modal base; empty ordering source; (modal force: possibility, weak necessity) (=epistemic modality)
DEON-	-NPST	Circumstantial modal base; deontic ordering source; (modal force: possibility, weak necessity, necessity) (=deontic modality)
	-Ø	
	-POT	Circumstantial modal base; deontic ordering source; (modal force: possibility, weak necessity) (=deontic modality)

Table 9.2 Inflectional modal marking (positive polarity)

Inflectional affix		Modal meaning
Prefix	Suffix	
IRR-	-PST	‘Realised’ situations: situations that have occurred; Epistemic modal base; empty ordering source; (modal force: possibility) (=epistemic modality) Epistemic modal base; empty ordering source; (past conditional, counterfactual); (=epistemic modality) Circumstantial modal base; deontic ordering source; (modal force: necessity); (=deontic modality) Circumstantial modal base; deontic ordering source (deontic counterfactual/counterfactual obligation) (=deontic modality) Circumstantial modal base; empty ordering source (=dynamic modality)
	-NPST	Habitual (never)
NEG.NPST-	-NEG.NPST	‘Realised’ situations: situations that are occurring; Future temporal reference (incl. intention/plan); Epistemic modal base; empty ordering source; (modal force: possibility); (=epistemic modality) Circumstantial modal base; deontic ordering source; (modal force: necessity); (=deontic modality) Circumstantial modal base; empty ordering source (=dynamic modality)

Table 9.3 Inflectional modal marking (negative polarity)

As can be observed in these summary tables, IRREALIS paradigms in particular are involved in a wide range of modal readings. Thus, a key question explored in this chapter is how to best account for the large range of meanings (spanning temporal (future) parameters, modal readings and (negative) polarity) that this inflectional modal marking licences. In addition, the IRREALIS portmanteau prefix occurs obligatorily with certain modal clitics, combining to express bouletic, teleological and epistemic modality in the form of apprehensives and intentionals. These more complex constructions are examined in §10.2 and §10.3.

From the multiple readings involving the IRREALIS portmanteau prefix series (illustrated in Table 9.3), two broad clusterings of semantic meanings can be observed; open

possibility readings (those taking non-past marking); and foreclosed readings (those taking past marking). Here we find an open possibility category (non-past marked), expressing futures, epistemic modals, proximates, volitionals, deontic modals, apprehensives, and negative non-past situations; and a closed possibility category (past marked), expressing foreclosed possibilities such as counterfactuals, past deontic and epistemic modals, frustratives, and negative past events.

These meaning clusters are related to the notion of semantic maps and paths of change, where clusters are the result of language change, reflecting how a formal category can have various ‘layered’ (Hopper 1991) meanings, and in some cases meanings which have undergone sufficient change that their original connections have been lost (Caudal & Bednall 2017), as displayed in Figure 9.1.

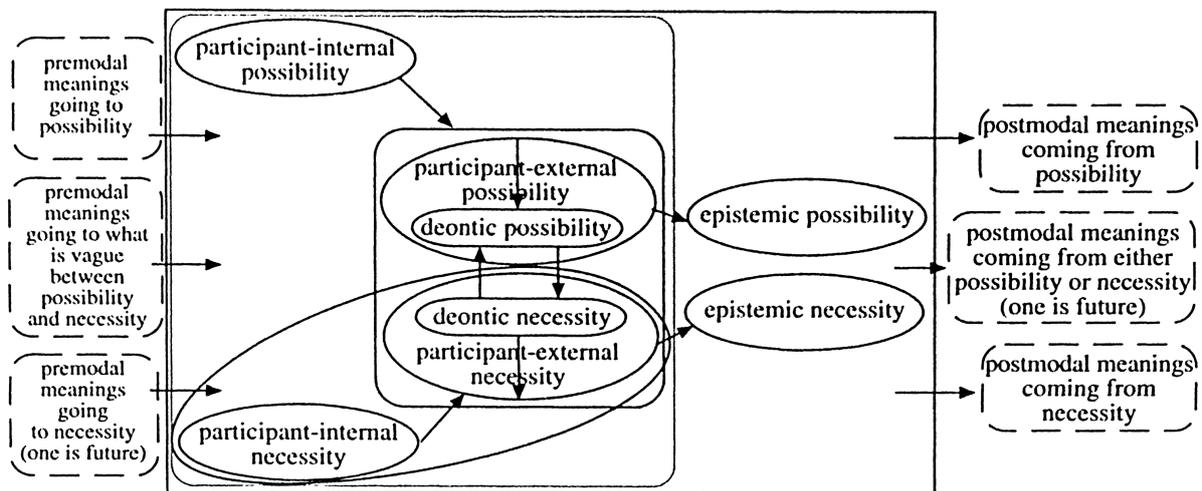


Figure 9.1 Semantic map of modality (Van der Auwera & Plungian 1998)

9.2.1.1 Portmanteau prefixes

As has been mentioned, key distinctions that can be made in the Anindilyakwa inflectional modal system involve REALIS, IRREALIS and DEONTIC inflectional paradigms. The combination of these portmanteau prefixes with TAM suffixes results in different modal, as well as aspectuo-temporal readings (as already prefaced in Chapter 6).

Considering these portmanteau prefix paradigms, we can note major distinctions particularly between i) REALIS vs. IRREALIS/DEONTIC paradigms (given that REALIS-V-NPST/PST/Ø inflectional marking expresses only ‘realised’ situations, that are actually occurring or have occurred, while both IRREALIS/DEONTIC paradigms are involved in a range of modal meanings); and ii) IRREALIS vs. DEONTIC paradigms, given that DEONTIC paradigms are

restricted to occurring with only a circumstantial modal base and deontic ordering source, while IRREALIS paradigms demonstrate a wide range of readings, occurring with circumstantial and epistemic modal bases, and a wide range of ordering sources, (including deontic and dynamic).

Before discussing the modal readings associated with REALIS, IRREALIS and DEONTIC paradigms in detail in §§9.3-9.5, I first consider cross-linguistic notions of realis and irrealis in §9.2.1.1.1, prefacing discussion of REALIS/IRREALIS inflectional paradigms in Anindilyakwa. I also provide some preliminary comments, comparing the IRREALIS and DEONTIC paradigms in §9.2.1.1.2, which are then examined in greater detail in §§9.4-9.5.

9.2.1.1.1 REALIS vs. IRREALIS paradigms

A fairly widely discussed and debated topic in the mood and modality literature is the cross-linguistic validity of an irrealis vs. realis distinction, and the related notion of reality status.¹¹¹ Given the salience of REALIS vs. IRREALIS portmanteau prefixes within the inflectional modal system of Anindilyakwa, I briefly discuss this topic and its relevance to my analysis of the Anindilyakwa inflectional modal system.

The terminological distinction of realis and irrealis has been used in the literature to refer both to i) a grammatical modal category (i.e. an inflectional category on the verb), and ii) a cross-linguistic semantic category marking a difference ‘between events that are portrayed as actualised... [to those] that are portrayed as still within the realm of thought’ (Bhat 1999: 65), i.e. the reality status of a situation.

While there is often an overlap in the real-world interpretation of factuality vs. non-factuality (i.e. differences of ‘reality status’ of a situation) and realis vs. irrealis marking, languages differ cross-linguistically in regard to the correlation between these semantic notions and their grammatical (realis/irrealis) realisations (Frajzyngier 2016: 261).

While the position that recognises irrealis as a meaningful grammatical category that expresses ‘events or states [that] are perceived as being located in an alternative hypothetical or imagined world, but not the real world’ (Elliott 2000: 81) enjoys reasonably widespread agreement (Elliott 2000; Givón 1994; Mithun 1995; Lichtenberk 2016; Palmer 2001), there are others who ‘doubt the typological validity of the realis/irrealis distinction and the notion of ‘reality status’ as an independent grammatical category’ (Nikolaeva 2016: 80) (cf. Bybee et al. 1994; Bybee 1998; Cristofaro 2012; de Haan 2012; Mauri and Sansò 2012).

¹¹¹ Inflectional realis/irrealis systems are widespread in Australian languages, attested in many non-Pama-Nyungan languages (Verstraete 2005).

The criticisms for the typological validity of reality status as a grammatical category, according to Bybee, Perkins & Pagliuca (1994), Bybee (1998) and de Haan (2012) are based on the notion that the semantic and structural reality status systems cross-linguistically lack homogeneity, and that most reality status systems don't approach the expected prototype 'in which a binary distinction between 'realised' and 'unrealised' states of affairs is obligatorily marked in all major construction types of a language' (Michael 2014: 252). Bybee (1998) and Cristofaro (2012) further argue that reality status systems with realis/irrealis distinctions result from grammaticalization processes that demonstrate substantial multi-functionality with respect to modal domains, 'but without the emergence of a notional basis that unites these instances of multifunctionality... [thus] reality status is simply a label of convenience for cases of modal multifunctionality and has little or no synchronic or diachronic notional reality' (Michael 2014: 252).

If we consider the Anindilyakwa REALIS/IRREALIS inflectional paradigms, however, it appears that this prototype of a binary distinction between 'realised' and 'unrealised' states of affairs is apparent (i.e. comparing REALIS-V-PST/NPST/Ø vs. IRREALIS/DEONTIC-V-PST/NPST/Ø/POT inflected verb systems)¹¹². As can be observed in Table 9.4, the inflectional system in Anindilyakwa (involving REALIS/IRREALIS inflectional paradigms) patterns fairly closely with the notional definitions of realis and irrealis offered in the literature (e.g. Mithun 1995).

Semantic parameters	REALIS-V-PST/NPST/Ø marking	IRREALIS-V-PST/NPST/Ø/POT marking
Temporal reference	Non-future	Future
Polarity	Positive	Positive; Negative
Modality	-	Epistemic base; Circumstantial base

Table 9.4 Semantic parameters of the Anindilyakwa REALIS /IRREALIS paradigms (based on a table with similar properties by Michael (2014: 253))

¹¹² While the inflectional system of REALIS/IRREALIS in Anindilyakwa is not strictly binary, due to the third of the DEONTIC portmanteau prefix series, we can observe a binary distinction on the basis of the real-world interpretation of factuality expressed by REALIS paradigms vs. the possibility of expressing non-factuality by IRREALIS/DEONTIC paradigms.

As demonstrated in Table 9.4, and as discussed throughout this chapter, three salient parameters associated with REALIS-V-PST/NPST/Ø vs. IRREALIS/DEONTIC-V-NPST/Ø/POT inflectional marking involve temporal reference (e.g. non-future (example 9.16) vs. future (example 9.17)), polarity (e.g. positive (example 9.16) vs. negative (example 9.18)), and modality (examples 9.19-9.20).

9.16) *yarrungkwa ngayuwa nəngu-bekə-nə=ma tea=a*
 yesterday 1.PRO REAL.1-drink-PST=MUT tea=PF
 ‘I was drinking tea yesterday’ [speaker translation]
 (JL, JRB1-023-01, 00.13.00)

9.17) *ngarna ak-aburrangey-na=ma arnungkwaya*
 12A.this IRR.12A-meet-NPST=MUT tomorrow
 ‘We will meet tomorrow’ [author translation; prompt: ‘We will meet tomorrow’]
 (JL, JRB1-044-01, 00:10:18-00:10:25)

9.18) *wurrajija abərr-aja nara ka-yengbee-yi-na kaba*
 COLL.bird COLL.PRO-CofR NEG IRR.COLL-speak-RECIP-PST quiet
arakba nuw-ambilya
 COMPL.ACT REAL.3A-stay.PST
 ‘The birds weren't saying anything. They were quiet now’ [source translation]
 (NW, A3368a Side1, a1.1 Chasm Island, 00:02:10.400 - 00:02:15.660)

9.19) *nəra=kə n-akən e-yedhə-m ambaka əmba*
 NEG=EMPH 3M-that NEG.NPST-arrive-NEG.NPST later but
amiyerra kən-ambilya=m yakwujin mijiyely=manja
 long.time IRR.3M-stay.NPST=MUT there VEG.beach=LOC
 ‘He might not get there later, but he might still be there at the beach’ [author translation]
 (JL, JRB1-042-01, 00:21:29-00:21:35)

9.20) *Renato=a kən-angə-na=ma*
 Renato=PF IRR.3M>NEUT-bite-NPST=MUT

‘Renato should bite it’ [author translation]
(ST, JRB1-057-01, 00.02.01-00.02.06)

As mentioned above, and discussed in length by Michael (2014: 284), the arguments against a cross-linguistically valid category of realis/irrealis reality status focus on the fact that alleged examples of reality status systems in the literature deviate in different ways from what would be expected as an ideal or prototypical reality status system, and that this vagueness in the semantic features and the set of grammaticalisation tendencies in the modal domain that reality status systems should therefore express has led some scholars to suggest that notions of ‘realis’ and ‘irrealis’ are poor candidates for typologically valid grammatical categories. In particular, it is the notion that the multifunctionality expressed by alleged reality status systems don’t span the full range of unrealised eventualities that scholars such as Cristofaro (2012) use to argue against the idea of reality status as a grammatical category. On this subject, Cristofaro (2012) notes that cross-linguistically unrealised situations fall into two main multifunctional categories: i) involving situations that are as-yet-unrealised (futures, conditionals, directive modals, etc.) and ii) involving situations that involve failed attempts in the past (negation, counterfactuals, frustratives, etc.). She thus proposes that if these readings all originated from some general notion of unrealised state of affairs, that any type of unrealised situation could be included in a single multifunctionality pattern, rather than being restricted to specific types of unrealised situations, suggesting that they originate from grammaticalisation patterns unrelated to the sole property of being unrealised (Cristofaro 2012: 140).

But as we can see in the short overview of REALIS /IRREALIS paradigms in Anindilyakwa above, as well as what is explored in more detailed throughout this chapter, the Anindilyakwa inflectional REALIS/IRREALIS portmanteau prefix + TAM suffix system is a near-ideal (i.e. canonical) reality status system, similar in this respect to the system Michael (2014) describes for Nanti (an Arawak language of Peruvian Amazonia). Inflectional TAM marking (portmanteau prefix + TAM suffix) is obligatory on all Anindilyakwa verbs, with REALIS-V-PST/NPST/Ø vs. IRREALIS/DEONTIC-V-NPST/Ø/POT inflectional marking correlating with a ‘realised’ vs. ‘unrealised’ distinction, which cross-cuts temporal reference, polarity and modality in a manner that we would expect from the notional definitions of reality status in the literature, and furthermore the Anindilyaka IRREALIS paradigm spans both of the

multifunctional patterns that Cristofaro (2012) raises, which suggests a broader notion of unrealised situations.¹¹³

While making claims about the validity of reality status as a cross-linguistic category goes beyond the scope of this project, I nevertheless suggest that the Anindilyakwa REALIS-V-PST/NPST/Ø vs. IRREALIS/DEONTIC-V-NPST/Ø/POT inflectional system displays a fairly canonical reality status system with respect to notional definitions in the literature (cf. Elliott 2000; Givón 1994; Mithun 1995), supporting research of other languages that cross-linguistically appear to have near-ideal reality status systems, and contrasting with one of the main arguments against reality status as a valid grammatical category (e.g. Cristofaro 2012) (cf. Michael 2014). Leaving typology aside and focussing on Anindilyakwa, I suggest that the notion of realis/irrealis in terms of reality status is a useful one in analysing the modal system of the language, given the salience of the REALIS/IRREALIS inflectional paradigms within the inflectional TAM marking system, and so I refer to this, when applicable, in this thesis.

9.2.1.1.2 IRREALIS vs. DEONTIC paradigms

As I have outlined already, the IRREALIS and DEONTIC paradigms (IRREALIS/DEONTIC-V-PST/NPST/Ø/POT) express a range of modal meanings, contrasting with the REALIS paradigm (REALIS-V-PST/NPST/Ø), which is used to express realised situations. However the two differ in that IRREALIS paradigms occur with a wide range of modal meanings (with circumstantial and epistemic modal bases, and a wide range of ordering sources), while DEONTIC paradigms are restricted to occurring only with a circumstantial modal base and deontic ordering source. This means, however, that both IRREALIS-V-NPST/Ø/POT and DEONTIC-V-NPST/Ø/POT inflected verbs can be used to express deontic modal readings, as in examples (9.21) and (9.22).

- 9.21) *kemba* *kə-lhəka-ja=ma* *nəngk-ena* *m-ardədarra=manja*
 then IRR.2-go-NPST=MUT 2-this VEG-hot=LOC
kə-karri-jungu-na=ma *m-ardədarra=manja*
 IRR.2-roast.in.ashes-REFL-NPST=MUT VEG-hot=LOC
 ‘Then you should go in the hot [sun(VEG)] and roast yourself in the hot

¹¹³ Although these multifunctional categories Cristofaro (2012) discusses, involving i) situations that are as-yet-unrealised and ii) situations that involve failed attempts in the past are specified through the interaction of TAM suffixes with the IRREALIS (see §9.4).

[sand(VEG)]' [source translation]

(van Egmond 2012: 174)

9.22) *James=a Ø-lhəkwe-n alhəkwanja*

James=PF DEON.2-dance-NPST NEUT.dance

‘James, you should dance’ [author translation; prompt: ‘You should dance, James’]

(CW, JRB1-049-01, 00:50:53.911-00:50:56.506)

Additionally, both IRREALIS and DEONTIC paradigms can be used with directive (imperative) illocutionary force (examples 9.23 and 9.24). The same inflectional system (i.e. the same paradigmatic forms) are used in Anindilyakwa to express both deontic modal readings, as well as being compatible with imperative/hortative illocutionary force; a characteristic often exhibited by modal-prominent languages like Anindilyakwa (Bhat 1999: 83).

9.23) *Renato k-engkərrə-ja, dhərndh-enu=wa*

Renato IRR.2-listen-NPST 3F.mother-2.KIN=ALL

‘Renato, listen to your mother! [‘when I talk to Renato when he’s naughty [this is what] I say’]’ [speaker translation]

(ST, JRB1-054-01, 00.27.51-00.28.02)

9.24) *Ø-bakə-na=ma*

DEON.2-drink-NPST=MUT

‘Drink this!’ [source translation]

(Stokes n.d.-a: 75)

The modal semantics of IRREALIS and DEONTIC inflectional paradigms are examined in detail in §9.4 (IRREALIS-V-PST/NPST/Ø/POT) and §9.5 (DEONTIC-V-NPST/Ø/POT), and further compared in §9.5.3.

9.2.1.2 TAM suffixes, and their combination with portmanteau prefixes

The aspectuo-temporal properties of the REALIS-V-PAST/NON-PAST/Ø inflectional marking (expressing present and past temporal readings), was examined in detail in Chapter 6. I reintroduce the TAM suffixes (one of the two discontinuous morphs involved in inflectional TAM marking) in this section, in anticipation of examining the IRREALIS and DEONTIC inflectional paradigms in §§9.4-5. In this section I also overview the POTENTIAL suffix (which is disallowed in combination with the REALIS portmanteau prefix series, occurring only in combination with IRREALIS and DEONTIC paradigms).

9.2.1.2.1 Phonologically overt T/A markers (PAST/NON-PAST)

The PAST and NON-PAST markers combine with portmanteau prefixes in order to express temporal distinctions of past (9.25) vs. non-past (9.26), and are underspecified for viewpoint aspect.

- 9.25) *narr-am-angka-rnə=ma* *m-akəna=dha*
 REAL.3A.O-VEG-fetch-PST=MUT VEG-that=TRM
 ‘[The sea] reached them’ [source translation]
 (NW, A3368a Side1, a1.1 Chasm Island 00.02.48)

- 9.26) *n-akəna* *nenəngkwarba* *angkw+ababərna* *nə-mebi-na=ma*
 3M-that 3M.man time+many REAL.3M-sing-NPST=MUT
 ‘That man, he always sing’ [speaker translation]
 ‘That man always sings’ [author translation]
 (JL, JRB1-049-01, 00.18.52-00.19.03)

REALIS-V-PST and IRREALIS-V-PST inflectional marking both encode a past temporal reference point (but differ in expressing different modal properties), while the DEONTIC portmanteau series is incompatible with the PAST marker (*DEONTIC-V-PST).

NON-PAST can occur in combination with all three modal pronominal prefix series (REALIS/IRREALIS/DEONTIC-V-NPST). REALIS-V-NPST marking expresses a present temporal frame; IRREALIS-V-NPST a future temporal frame (and different possible modal readings), and DEONTIC-V-NPST expresses deontic modal readings (in which SitT occurs after UT).

See Chapter 6 for further discussion of the aspectuo-temporal semantics of REALIS-V-PST/NPST inflectional marking. IRREALIS/DEONTIC-V-PST/NPST inflectional marking is examined in §§9.4-9.5.

9.2.1.2.2 Phonologically Ø T/A marker

As discussed in §6.5, REALIS inflected verbs taking a Ø slot of the TAM inflectional paradigm (i.e. realised by the absence of a phonologically overt marker (=Ø TAM marker)) interacts with the Aktionsart/event structure of the verb, pragmatic reasoning and discourse relations, in order to express a range of T/A readings. REALIS-V-Ø inflected verbs temporally locate a situation either at or before the utterance time, with temporal interpretation inferred by Aktionsart/event structure and context. Stative situations take a present temporal interpretation, dynamic atomic events (=achievements) take a past temporal interpretation, and dynamic non-atomic events (=activities/accomplishments) are able to take either past or present temporal readings. Those dynamic events taking past temporal readings are also aspectually perfective (see §6.5 for further details).

IRREALIS/DEONTIC-V-Ø inflectional marking in main clauses indicates that the temporal anchoring occurs after the utterance time, as in (9.27) and (9.28).¹¹⁴

Verbs taking IRREALIS/DEONTIC-V-Ø inflectional marking tend to express perfective aspectual readings, inferred from the Aktionsart/event structure properties of the verb. Statives appear not to occur with IRREALIS/DEONTIC-V-Ø inflectional marking.

- 9.27) *yaw* *wurra-rrangka-Ø* *wurruwarda*
 yes DEON.2A-look.at-USP COLL.dog
na-murey-na=ma
 REAL.COLL-be.hungry-NPST=MUT
 ‘Look at the dog, it’s hungry!’ [author translation; Prompt: ‘Look at this dog! It looks like it’s hungry’]
 (JL, JRB1-045-01, 00.21.02-00.21.07)

¹¹⁴ IRREALIS -V-Ø marking behaves differently in complex clauses, where it can occur in past contexts as the consequent in conditional structures, and in purposive/volitional structures (involving the =*yedha* PURPOSIVE clitic or volitional verb -*ngiyendhe*- ‘want’. See Chapter 10 for further discussion.

- 9.28) *n-aka* *kəni-yakwabija-Ø* *ngalhangwa* *dh-adhə-m-ikirra*
 3M-this IRR.3M-forget-USP 3F.PRO.POSS 3F-F-INALP-name
 ‘He will forget her name completely’ [speaker translation]
 (JL, JRB1-085-01, 00:16:17-00:16:24)

9.2.1.2.3 The POTENTIAL TAM marker

The POTENTIAL occurs only with IRREALIS and DEONTIC marked verbs (i.e. it is disallowed in combination with the REALIS portmanteau prefix series). IRREALIS/DEONTIC-V-POT inflectional paradigms express a combination of aspectual and modal properties.

Aspectually, IRREALIS/DEONTIC-V-POT marking occurs only with perfective aspectual readings. It is disallowed with imperfective aspectual readings, which must instead be expressed by IRREALIS/DEONTIC-V-NPST inflectional marking, as demonstrated in (9.29) – (9.32).

- 9.29) **n-aka* *nenəngkwarba* *ken-angkarri-ya* *angkawura*
 3M-this 3M.man IRR.3M-run-POT all.the.time
 *‘This man will run all day/all the time’
 (JL, CW, fieldnotes, 21/11/2018)

- 9.30) *n-aka* *nenəngkwarba* *kən-angkarrə-na=ma* *angkawura*
 3M-this 3M.man IRR.3M-run-NPST=MUT all.the.time
 ‘This man will run all day/all the time’
 (JL, CW, fieldnotes, 21/11/2018)

- 9.31) *n-aka* *n-ərribərriba* *kənə-meb-mebi-ya* *angkawura*
 3M-this 3M-keep.on IRR.3M-REDUP-run-POT all.the.time
 *‘He will keep on running’
 (JL, CW, fieldnotes, 21/11/2018)

- 9.32) *n-aka* *n-ərribərriba* *kənə-meb-mebi-na=ma* *angkawura*
 3M-this 3M-keep.on IRR.3M-REDUP-run-NPST=MUT all.the.time

‘He will keep on running’

(JL, CW, fieldnotes, 21/11/2018)

IRREALIS/DEONTIC-V-POT marking is unselective for the type of modal it occurs with (occurring with circumstantial and epistemic modal bases, and a wide range of ordering sources), and rather it affects the force of the proposition expressed. It is used to lessen the modal force of a proposition, so that e.g. a prediction becomes a speculation, or a command becomes a request or weak(er) command. For example, compare example (9.33) and (9.35), marked with IRREALIS-V-NPST, expressing the future reading ‘when he comes’, to that of example (9.34) and (9.36), which is instead marked with IRREALIS-V-POT, expressing the epistemic possibility reading ‘might bite/ it’s possible that *x* will bite’.

Similar to Matthewson’s (2010: 29) description of the subjunctive in St’át’imcets (Lillooet Salish), the IRREALIS/DEONTIC-V-POT marking in Anindilyakwa ‘restricts the conversational background of a governing modal in such a way that the modal imparts a force no stronger than weak necessity’. This does not affect the truth conditions of a proposition, and rather than introducing any conversational backgrounds to the proposition, it merely forces a ‘weaker-than-necessary’ reading of the modal (Matthewson 2010: 34).

9.33) *dh-aka dhəngarrbiya kang-angə-na=ma*
FEM-this FEM.crocodile IRR.FEM>2-bite-NPST=MUT
‘She’ll bite you’ / ‘[s]he’s going to bite you’ [speaker translation]
(JL, JRB1-085-01, 00:05:47-00:05:52)

9.34) *Ø-lhəki-y angerriba dhəngarrbiya kang-angi-ya=ma*
DEON.2-go-POT to.over.there FEM.crocodile IRR.FEM>2-bite-POT=MUT
‘[Go over there, the crocodile] might bite you’ [speaker translation]
(JL, JRB1-085-01, 00:03:57-00:04:03)

9.35) *wurr-akən wurruwarda kab-angə-na=ma*
COLL-that COLL.dog IRR.FEM>2-bite-NPST=MUT
‘They will bite you’ [speaker translation]
(JL, JRB1-085-01, 00:11:15-00:11:26)

- 9.36) *James, wurr-akəna wurrwarda kab-angi-ya=ma*
 James COLL-that COLL.dog IRR.FEM>2-bite-POT=MUT
 ‘That dog might bite you’ [speaker translation]
 (JL, JRB1-085-01, 00:10:56-00:11:10)

IRREALIS/DEONTIC-V-POT marking does not occur with the PURPOSIVE clitic, given that the intentionality expressed by the PURPOSIVE is not compatible with the POTENTIAL (which can express only possibility or weak necessity). The POTENTIAL also does not occur with negative polarity (which in such non-past contexts is instead expressed with the NEGATIVE NON-PAST circumfix, see §9.6.2).

The semantics of the IRREALIS/DEONTIC-V-POT marking is examined throughout §§9.4-5.

9.2.1.3 *Modal type and force of Anindilyakwa inflectional modals*

As was mentioned in §9.1, languages differ with respect to the degree in which the quantificational force and the modal base and their ordering sources are determined by the conversational context (Cable 2017: 622). While in many European languages, including English, modals have specified modal force, but context-dependent modal bases; modals in languages such as St’át’imcets (Salish, Canada) demonstrate a different system, in which it is the modal base that is lexically fixed, and the modal force that is provided by context (Matthewson et al 2007; Matthewson 2011; Rullman et al 2008; Davis et al 2009). In St’át’imcets the modal particle *k’a*, for example, always has an epistemic base, but can occur as both a strong or weak epistemic modal, dependent on the context (Rullmann et al 2008). Therefore, a satisfactory semantic description of a modal must consider both its force and its conversational background (modal base and ordering source) (Cable 2017: 623).

This chapter examines the different modal forces and types of the inflectional modal system of Anindilyakwa; comparing particularly IRREALIS-V-NPST/Ø, DEONTIC-V-NPST/Ø and IRREALIS/DEONTIC-V-POT inflectional marking. I demonstrate that IRREALIS-V-NPST/Ø is underspecified both for modal force and modal type, occurring with both epistemic and circumstantial modal bases, and a range of different ordering sources, while DEONTIC-V-NPST/Ø is underspecified for modal force but restricted to a circumstantial modal base and deontic ordering source. The inverse is true for IRREALIS/DEONTIC-V-POT inflectional marking, being unselective for the type of modality it expresses, but restricted with respect to the modal

force it encodes. The force and type of modality these inflectional markers are capable of expressing are summarised in Table 9.5, and explored further in §§9.4-5.

	Specified modality type (modal base+ordering source)	Underspecified modality type (modal base+ordering source)
Specified modal force		IRREALIS/DEONTIC-V-POT
Underspecified modal force	DEONTIC-V-NPST/Ø	IRREALIS-V-NPST/Ø

Table 9.5 Classification of modal types and force in Anindilyakwa (classification system based on Rullmann et al 2008)

9.3 The REALIS paradigm

REALIS-V-PST/NPST/Ø inflectional marking is used to express non-future (past and present) temporal readings, involved in expressing factual or actualised contexts. As mentioned in §9.2.1.1.1, Anindilyakwa has quite a ‘well-behaved’ realis/irrealis distinction in this respect, where REALIS inflectional paradigms are involved in expressing situations that are actually occurring, or have actually occurred, while IRREALIS paradigms, in contrast, expresses a wide range of non-factual modal meanings (see §9.2.1.1.1). The REALIS portmanteau prefix series can occur only in combination with the PAST, NON-PAST and Ø TAM suffixes, and is incompatible in combination with the modal POTENTIAL TAM suffix. REALIS-V-PST/NPST/Ø inflectional marking and associated aspectuo-temporal expression is examined in Chapter 6.

While REALIS-inflected verbs cannot combine with other inflectional modal affixes or clitics, they can be modified by modal particles (e.g. the particle *dhukwa* ‘maybe’), in order to express modal meanings (i.e. modal particles scope over the verb in order to express modal readings; see Appendix B for an overview).

First-person marked DEONTIC portmanteau prefixes exhibit syncretism with the REALIS prefix series, and thus the hortative readings these markers express is examined along with the rest of the DEONTIC prefix series in §9.5.¹¹⁵

While REALIS-V-PST/NPST/Ø inflectional marking cannot be used to express non-factual or non-actualised situations (without the interaction of a modal particle, scoping above the

¹¹⁵ I.e. rather than treating these as modal readings of the first-person REALIS paradigm. The rationale behind this analysis is discussed further in §9.5

verb, such as the particle *dhukwa* ‘maybe’), occasionally REALIS-V-PST/NPST/Ø inflected verbs can be interpreted as conveying some kind of pragmatically inferred assertion, as in examples (9.37) – (9.40).

- 9.37) *Patrick n-aka nə-kadhe-na=ma*
 Patrick 3M-this REAL.3M-lie-NPST=MUT
 ‘He must be telling lies’ [author translation; prompt: ‘He must be telling lies’]
 (JL, JRB1-049-01, 00:56:11.910-00:56:14.683)
- 9.38) *n-akəna James=a n-alyba-rnə=ma akəna amadhangkwa*
 3M-that James=PF REAL.3M-eat-PST=MUT NEUT.that NEUT.meat
 ‘James had to eat the meat’ [author translation; prompt: ‘Imagine a situation where James was forced to eat some meat, because it was the only food, how could you say James had to eat that meat’]
 (JL, JRB1-042-01, 00:32:45-00:32:54)
- 9.39) *na ny-ibin yalakwa əmba nə-lhəka-rn*
 NEG 3M-that.same here but REAL.3M-go-PST
arakba
 COMPL.ACT
 ‘He might not be here, he might have gone already’ [author translation; prompt: ‘You don’t know whether he’s still here or not. he might have gone’]
 (JL, JRB1-042-01, 00:03:36-00:03:41)
- 9.40) *aməndha nu-mərey-na=m n-aka*
 truly REAL.3M-be.hungry-NPST=MUT 3M-this
 ‘I think James is hungry, I’m sure he’s hungry’ [speaker translation; prompt: ‘He must be hungry’]
 (JL, JRB1-049-01, 00:56:56.397-00:57:33.555)

The rest of this chapter focuses on IRREALIS-V-PST/NPST/Ø/POT and DEONTIC-V-/NPST/Ø/POT inflectional marking. See Chapter 6 for further discussion of REALIS-V-PST/NPST/Ø marking.

9.4 The IRREALIS paradigm

IRREALIS-V-PST/NPST/Ø/POT inflectional marking has a wide range of modal readings, which are frequently encountered with irrealis categories cross-linguistically. The Anindilyakwa IRREALIS inflectional paradigm is involved in future temporal reference and a complex cluster of modal readings including epistemic, deontic and dynamic modality, covering both open (potential future events) and foreclosed (e.g. counterfactual) possibilities. The marker is compatible with both necessity and possibility readings, being underspecified for modal force. In addition, the IRREALIS portmanteau prefix is also obligatory in the marking of negative past situations (and in restricted contexts in the marking of negative non-past situations).

- Open possibilities (IRREALIS-V-NPST/Ø/POT):
 - i. future (including imminent future), epistemic possibility and necessity, deontic possibility and necessity, dynamic modality, open conditionals
- Foreclosed possibilities (IRREALIS-V-PAST):
 - i. past conditional counterfactuals, foreclosed epistemic counterfactuals, foreclosed deontic counterfactuals, foreclosed intentional counterfactuals
- Negated events (NEG particle + IRREALIS-V-PST/NPST):
 - i. Past: negated proposed content (both factual and non-factual readings)
 - ii. Non-past: factual (habitual) readings (see §9.6))

As can be observed from the modal readings listed above, the IRREALIS portmanteau prefix can occur in combination with all four TAM suffixes; IRREALIS-V-PST marking expresses foreclosed counterfactual past readings, and negative past situations; IRREALIS-V-NPST/POT marking expresses situations that are to occur in future temporal situations or modal situations accessible from the time of speech and the actual world, and IRREALIS-V-Ø marking in main clauses expresses future temporal anchoring, but in a complex clauses (e.g. conditional clauses) the temporal interpretation is inferred through phonologically overt inflectional TAM marking on the main clause (e.g. IRREALIS-V-Ø can express past temporal reference when combined with a IRREALIS-V-PST marked clause).

In this chapter, I examine IRREALIS-V-PST/NPST/Ø/POT inflectional marking only in the context of main clauses (i.e. not concerned with the interaction of inflectional verbal TAM marking with clitics, particles, adverbs or complex clause structures, such as conditionals).

Complex modal readings involving other modal elements are discussed in Chapter 10, or else are briefly outlined in Appendix B.¹¹⁶

9.4.1 *Open possibilities: IRREALIS-V-NPST/Ø/POT*

IRREALIS-V-NPST/Ø/POT inflectional marking is used to express situations occurring after the time of speech.

IRREALIS-V-NPST is the most widespread and broadest category semantically, covering future temporal reference, and modal readings involving both epistemic and circumstantial modal bases, involving various ordering sources, and variable modal strength. IRREALIS-V-Ø/POT suffix is more restricted, expressing mainly future and epistemic modal meanings (although a very small number of examples have also been found expressing deontic readings). This inflectional marking and their modal readings are displayed in Table 9.6.

Inflectional affixs	Modal meaning
IRREALIS-V-NPST	Future; Epistemic modality (possibility, necessity); Deontic modality (possibility, weak necessity, necessity); Dynamic modality (abilitative)
IRREALIS-V-Ø	Future; Epistemic modality (possibility, weak necessity)
IRREALIS-V-POT	Future; Epistemic modality (possibility, weak necessity)

Table 9.6 Open possibility IRREALIS readings

¹¹⁶ Conditional constructions (including possible future, future-less-vivid and counterfactual conditionals; intentional constructions expressing bouletic modal, frustrative, proximative and nearly avertive readings in combination with the =PURPOSIVE clitic =*yedha*; intentionality and volition in combination with verb -*ngiyendhe* ‘want’; and apprehension, involving the =EVITATIVE clitic =*maka*, are examined in Chapter 10. Epistemic readings involving modal particles (e.g. *dhukwa* ‘maybe’, *amandangwa* ‘truly’) and proximative/near-completive readings in combination with adverbials (e.g. temporal *adhənuba* ‘in.short.time’; spatial adverbial *akwudangwa* ‘near’) are overviewed in Appendix B. Dynamic modality expressed through predicative adjectives *akakarəma* ‘know’; *ekikamarra* ‘not know’ are outlined in §3.2.2.4.

Future temporal frames (inertia worlds)

While past and present situations are expressed through REALIS-V-NPST/PST/Ø inflectional marking, IRREALIS-V-NPST/Ø/POT can be used to express future temporal reference. The treatment of future tenses has been an important issue of discussion in the interface between modality and tense (Cover 2010: 50). While logical treatments of tense have assumed it to be exactly parallel to past tense (cf. Reichenbach 1947, Prior 1957/67, Montague 1973), many authors have suggested that the future has partly (or primarily) modal semantics, and some have argued that it is not a tense at all (Cover 2010: 50). The claim that the future expresses modality in addition to, or instead of, tense is supported by a number of observations, such as the fact that diachronically futurate uses originate from modal uses expressing desire or willingness (Bybee & Dahl 1989: 63) (Cover 2010: 50).

The interaction between future tense and modality is particularly relevant in the case of Anindilyakwa, which doesn't have an unambiguous future marker in the inflectional TAM system. Rather, IRREALIS-V-NPST/Ø/POT inflectional marking is used to indicate future time reference, in addition to expressing many other modal meanings.

IRREALIS-V-NPST inflectional marking is the most frequently occurring inflectional marking used to express future events (that are expected, by the speaker, to come to fruition), as in (9.41) and (9.42).

- 9.41) *ngarna ak-aburrangey-na=ma arnungkwaya*
 12A.this IRR.12A-meet-NPST=MUT tomorrow
 'We will meet tomorrow' [author translation; prompt: 'We will meet tomorrow']
 (JL, JRB1-044-01, 00:10:18-00:10:25)

- 9.42) *nganyangwa nabə-rraka kəni-yedhe-na=ma adhənuba*
 1.PRO.POSS 3M.son-1.KIN IRR.3M-arrive-NPST=MUT in.short.time
 'My son will arrive soon' [author translation; prompt: 'My son will arrive soon']
 (JL, JRB1-044-01, 00:11:37-00:11:44)

In combination with atomic telic predicates, IRREALIS-V-NPST marking can express imminence, indicating an event that is about to occur after the time of speech, as demonstrated in example (9.43) with the verb *-jungu-* ‘die’.

- 9.43) *n-akəna nenəngkwarba kəni-jungu-na=ma*
 3M-that 3M.man IRR.3M-die-NPST=MUT
 ‘[The man is] just about to die’ [speaker translation]
 (JL, JRB1-049-01, 00.47.37-00.47.52)

In order to explicitly express imminence, constructions involving the PURPOSIVE clitic =*yedha* may be employed (see §10.2.1). Imminent future readings are also frequently (unambiguously) expressed in combination with the adverbials *akwədhangwa* ‘near’ (example (9.42)), and *adhənuba* ‘in.short.time’. See Appendix B.

- 9.44) *akwədhangwa ka-lharrəmərđhə-na=ma*
 near IRR.NEUT-darkness-NPST=MUT
 ‘It’s nearly dark’ [source translation]
 (Leeding 1989: 454)

Epistemic possibility and necessity

Epistemic modality is concerned with a speaker’s attitude to the truth-value or factual status of a proposition (Palmer 2001: 24). According to Kratzer’s (1981; 1991; 2012) theory of modality, epistemic modality has an epistemic modal base, and an ordering source related to information (e.g. what the normal course of events is like; reports, beliefs, rumours, etc.).

Epistemic modality is expressed primarily in Anindilyakwa by means of IRREALIS-V-NPST inflectional marking. While epistemic modality can be expressed exclusively by inflectional verbal marking, the modal particle *dhukwa* ‘maybe’ is another salient modal marker of language, frequently involved in the expression of epistemic possibility, in particular. This particle often occurs in combination with IRREALIS-V-PST/NPST/Ø/POT inflectional marking, but can also occur with REALIS-V-PST/NPST/Ø inflected verbs to express epistemic modality (see Appendix B; the rest of this chapter concerns only IRREALIS-V-PST/NPST/Ø/POT (i.e. not REALIS-V-PST/NPST/Ø) inflectional marking).

The Anindilyakwa IRREALIS-V-NPST marking has variable modal force (different from, e.g. typical Indo-European modals which lexically encode distinctions of quantificational force (Matthewson 2010: 2)), and thus covers a range from possibility to necessity modals. This is displayed in (9.45) – (9.47), where (9.45) and (9.46) express epistemic possibility, and (9.47) epistemic necessity.

- 9.45) *nəra=kə n-akən e-yedhə-m ambaka əmba*
 NEG=EMPH 3M-that NEG.NPST-arrive- NEG.NPST later but
amiyerra kən-ambilya=m yakwujin mijiyely=manja
 long.time IRR.3M-stay.NPST=MUT there VEG.beach=LOC
 ‘He might not get there later, but he might still be there at the beach’ [author translation; Scenario: You’re thinking, hmm, maybe not, maybe it’s not certain that James will be early]
 (JL, JRB1-042-01, 00:21:29-00:21:35)

- 9.46) *warna wurruwarda kuw-alyaba-rna=manja anhanga nəngk-ena*
 COLL.this COLL.dog IRR.COLL-eat-NPST=LOC NEUT.food 2-this
k-angbilyuwa-dhə-na=ma
 IRR.2-sick-INCH-NPST=MUT
 ‘If this dog eats this food, you might get sick’ [author translation; Prompt: ‘Don’t eat this food! it might make you sick’]
 (JL, JRB1-044-01, 00:24:00-00:24:09)

- 9.47) *amiyerra ambak mema kəmə-dhadhə-na=ma*
 long.time later VEG.this IRR.VEG-become.cooked-NPST=MUT
 ‘It’ll take a while to cook these yams’ [author translation; prompt: It’ll definitely take a while to cook these yams]
 (JL, JRB1-049-01, 00:54:11.494 - 00:54:14.069)

Ability and capacity

Here we are interested in those modals involving a circumstantial modal base and, generally, an empty ordering source. These dynamic modal readings are characterised as expressing

particularly ability and capacity (Palmer 2001). Goosens (1985) further states that it ascribes ‘the capacity or ability to the first-argument (or controlling) participant (usually the agent participant) of the verb to realise or effectuate the state of affairs expressed in the clause’ (Goosens 1985, in Nuyts 2016: 34). This ability modal may refer to either an agent’s internal (intellectual or mental ability) or physical capacities (pertaining to strength or health, for instance), or to facts about the world external to the agent (Cover 2010: 241).

IRREALIS-V-NPST inflectional marking is used to express pure circumstantial readings, as demonstrated in examples (9.48) and (9.49).

- 9.48) *akwa ebina a-dhə-dhərrungwarna angwalha,*
 and NEUT.that.same NEUT-REDUP-big NEUT.mud.crab
akəna a-kw-aly-elyəbara, ak-alyəbarə-na=ma
 NEUT.that NEUT-NSR-REDUP-eat IRR.12A-eat-NPST=MUT
 ‘And those big mud crabs, they are edible, we can eat them’ [source translation]
 (van Egmond 2012: 222)

- 9.49) *n-aka nenəngkwarba kənəmə-kwarrə-na=ma muwarukwa*
 3M-this 3M.man IRR.3M>VEG-break-NPST=MUT VEG.fishing.line
 ‘The man can break the fishing line’ [prompt: so if I say, hey Judy, this strong
 man here, can he break fishing line? is he able to do that?]
 (JL, JRB1-085-01, 00:19:05-00:19:14)

In addition to the use of inflectional TAM marking, modals involving dynamic modal readings can be expressed overtly by a number of other constructions; namely with cognition adjectives that express lack of knowledge, which can also convey notions of ability or lack of ability. The use of the adjective *akakərəma* ‘know’, in combination with IRREALIS-V-NPST marked verbs is shown in example (9.50), and the adjective *kamərri* ‘not know’ in example (9.51). Additionally, the verb *-kambadhə-* ‘feel upset for being unable to do something’ can be used in order to express inability, as in example (9.52).

- 9.50) *kirr-akəna kirr-akakiruma arakba adhənakba-kiya ebina*
 2A-that 2A-know COMPL.ACT.already-two NEUT.that.same
adhirrariyaba ke-kalarə-dhə-na=manja angalya akwa

suddenly IRR.NEUT-burn.off-INCH-NPST=LOC NEUT.place and
adhirrariyaba yik-angbilyuwa-dhə-na=manja kembirra waranjibawiya
suddenly IRR.2A-sick-INCH-NPST=LOC then quickly
yiku-mamərikaje-yi-na=yedha warəka
IRR.2A>NEUT-help-RECIP-NPST=PURP NEUT.work
yiku-warde-na=mərra=manja
IRR.2A-work-NPST=DEP=LOC
‘Make sure you know what to do in an emergency at your work area’
(ALC Induction Policy: 8)

9.51) *n-aka Patrick*
3M-this Patrick
nə-kambadhə-na=ma
3M-feel.upset.for.being.unable.to.do.something-NPST=MUT
e-yambu-ma amamalya ayakwa
NEG.NPST-speak-NEG.NPST NEUT.true NEUT.language
‘But Patrick can’t speak Anindilyakwa language’ [author translation; Prompt:
‘Patrick cannot speak Anindilyakwa’]
(JL, JRB1-042-01, 00:26:11-00:26:23)

9.52) *əmba Patrick=a nə-kamarra e-ngekburaka-ma*
but Patrick=PF 3M-not.know NEG.NPST-make-NEG.NPST
a-rmd-əkena akiyembiyemba
NEUT-many-that NEUT.recorder
‘Patrick can’t fix the recorder’ [author translation; prompt: ‘and Patrick cannot fix
this recorder’]
(JL, JRB1-042-01, 00:28:45-00:28:55)

Deontic readings

Deontic modality is concerned with concepts of permission and obligation. It is related to directives ‘where we try to get others to do things’ (Searle 1983: 166).

Similar to the dynamic readings expressed by the IRREALIS-V-NPST, the expression of deontic modal meanings can involve the IRREALIS paradigm, expressed through IRREALIS-V-NPST marking. As with the epistemic readings overviewed above, IRREALIS-V-NPST marking also has variable modal force in terms of deontic readings, with both deontic possibility and necessity able to be expressed. This is demonstrated below with examples showing deontic possibility ((9.53) and (9.54)), deontic weak necessity ((9.55) and (9.56)) and deontic necessity (9.57).

9.53) *yikəngə-lhərrakə-ngaji-na=ma*

IRR.2F.DU>NEUT-DU-hit-NPST=MUT

‘You two women can kill the two [fish(NEUT)]’ [source translation]

(Leeding 1989: 424; van Egmond 2012: 158)

9.54) *ku-bekə-n akən akungwa ki-yakwurra-na=manja*

IRR.2-drink-NPST NEUT.that NEUT.water IRR.2-be.thirsty-NPST=LOC

‘Drink that water if you are thirsty’ [author translation]

(JL, JRB1-045-01, 00.32.13-00.32.17)

9.55) *kemba kə-lhəka-ja=ma nəngk-ena m-ardədarra=manja*

then IRR.2-go-NPST=MUT 2-this VEG-hot=LOC

kə-karri-jungu-na=ma m-ardədarra=manja

IRR.2-roast.in.ashes-REFL-NPST=MUT VEG-hot=LOC

‘Then you should go in the hot [sun(VEG)] and roast yourself in the hot [sand(VEG)]’ [source translation]

(NJ, A337a Side1, a5.22 Yininya-langwa ‘About bristle worms’)

9.56) *Renato=a kən-angə-na=ma*

Renato=PF IRR.3M>NEUT-bite-NPST=MUT

‘Renato should bite it’ [author translation]

(ST, JRB1-057-01, 00.02.01-00.02.06)

- 9.57) *nara nāngk-arn ngəwa kə-lhukwe-na alhəkwanja*
 NEG 2-this continue IRR.2-dance-NPST NEUT.dance
 ‘No, you must dance James!’ [author translation]
 (JL, JRB1-049-01, 00:50:57.569-00:51:00.569)

IRREALIS-V-NPST/Ø/POT marked verbs expressing statements with deontic modality can be used as directives. For example, compare examples (9.53) – (9.57) expressing deontic modality, with the imperative speech act in (9.58) (also marked with IRREALIS-V-NPST). These kinds of directives occur more frequently with the DEONTIC paradigm (see §9.5), however the use of the IRREALIS paradigm in these contexts is not infrequent. This is discussed further in §9.5.3.

- 9.58) *when I talk to Renato when he's naughty I say, Renato*
Renato
k-engkərrə-ja, dhərndhenu=wa
 IRR.2-listen-NPST 3F.mother=ALL
 ‘Renato, listen to your mother!’ [speaker translation]
 (ST, JRB1-054-01, 00.27.51-00.28.02)

9.4.1.2 IRREALIS-V-Ø

IRREALIS-V-NPST marking is by far the most common inflectional marking for expressing non-‘actualised’ situations, across all of the modal readings expressed through verbal inflectional marking. IRREALIS-V-Ø, by comparison, occurs much less frequently. Indeed, if we compare REALIS-V-NPST with REALIS-V-Ø marking, while REALIS-V-NPST occurs more frequently in the corpora, the skewed distribution of IRREALIS-V-NPST vs. IRREALIS-V-Ø marking is much more apparent.

IRREALIS-V-Ø marking is almost exclusively used to express future temporal frames, of which the speaker assumes will come to pass. Rarely this inflectional marking can be used to express epistemic readings.

Future temporal frames (inertia worlds)

While the temporal anchoring of REALIS-V-Ø inflected verbs are determined by Aktionsart/event structure aspect properties, pragmatic reasoning and discourse relations¹¹⁷, the temporal properties of IRREALIS-V-Ø inflected verbs are not triggered by these same lexical aspectual properties. Rather, for all IRREALIS-V-Ø inflected verbs in main clauses¹¹⁸ the time of situation occurs after the utterance time, as in (9.59) and (9.60).

- 9.59) *n-akəna* *James-a* *kenə-kwierrbu-Ø=ma* *y-akəna*
3M-that James=PF IRR.3M>MASC-miss-Ø=MUT MASC-that
yimendha
MASC.turtle
‘James will miss the turtle’ [speaker translation]
(ST, JRB1-051-01, 00.32.42-00.32.51)

- 9.60) *n-aka* *nenəngkwarba* *kənəma-kwarru-Ø=ma* *muwarukwa*
3M-this 3M.man IRR.3M>VEG-break-USP=MUT VEG.fishing.line
‘He will break that fishing line’ [speaker translation]
(JL, JRB1-085-01, 00:19:18-00:19:45)

Epistemic readings

IRREALIS-V-Ø inflectional marking can (infrequently) express epistemic readings, as in (9.61).

- 9.61) *dhuk* *kungə-lhəke-Ø* *dh-an* *angkurranga* *dh-akəna* *Sylvia*
maybe IRR.3F-go-USP 3F-this to.here 3F-that Sylvia
dhukwa *na* *dh-akan* *angburranga* *a-lhəka-m*
maybe NEG 3F-that to.here NEG.NPST-go-NEG.NPST
arak *mena* *a-warnk-ambiyerr=bəb* *arakba* *dhadhə*

¹¹⁷i.e. stative verbs trigger a present interpretation; verbs describing atomic telic events a past interpretation; and verbs describing either atelic dynamic events or non-atomic telic events (i.e. activities and accomplishments) are capable of both past and present readings (see §6.5.3).

¹¹⁸ IRREALIS-V-Ø inflected verbs in complex clauses can take both future and past temporal readings, depending on the overt temporal marking of neighbouring clauses and contextual factors. This is discussed further in §10.1.

COMPL.ACT because NEUT-DIM-long.time=REAS COMPL.ACT ??
kə-luka-Ø=lang kurranga dhukwa kəng-ambily yakwudhnya
 IRR.3F(?)=go-USP=ABL to.here maybe IRR.3F-stay.NPST to.here
angaly=manja
 NEUT.place=LOC
 ‘Maybe Sylvia will come here later, maybe she won’t, because it’ll take her a long
 to get here to this place’ [author translation]
 (JL, JRB1-042-01, 00:18:53-00:19:11)

Abilitative/capacitive and deontic readings

IRREALIS-V-Ø marking has not been found with any examples of abilitative/capcitative modal readings, and attempts to elicit such readings were rejected by speakers; IRREALIS-V-NPST appears to be used exclusively to express these modal readings.

Likewise, IRREALIS-V-Ø marking appears not to occur with the expression of deontic readings. Examples that could potentially express deontic readings, such as examples (9.62) and (9.63) appear, after investigation, to not be true deontic readings, but rather expressing future temporal frames for situations the speaker assumes will eventuate (i.e. ‘we’re going to go down, in order to mix up their language’ (9.62); ‘I’m going to try to touch you’ (9.63) (rather than the deontic-like English translations that were provided in the source material)).

- 9.62) *biya n-akəna Yaweya ni-yama-Ø ngarningka*
 and.then 3M-that Yaweya REAL.3M-say-PST again
 “*ngakwurruwa kembirra akə-lhəka-ja=mərra arakba ngarna*
 12a.PRO then IRR.12A-go-NPST=MUT COMPL.ACT 12A.DEM
akə-dhirrirnda-Ø=ma aka-mənə-kuwarrukwaji-ni=yedha ayakwa
 IRR.12A-descend-USP=MUT IRR.12A-BENE-change-NPST=PURP NEUT.language
abərra=langwa”
 3A.PRO=POSS
 ‘Let us go down and mix up their language’ [source translation]
 (Bible Society in Australia 1992: 71)

- 9.63) *kureya ka-lyinga-Ø=lhangwa*
 try IRR.1>2-touch-USP=ABL
 ‘Let me touch you’ [source translation]
 (Bible Society in Australia 1992: 213)

9.4.1.2 IRREALIS-V-POT

Prediction modals, and epistemic modal readings

While IRREALIS-V-NPST/Ø can express future situations predicted as certain to occur by the speaker (as in examples (9.41), (9.42), (9.59) and (9.60)), IRREALIS-V-POT inflectional marking cannot occur in these circumstances. Rather, IRREALIS-V-POT marking is used only to indicate situations in which the situation time occurs after the utterance time, but for which there is some perceived element of doubt with respect to their occurrence, as in (9.64).

- 9.64) *n-aka nenəngkwarba kənə-makwarri-ya=ma muwarukwa*
 3M-this 3M.man IRR.3M>VEG-break-POT=MUT VEG.fishing.line
 ‘That man will break the fishing line’ [speaker translation] [i.e. it’s possible that
 the man will break the fishing line]
 (JL, JRB1-085-01, 00:017:46-00:17:54)

IRREALIS-V-POT marking does not affect the truth conditions of a proposition, but merely conveys a force no stronger than weak necessity by restricting the conversational background of the modal (cf. Matthewson 2010) (e.g 9.65).

- 9.65) *wurr-akəna wurruwarda kab-angi-ya=ma*
 COLL-that COLL.dog IRR.COLL>1-bite-POT=MUT
 ‘The dog might bite me’ [speaker translation]
 (ST, JRB1-054-01, 00.06.03-00.06.14)

Thus, IRREALIS-V-POT marking does not occur in clauses expressing future events that have a high degree of certainty to occur, as in the first clause of (9.66) (marked with IRREALIS-V-NPST). In this example, however, the second clause is marked with IRREALIS-V-POT, given that its actualisation is less certain, and is dependent on the eventuality of the preceding clause. (i.e.

the event of ‘hearing’ (marked with IRREALIS-V-POT) is dependent on the occurrence of the event of ‘crying’ (marked with IRREALIS-V-NPST); ‘he will keep on crying out, and [it’s possible that] I will hear him’).

- 9.66) *biya kənu-wardu-wardemi-na n-akəna, nganja*
 and.then IRR.3M-REDUP-cry.out-NPST 3M-that 1.PRO.CofR
k-engkərrəki-ya kamba=dha
 IRR.1-hear-POT then=TRM
 ‘He will keep on crying out, and then I will hear [him]’ [source translation]
 (van Egmond 2012: 200)

Deontic readings

IRREALIS-V-Ø marking, as with IRREALIS-V-POT marking, is not found with any examples of pure circumstantial modal readings; IRREALIS-V-NPST is used to express these modal readings.

IRREALIS-V-POT marking occurs very infrequently with deontic readings, and only with weak commands and requests. For instance, in (9.67) IRREALIS-V-POT expresses a polite request, occurring in combination with the ABLATIVE =*lhangwa* (which can occur as a marker of politeness).

- 9.67) *ngayamba=lhangwa yiba-lyang+barri-ya=lhangwa*
 1.PRO=ABL IRR.1>2-head+hit-POT=ABL
arəngka=manja
 NEUT.head=LOC
 ‘In my turn, let me hit you on the head’ [source translation]
 ‘Let me hit you on your head’ [speaker translation] (JL, JRB1-085-01,
 00:35:47-00:36:01)
 (van Egmond 2012: 224)

9.4.1.4 *Compatibility with apprehensive readings*

IRREALIS-V-NPST/Ø/POT marking is compatible with apprehensive contexts, expressing a potential (but undesirable) event. Such utterances are often preceded by a precautionary clause, providing information regarding potential preventative action (such as an admonitory speech

act (e.g. ‘don’t’ *P*, ‘watch out!’), as in (9.69) – (9.71)) or a fear predicate (e.g. *-akbadhe-* ‘be.afraid’, as in (9.68)). However, IRREALIS-V-NPST marking (without additional marking) does not explicitly express apprehension. In order to overtly express apprehension, the *=maka* EVITATIVE clitic is employed. See §10.3 for further discussion.

- 9.68) *ngayuwa ngə-mjərrk-akbadhe-na=ma n-akəna James=a*
 1.PRO REAL.1-body-be.afraid-NPST=MUT 3M-that James=PF
kənə-lhəki-ya=ma adhəlyuma ak ngəwa
 IRR.3M-go-POT=MUT NEUT.river and continue
kənənga-mi-ya-m=dha dhədharrəngka akwa
 IRR.3M>3F-take-POT=TRM 3F.woman and

kənənga-yakə-rna

IRR.3M>3F-take.away-NPST

‘I’m afraid that James might go to the river and grab the woman’ [author translation]

(JL, JRB1-072-01, 00:39:09.444-00:39:27.109)

- 9.69) *yama=lhangwa! n-ak nenəngkwarba kənə-wənyamba-dhu-Ø=ma*
 watch.out=ABL 3M-that 3M.man **IRR.3M-angry-INCH-USP=MUT**

‘Watch out! The man might become angry!’ [author translation]

(JL, JRB1-044-01, 00:23:34-00:23:39)

- 9.70) *yama! dh-ak dhəngarrbiya kang-angi-ya=ma*
 watch.out FEM-that FEM.crocodile **IRR.FEM-bite-POT=MUT**

‘Watch out! The crocodile might bite you!’ [author translation]

(JL, JRB1-044-01, 00:23:14-00:23:21)

- 9.71) *yama! dh-ak dhəngarrbiya kang-angi-ya=ma*
 watch.out FEM-that FEM **IRR.FEM-bite-POT=MUT**

‘Watch out! The man might become angry!’ [author translation; Scenario: Watch out! This man might become angry]

(JL, JRB1-044-01, 00:23:34-00:23:39)

9.4.2 Foreclosed possibilities: IRREALIS-V-PST

IRREALIS-V-PST inflectional marking occurs in order to express past counterfactual readings (i.e. constructions that express situations that are contrary to fact). These can include main clause counterfactuals (e.g. (9.72)) expressing past deontic and epistemic modal readings (summarised in Table 9.7), as well as counterfactual conditionals (e.g. (9.73)).

- 9.72) *nungkwa kə-lhəke-nə=ma*
 2.PRO IRR.2-go-PST=MUT
 ‘You should have gone’ [speaker translation]
 (JL, JRB1-060-02, 00.17.46-00.17.50)

- 9.73) *kəng-eburra-nə=m ngəwa amiyerra dh-akəna dhədharrəngka*
 IRR.3F-wait-PST=MUT continue long.time 3M-that 3M.woman
kəng-warda-ngə=ma
 IRR.3F>3M-hit-PST=MUT
 ‘If he waited for a long time, that girl would’ve killed him’ [author translation;
 Prompt: ‘If he waited, that girl would kill him’]
 (JL, JRB1-044-01, 00:29:53-00:30:01)

Inflectional affix		Modal meaning
Prefix	Suffix	
IRR-	-PST	Epistemic modal base; empty ordering source/ stereotypical ordering source; Circumstantial modal base; deontic ordering source (deontic counterfactual/counterfactual obligation)

Table 9.7 Foreclosed possibility IRREALIS-V-PST marking

Counterfactual conditional structures involve obligatory IRREALIS-V-PST inflectional marking (i.e. IRREALIS-V-Ø inflectional marking is disallowed). Antecedent and consequent clauses of counterfactual conditionals can be simply juxtaposed alongside one another, as in (9.77), however more frequently these structures (as with all conditionals) employ additional

morphological marking, in particular employing the t-complementising function of the =*manja* LOCATIVE clitic (e.g. (9.74)).

For further discussion of the structure and semantics of conditionals (including counterfactual conditionals) see Chapter 10; the remainder of this section examines only main clause structures involving inflectional (i.e. IRREALIS-V-PST) marking.

- 9.74) *kən-eburrarə-nə=manja* *n-akəna* *nenəngkwarba*
 IRR.3M-wait-PST=LOC 3M-that 3M.man
*kenu-warda-ng=maka*¹¹⁹
 IRR.3M>3M-hit-PST=EVIT
 ‘If he waited, that man would kill him/would’ve killed him’ [author translation]
 (JL, JRB1-044-01, 00:29:43-00:29:51)

In main clauses, IRREALIS-V-PST inflectional marking can arise from a circumstantial modal base and a deontic ordering source (9.75), or from an epistemic modal base with no ordering source (9.76) or a stereotypical ordering source (where the highest-ranked worlds are those in which the expected course of events is followed, given the known facts) (Kroeger 2017: 15) (9.77). Typically frustrative IRREALIS-V-PST inflected verbs are followed by a component of polarity-reversal (i.e. indicating that the in the end did not occur) (Verstraete 2006: 211).

- 9.75) *akəna=lhangwa en-eja* *n-enəngə-karrawara*
 NEUT.that=ABL 3M.PRO-CofR 3M-M.ALP-above
kən-awinyamba-dhə-nə=ma *n-akəna* *ngakwurrūwa=wa*
 IRR.3M-angry-INCH-PST=MUT 3M-that 12A.PRO=ALL
ngarrababuma=lhangwə=wa *ngamumamalya*
 ??=POSS=ALL 12A.people
 ‘Because of that, God should have been angry with all of us [but he had pity on us]’ [source translation]
 (Bible Society in Australia 1992: 905)

¹¹⁹ The EVITATIVE =*maka* clitic frequently occurs in counterfactual conditionals. See §10.3 for further discussion.

9.76) *en-eja n-aka Patrick kənəmə-kwarre-nə=dh mema*
 3M-CofR 3M-this Patrick IRR.3M>VEG-break-PST=TRM VEG.this
muwarukwa ekena nara n-ibina yelakwa
 VEG.fishing.line but NEG 3M-that.same here
 ‘Patrick could’ve broken the fishing line, but he’s not here [i.e. had Patrick been here, he could have broken the fishing line, but alas he’s not]’ [author translation]
 (JL, JRB1-042-01, 00:31:02-00:31:13)

9.77) *n-akən kən-alybə-rnə=dh akəna anhang-mərriyak*
 3M-that IRR.3M>NEUT-eat-PST=TRM NEUT.that NEUT.food-the.rest
anhanga akena en=lhangwa dhərndiy-əniba
 NEUT.food however 3M.PRO=POSS 3F.mother-3M.KIN
yingə-nə-mərraka-ju-wa
 REAL.3F-3M-take-CAUS-PST
 ‘He was going to eat that food, but his mother took it away from him’ [author translation]
 (JL, JRB1-044-01, 00:02:31-00:02:44)

9.5 The DEONTIC paradigm

DEONTIC-V-NPST/Ø/POT marking is involved in speech acts with directive illocutionary force (i.e. imperatives, hortatives, jussives). DEONTIC-V-NPST/Ø/POT marking can also occur with deontic modal readings, as displayed in Table 9.8. This is in contrast to the IRREALIS paradigm, in which the conversational background (Kratzer 1981; 1991; 2012) is contextually inferred (i.e. it doesn’t specify modality type). However, like the IRREALIS paradigm, the DEONTIC paradigm is underspecified with respect to modal force (able to express possibility, weak necessity and necessity).

§9.5.1 considers its occurrence with directive illocutionary force, while §9.5.2 focuses on the deontic modal nature of DEONTIC-V-NPST/Ø/POT marking.

Inflectional affix		Modal meaning
Prefix	Suffix	

DEON-	-NPST	Circumstantial modal base; deontic ordering source; (modal force: possibility, weak necessity, necessity);
	-Ø	Circumstantial modal base; deontic ordering source; (modal force: possibility, weak necessity, necessity);
	-POT	Circumstantial modal base; deontic ordering source; (modal force: possibility, weak necessity)

Table 9.8 DEONTIC modal readings

9.5.1 Directive illocutionary force

As has already been briefly examined in §9.4, deontic modal readings (propositions expressing obligation or permission, according to some normative background (Han 1999: 1), as well as directive illocutionary force appear to be expressed by the same system of inflectional marking (i.e. the same paradigmatic forms). This is a characteristic often exhibited by so-called ‘modal-prominent’ languages (Bhat 1999: 83). While IRREALIS-V-NPST/Ø/POT marking is compatible with directive illocutionary force, it is a more prominent feature of the DEONTIC paradigm, given that it is restricted to expressing deontic modal readings, while the IRREALIS paradigm is more varied the modal readings it can express.

The prototypical directive speech act is an imperative. Bhat (1999: 82) argues that imperatives can be regarded as closely related to deontic modals, in the sense that imperatives (like some deontic modals), ‘represent the external compulsion which forces an event to take place... The stronger the external compulsion, the more likely it is that the event would take place’. Han (2000) similarly states that imperatives and deontic modals are similar in that ‘they both have deontic force, i.e. convey as an essential part of their meaning that an obligation or a permission to bring about the relevant state of affairs is used by the speaker’ (in Nikolaeva 2016: 74).

While similar, the two also differ, in that ‘imperatives are used directly by a speaker as a speech act in order to get something done by the addressee, whereas the deontic moods are used only indirectly for a similar purpose. They are only statements and not commands’ (Bhat 1999: 82.) As is also widely recognised, ‘imperatives express not only commands, but also other types of mands: requests, demands, recommendations, advice, and permissions’ (Nikolaeva 2016: 75).

Directive speech acts can be conveyed in Anindilyakwa using verbs that take DEONTIC-V-NPST ((9.78) – (9.80)), DEONTIC-V-Ø ((9.81) – (9.82)) and DEONTIC-V-POT ((9.83) – (9.85)) inflectional marking.

- 9.78) *kərr-əmurnd-amurndərra w-engkərra-ja=ma*
 2A-REDUP-carefully DEON.2A-listen-NPST=MUT
 ‘Everyone listen carefully!’ [source translation]
 (Stokes n.d.-b: 70)
- 9.79) *Ø-bakə-na=ma*
 DEON.2-drink-NPST=MUT
 ‘Drink this!’ [source translation]
 (Stokes n.d.-a: 75)
- 9.80) *w-angi-na akən akwalya*
 DEON.2>NEUT-bite-NPST NEUT.that NEUT.fish
 ‘You keep going [biting the fish]’ [speaker translation]
 (JL, JRB1-085-01, 00:44:31-00:44:34)
- 9.81) *yi-rrəngka-Ø ngayuwə=wa*
 DEON.2>1-look.at-USP 1.PRO=ALL
 ‘Look at me!’ [source translation]
 (Stokes n.d.-b: 72)
- 9.82) *James w-anga-Ø angaba akwalya*
 James DEON.2>NEUT-bite-USP NEUT.that.over.there NEUT.fish
 ‘Bite that fish’ [speaker translation]
 (JL, JRB1-085-01, 00:44:31-00:44:34)
- 9.83) *James, w-angi-ya akwalya*
 James DEON.2>NEUT-bite- POT NEUT.fish

‘James, bite the fish’ [speaker translation]

(JL, JRB1-085-01, 00:42:06-00:42:09)

- 9.84) *yi-minə-mi-ya* *angaba* *jurra*
DEON.2>1-BENE-take-POT NEUT.that.over.there NEUT.paper
‘Pick up that paper for me!’ [source translation]
(Stokes n.d.-b: 70)

- 9.85) *Carolyn, yi-beka-ji-ya=lhangwa* *akungwa*
Carolyn, DEON.2>1-drink-CAUS-POT=ABL NEUT.water
nungkuwa=langwa=langwa mənalamba
2.PRO=POSS=ABL VEG.cup
‘Carolyn, give me some water from your cup, let me drink *akungwa*, water’
(JL, JRB1-085-01, 00:49:41-00:50:06)

Directives involving a third person subject (i.e. a command to a second person regarding a third person) can similarly be expressed through DEONTIC-V-NPST/Ø/POT inflectional marking, as in (9.86) and (9.87).

- 9.86) *mama* *enə-lhəka-ja* *ene-ja*
okay DEON.3M-go-NPST 3M.PRO-CofR
abənə-ngarre-na
DEON.3M>3A-visit-NPST
‘It’s okay, let him go and let him visit them’ [source translation]
(Leeding 1989: 418)

- 9.87) *enə-lhəki-ya*
DEON.3M-go-POT
‘Let him go!’ [speaker translation]
(JL, fieldnotes, 18/07/2017)

For directives involving first person subjects (so called ‘true hortatives’ (Nikolaeva 2016: 76), the DEONTIC paradigm is syncretic with the REALIS paradigm (which is not the case with second or third persons, which employ distinct prefix series). As with other directives, first person (hortatives) can be expressed through DEONTIC-V-NPST/Ø/POT marking, as in (9.88) and (9.89).

- 9.88) *dhirndirrka-kiya* *ngarra-mənə-lirrak-arrangbi-na*
 3F.mother-two DEON.12A>3A-BENE-DU-collect-NPST
 ‘Let me collect it for my two mothers’ [source translation]/
 ‘Let’s collect it for our two mothers’ [JL, CW, fieldnotes 20181121]
 (Stokes n.d.-a: 34; Stokes n.d.-b: 71)

- 9.89) *yi-ma-warrukwa-ji-na* *arakba* *mu-walyuwa-mərrə=kba*
 DEON.12-VEG-cross-CAUS-NPST COMPL.ACT VEG-ripe-DEP=DENIZ
 ‘Let’s turn it [*mənhəŋga* ‘VEG.burrawang’] over now to see if it is already cooked’
 [source translation]
 (van Egmond 2012: 311)

9.5.2 Deontic modality

As mentioned above, DEONTIC-V-NPST/Ø/POT marking is restricted to expressing deontic modality, but is felicitous across a range of contexts corresponding to different modal strengths. This is displayed in examples (9.90) – (9.93), expressing deontic possibility ((9.90) – (9.91)), (weak) necessity (9.92), and (strong) necessity (9.93).

DEONTIC-V-NPST marking occurs most frequently ((9.91) – (9.93)), although DEONTIC-V-Ø/POT marking are also possible (e.g. 9.90). As discussed in §9.2.1.2, DEONTIC-V-POT marking allows only a modal force of possibility or weak necessity to be expressed, indicating e.g. permission (9.90), in which the event is inferred as optional and not obligatory by the speaker, as opposed to stronger deontic readings that can be expressed by DEONTIC-V-NPST/Ø marking.

- 9.90) *Ø-ambərri-ya* *n-ena* *nungk-wanbijungwu-na*
 DEON.2-sit.down-POT 3M-this 2-be.tired-NPST
 ‘You can sit down’ [author translation; prompt: ‘now you’re just guessing that

- 9.94) *juw* *Ø-lhaka-ja*
 go **DEON.2**-go-NPST
 ‘You can go [talking to a pupil who obviously wants to go but does not dare]’
 (JL, JRB1-045-01, 00.28.22-00.28.25)
- 9.95) *k-alyabarə-na=mə=ka* *nəngk-akəna* *anənga*
IRR.2-eat-NPST=MUT=EMPH 2-that NEUT.food
enəngerribarə=lhangwa *ayika*
 NEUT.wild=ABL NEUT.tree
 ‘You can eat the fruit from any of the trees’
 (Bible Society in Australia 1992: 12)
- 9.96) *kə-bekə-n* *akən* *akungwa* *ki-yakwurra-na=manja*
IRR.2-drink-NPST NEUT.that NEUT.water **IRR.2**-be.thirsty-NPST=LOC
 ‘[You can] drink that water if you are thirsty’
 (JL, JRB1-045-01, 00.32.13-00.32.17)
- 9.97) *James=a* *Ø-lhukwe-n* *alhəkwanja*
 James=PF **DEON.2**-dance-NPST NEUT.dance
 ‘You should dance, James’
 (CW, JRB1-049-01, 00:50:53.911-00:50:56.506)
- 9.98) *James=a* *kə-warri-na* *m-akən* *malharra*
 James=PF **IRR.2**-throw-NPST VEG-that VEG.stone
 ‘You should throw that stone away’
 (JL, JRB1-049-01, 00:51:41.589-00:51:44.291)
- 9.99) *James=a* *Ø-lhaka-j* *angarriba*
 James=PF **DEON.2**-go-NPST to.over.there
 ‘You must go to the bush medicine place, James’
 (JL, JRB1-049-01, 00:49:20.472-00:49:23.993)

9.100) *nəŋk-arn ngəwa kə-lhukwe-na alhəkwanja*
 2-this continue **IRR.2**-dance-NPST NEUT.dance
 ‘You must dance’
 (JL, JRB1-049-01, 00:50:57.569-00:51:00.569)

9.101) *Ø-bakə-na=ma*
DEON.2-drink-NPST=MUT
 ‘Drink this!’
 (Stokes n.d.-a: 75)

9.102) *Renato k-engkərrə-ja, dhərndhenu=wa*
 Renato **IRR.2**-listen-NPST 3F.mother=ALL
 ‘Renato, listen to your mother!’
 (ST, JRB1-054-01, 00.27.51-00.28.02)

While DEONTIC and IRREALIS paradigms can occur in the same context, such as in a succession of imperative utterances, in such cases verbs involving DEONTIC paradigms occur in the first clause/series of clauses, followed by verbs involving IRREALIS paradigms, suggesting that DEONTIC-V-NPST/ØPOT marked verbs carry the main illocutionary force, as displayed in (9.103) – (9.106).

9.103) “*kwa kembirra, ngenə-ngaji-na n-akəna akwa*
 come then **DEON.12A>3M**-kill-NPST 3M-that and
ak-errikbi-na nenumadangkwa engburingka=wa emedirra”
IRR.12A>NEUT-throw-NPST 3M.body NEUT.dry=ALL NEUT.well
ne-yama-Ø
 REAL.3M-say-PST
 ‘Come on now, let's kill him [DEONTIC] and throw [IRREALIS] his body into a dry well’
 (Bible Society in Australia 1992: 305)

- 9.104) “*wurringa-wilyakə-na* *kembirra* *angwura=wa* *akwa*
DEON.2A>3F-take-NPST then NEUT.fire=ALL and
yikinga-dhakə-na *kəngi-jungwu-na*” *ne-yama-Ø*
IRR.2A>3F-burn-NPST IRR.3F-die-NPST REAL.3M-say-PST
‘Take her away [DEONTIC] and burn her [IRREALIS] to death’
(Bible Society in Australia 1992: 318)
- 9.105) “*wu-lhalhəkə-na* *arakba* *enena* *angalya*
DEON.2-leave-NPST COMPL.ACT NEUT.this NEUT.place
nungkwa=lhangwa *iya nungw-ena=lhangwa*
2.PRO=ABL and 3M.father-2.KIN=ABL
akwa *wurra-wurrakə-lhalhəkə-na* *arakba*
and DEON.2>COLL-many-leave-NPST COMPL.ACT
wurru-mərndak-enena warnumamalya *nungkwa=lhangwa*
COLL-many-this COLL.people 2.PRO=ABL
enena=manja *angalya* *biya* *kə-lhəka-ja* *arakba*
NEUT.this=LOC NEUT.place and.then IRR.2-go-NPST COMPL.ACT
angabu=wa *angalya* *eminəngku=wa*
NEUT.that.over.there=ALL NEUT.place NEUT.different=ALL
yiba-wilyakaji-na=mərru=wa *nəngk-akəna*”
IRR.1>2-show-NPST=MUT=ALL 2-that
‘Leave [DEONTIC] this country belonging to you and your father, and leave
[DEONTIC] your people here, and go [IRREALIS] to a different country that I will
show you’
(Bible Society in Australia 1992: 77)
- 9.106) *kembirra* *wu-mi-ya* *arakba* *enungkwa*
then DEON.2>NEUT-take-POT COMPL.ACT NEUT.spear
nungkwa=lhangwa *akwa* *Ø-lhəka-ja* *erriberriba=wa*
2.PRO=ABL and DEON.2-go-NPST NEUT.bush=ALL
yi-mən-aburangə-na *yinəngəngwangbu=wa*
DEON.2>1-BENE-look.for-NPST MASC.land.animal=ALL
kənu-warde-na *yu-wilyaba,* *kənə-lhawurraka-ji-na*

IRR.2>MASC-kill-NPST MASC-one **IRR.2>MASC-return-CAUS-NPST**
yangkwurrangwa akwa kənə-dhakə-na *y-ukwurara*
 to.here and **IRR.2>MASC-cook-NPST** MASC-tasty
nganyangwa k-alyəbarə-ni=yedha kwa, kənu-wilyakə-na
 1.PRO.POSS IRR.1-eat-NPST=PURP come **IRR.2>MASC-carry-NPST**
yu-kwala yangkwurrangwa nganyangwi=yedha
 MASC-some to.here 1.PRO.POSS=PURP
 ‘Take [DEONTIC] your spears and go out [DEONTIC] into the bush and find
 [DEONTIC] an animal for me. Kill one [IRREALIS] and bring it back [IRREALIS] here
 and cook it [IRREALIS] so that it will be tasty for me to eat. Then bring [IRREALIS]
 some here for me’
 (Bible Society in Australia 1992: 209)

Compare this to example (9.107), in which the first three verbs take IRREALIS-V-NPST marking, but of which the subject is God (who one cannot (presumably) command), however the inflectional marking changes to DEONTIC-V-NPST marking when directed towards a group of people to whom an order can be directed.

9.107) “*en-eja n-enəngə-karrawara kənə-kwə-na nungkuwa=wa*
 3M-CofR 3M-M.ALP-above **IRR.3M>3M-give-NPST** 2.PRO=ALL
amidhikbalya angubina=lhangwa kənə-kwə-na ngarningka
 NEUT.condensation NEUT.sky=ABL **IRR.3M>3M-give-NPST** again
n-enəngə-karrawara ababərna=lhangwa amadhidhira amanhəngakwa
 3M-M.ALP-above NEUT.many=ABL NEUT.seed NEUT.food and
ngəwa ababərna amalyirra akwurena=lhangwa əmba
 continue NEUT.many NEUT.liquid ??=ABL but
abərr-aja wurru-wurrak-wulyumədha warnumamalya
 COLL-CofR COLL-many-whole COLL.people
wurrə-mənə-mənəngka kabə-mənu-war.de-na nungkwa=lhangwa
 COLL.REDUP-different **IRR.3A>2-BENE-work-NPST** 2.PRO=POSS
warka akwa abi-yami-na wurr-akəna nungkuwa=wa
 NEUT.work and **DEON.3A-say-NPST** COLL-that 2.PRO=ALL
 “*nəngk-arəma nəngk-enumamalya nəngk-akəna*” *abi-yami-na*

2-great 2-person 2-that DEON.3A-say-NPST
 “*akwa ab-abulhuwendhi-ye=ka nungkuwa=manja*
 and DEON.3A-bend.down-POT=EMPH 2.PRO=LOC
wurr-akəna”

COLL-that

‘May God give [IRREALIS] you dew from heaven. May he give [IRREALIS] you plenty of seeds for food and plenty of wine. May nations work [IRREALIS] for you as servants. May they say [DEONTIC] “You are a great person” and bow down [DEONTIC] to you’

(Bible Society in Australia 1992: 214-15)

Hortative speech acts, in which the subject is inanimate, as in (9.108) have been identified only with DEONTIC-V-NPST marking (and not IRREALIS-V-NPST). While DEONTIC-V-NPST marking is clearly much more common in these contexts, it needs to be more clearly verified whether IRREALIS-V-NPST marking is unacceptable in these contexts. This is left to future research.

9.108) “*akə-lharradhi-ya*” *ni-yama-Ø* *n-akəna*
 DEON.NEUT-become.light-POT REAL.3M-say-PST 3M-that
aki-yebijebaka-ja-Ø *akungwa ngalha* *amungukungwa,*
 DEON.NEUT-separate-CAUS-USP NEUT.water NEUT.PRO NEUT.freshwater
ekuwarra karrawaru=wa, əmba ngalh-aja ekuwarra arrawa=manja”
 NEUT.half above=ALL but NEUT.PRO-CofR NEUT.half above=LOC
ni-yama-Ø “n-akəna akungwa aku-murndhukwu-na
 REAL.3M-say-PST 3M-that NEUT.water DEON.NEUT-come.together-NPST
awurrakawura=mərra” ni-yama-Ø, *“kajungwa*
 NEUT.together=EMPH REAL.3M-say-PST so.that
kuw-abilyerri-ka-jungwu-ni=yedha ajiringka” ni-yama-Ø
 IRR.NEUT-visible-FACT-REFL-NPST=PURP NEUT.earth REAL.3M-say-PST
n-akəna
 3M-that

“Let there be light” he said. “Let the water separate, half above and half below” he said. “Let the water come together in one place” he said, “so that the earth can

appear”

(Bible Society in Australia 1992: 3-4)

DEONTIC	IRREALIS
Deontic possibility, weak necessity, necessity	Deontic possibility, weak necessity, necessity
Imperatives	Imperatives
Hortatives (second person subject)	Hortatives (second person subject)
Hortatives (third person animate subject)	Hortatives (third person animate subject)
Hortatives (third person inanimate subject)	?

Table 9.9 DEONTIC VS. IRREALIS modal readings

9.6 Negation

Negation is marked in two ways in Anindilyakwa: i) the employment of a negative particle (generally *nara*) plus the IRREALIS-V-PAST/NON-PAST inflectional marking, and ii) the use a negative particle (generally *nara*) plus the NEGATIVE NON-PAST circumfix.

IRREALIS-V-PAST inflectional marking is used to express all negative past events (irrespective of modality). IRREALIS-V-NPST does not exhibit this same freedom for non-past situations, being restricted to expressing only negative habitual events (e.g. to never [do something]). In other negative non-past situations, the distinct NEG.NPST circumfix (of the form *a-/ng-V-ma/ngəma*) is employed, which unlike other prefixes, is unmarked for person or number (and therefore free pronominals must be used to specify this information).

The interaction of the IRREALIS with negation is examined in §9.6.1 (mainly considering past temporal events, but also the restricted non-past contexts in which it is employed). The interaction between the IRREALIS paradigm and negation is a noteworthy topic of discussion in this section, in light of the widespread typological research that has demonstrated that polarity can determine irrealis marking (i.e. in situations where a positive indicative clause might take a realis marker, the corresponding negative polarity context obligatorily takes irrealis marking (Elliott 2000: 77)). Following this, the use of the NEG.NPST circumfix to express non-past negative situations is examined in §9.6.2.

9.6.1 NEG + IRREALIS-V-PST/NPST

While past and present positive polarity sentences are inflected with REALIS-V-PST/NPST/Ø/POT marking in ‘actualised’ situations, their negative polarity counterparts instead take obligatory irrealis marking, irrespective of their modal reading. Past negative (and restricted types of non-past) clauses take IRREALIS-V-PST/NPST inflectional marking, while other (non-past) negative non-past situations are marked by the NEG.NPST circumfix.

Many typological studies (c.f. Elliott 2000; Mithun 1995) have examined the interaction between irrealis markers and negation, and it has been widely observed that polarity can influence irrealis marking, i.e. for situations where a positive indicative clause might take a realis marker, the corresponding negative polarity context obligatorily takes irrealis marking (Elliott 2000: 77). Negation itself has been suggested by some scholars to be a type of modality, given that ‘by talking about non-existent events or states, we are talking about events or states that are not real’ (de Haan 2006: 52).

However, languages vary with respect to irrealis marking and negative polarity, with some languages using irrealis forms obligatorily in negative contexts (e.g. Anindilyakwa), and others taking only realis forms in the same (negative) contexts. Mithun (1995: 380-1) notes that this is due to the scope of negation in regard to reality operators, where in languages that take irrealis forms in these contexts one is ‘denying the reality of an event’ (i.e. negation has scope over mood), and in languages that take realis forms one is ‘asserting its non-reality’ (i.e. mood scopes over negation) (Malchukov & Xrakovskij 2016: 212).

Anindilyakwa is an example of the former category of languages, in which negation obligatorily takes irrealis marking. Past events take IRREALIS-V-PST marking (§9.1), habitual non-past events emphasising the negative habituality (e.g. *P* never happens) take IRREALIS-V-NPST marking (§9.1.2), and other non-past events take a unique NEG.NPST circumfix (§9.2).

9.6.1.1 Past: NEG + IRREALIS-V-PST

Modal distinctions that are formally marked in positive polarity contexts are neutralised in negative contexts, with IRREALIS-V-PST marking used to express both ‘actualised’ readings (9.109) and modal readings, with epistemic (9.110), and circumstantial ((9.111) – (9.112)) modal bases. Past negative verbs obligatorily take IRREALIS-V-PST marking (i.e. IRREALIS-V-Ø marking is disallowed).

- 9.109) *nara* *n-akəna* *kenu-kwa-Ø* *a-rmdak-akəna*
 NEG 3M-that IRR.3M>2-give-PST NEUT-many-that
angwarnda
 NEUT.money
 ‘He didn’t give you all that money’ [author translation; prompt: ‘He didn’t give you all that money’]
 (JL, JRB1-044-01, 00:17:59-00:18:04)
- 9.110) *nganya* *nabə-rraka* *nara kən-adhər-ra-nga* *y-akəna*
 1.PRO.POSS 3M.son-1.KIN NEG IRR.3M>MASC-spear-PST MASC-that
yiburadha
 MASC.wallaby
 ‘My son might not have speared a wallaby’ [author translation; prompt: ‘My son might not have speared a wallaby’]
 (JL, JRB1-042-01, 00:05:46-00:05:52)
- 9.111) *n-akəna* *Patrick=a nara* *kənəmə-ngk-arrənga-rna*
 3M-that Patrick=PF NEG IRR.3M>VEG-half(?)=break-PST
mungarukwa
 VEG.fishing.line
 ‘Patrick didn’t have to break the fishing line’ [author translation; prompt:
 ‘Imagine that I wasn’t in a situation of having to break the fishing line, so Patrick did not have to break the fishing line’]
 (JL, JRB1-042-01, 00:33:08-00:33:15)
- 9.112) *n-akəna* *James* *nara* *kən-rinjurrkwa-ju-w* *akəna*
 3M-that James NEG IRR.3M-move-CAUS-PST NEUT.that
ayika *n-akəna* *nə-lyang-burdhə=ma*
 NEUT.tree 3M-that 3M-head-strong(?)=EMPH
 ‘James wasn’t able to lift the tree’ [author translation; prompt: ‘James, he wasn’t |
 able to lift the tree, he tried, but nara, he didn’t manage, nara, James was not able to lift the tree’]
 (JL, JRB1-042-01, 00:28:09-00:28:21)

Obligatory IRREALIS-V-PST marking for negated past events results in an unusual potential ambiguity for negated past events between a non-actualised event, as in (9.113) (which entails that the event did not occur; the man didn't give the money) and a modal reading in which the event did take place, albeit to the dissatisfaction of the speaker, as in (9.114) (which entails the event did occur, and that the view of the speaker is that this is an undesirable thing; the man gave the money, but he shouldn't have done it). This ambiguity has been reported in other languages that have obligatory irrealis marking in the past, such as in Murrinh-Patha (Nordlinger & Caudal 2012). While this ambiguity exists, the reading of (9.114) can be expressed unambiguously by the attachment of the =*maka* EVITATIVE clitic (see §10.3).¹²⁰

9.113) *nara* *n-akəna* ***kenu-kwa-Ø*** *a-rmdak-akəna*
 NEG 3M-that **IRR.3M>2-give-PST** NEUT-many-that
angwarnda
 NEUT.money

‘He didn’t give you all that money’ [author translation; prompt: ‘He didn't give you all that money’]

(JL, JRB1-044-01, 00:17:59-00:18:04)

9.114) *n-aka* *nara* ***kenu-kwa-Ø*** *a-rmdak-akəna* *money*
 3M-this NEG **IRR.3M>2-give-PST** NEUT-many-that NEUT.money
angwarnda
 NEUT.money

‘He shouldn’t have given me that money’ [author translation; prompt: ‘He shouldn't have given me that money’]

(JL, JRB1-044-01, 00:18:27-00:18:35)

9.6.1.2 Non-past: NEG + IRREALIS-V-NPST

While most non-past negative events are marked with a distinct NEG.NPST circumfix (see (§9.6.2)), for non-past habitual events, in which the intensity of the negative event is being

¹²⁰ Note in these examples the difference in position of *nara* (before vs. after the demonstrative). In the data examined, the change of position does not appear to change the meaning of the clause, however it will be left to future research to examine this in greater detail.

emphasised (e.g. *P* never happens), IRREALIS-V-NPST marking is employed. Compare examples (9.115) and (9.116).

9.115) *nara* *a-lhaka-ngama*
 NEG NEG.NPST-go-NEG.NPST
 ‘He’s not going’ [source translation]
 (Stokes 1982: 88)

9.116) *nara* *kənə-lha-lhaka-ja* *n-akəna*
 NEG IRR.3M-REDUP-go-NPST 3M-that
 ‘He never goes’ [source translation]
 (Stokes 1982: 88)

It is interesting that there is this specific habitual distinction made in negative polarity contexts, given that many distinctions exhibited in positive polarity contexts are neutralised in negative polarity contexts, and moreover that this habitual property is not formally distinguished at all in positive polarity contexts (e.g. REALIS-V-NPST marking can express general present (‘he goes’), present continuous (‘he is going’), and habitual (‘he always goes’) readings).

In addition to this inflectional IRREALIS-V-NPST marking, reduplication of the verb stem is obligatory in these constructions (see examples (9.117) and (9.118)); speakers reject forms not demonstrating a reduplicated stem.

9.117) *wurrə-kwala* *wurri-yukwayuwa* *nara school=uwa*
 3A-some 3A-small NEG NEUT.school=ALL
kuwa-lha-lhaka-ja
 IRR.3A-REDUP-go-NPST
 ‘Some children never go to school’ [source translation]
 (Stokes n.d.-b: 76)

9.118) *nəng-ena* *nara yuku-ku-kwu-na* *arəma* *anhənga*
 1-this NEG IRR.2>1-REDUP-give-NPST NEUT.big NEUT.food

‘You never give me enough food’ [source translation]
 (Stokes n.d.-b: 76)

Given that neighbouring Gunwinyguan languages (e.g. Wubuy) use an irrealis prefix to obligatorily mark present and past negative events, it is a possibility that this IRREALIS-V-NPST marking previously had a wider range of negative readings, but is now restricted to only this specific negative habitual use, with the NEG.NPST circumfix taking over other negative non-past readings. Clearly, however, further research is needed in order to be more confident about this historical account.

9.6.2 *Non-past: NEG + NEG.NPST-V-NEG.NPST*

Negative non-past events (aside from those discussed in §9.6.1.2) are marked with a distinct NEG.NPST circumfix. This marking is notable in that, unlike other inflectional TAM marking (involving a portmanteau prefix), it doesn’t mark person or number, with free pronouns required to specify this information if necessary.

This NEG.NPST marking, like the IRREALIS-V-PST in past contexts, expresses both modal (e.g. (9.119)) and ‘actualised’ readings, such as future (9.120), bouletic (9.121), and epistemic (9.122) and circumstantial (9.123) and (9.124) modal readings.

9.119) <i>y-akəna</i>	<i>yingarna</i>	<i>nu-warde-na=manja</i>
MASC-that	MASC.snake	MASC>MASC-kill-NPST=LOC
<i>yinəngəngwangba</i>	<i>nara</i>	<i>ng-angə-ma</i>
MASC.animal	NEG	NEG.NPST-bite-NEG.NPST
<i>y-akəna</i>	<i>yi-yukwayuwa=wiya</i>	<i>a-lyəbalyə-ma</i>
MASC-that	MASC-small=PRG	NEG.NPST-eat-NEG.NPST
<i>wubər̄ra</i>	<i>wurruwarda...</i>	
like	COLL.dog	

‘When a snake kills an animal it doesn’t bite it into little pieces, it doesn’t eat like dogs do...’ [source translation]

(GL, A3369a Side1, a3.5 Dingarna-langwa akwa wurruwarda-langwa ‘Snake and a dog’)

9.120) *ngarr-əna nara a-aybaru-ma ngarrə-mdh-əkəna*
 12A-this NEG NEG.NPST-eat-NEG.NPST 12A-many-that
arnungkwaya
 tomorrow
 ‘We will not eat together tomorrow’ [author translation; prompt: ‘We will not eat together tomorrow’]
 (JL, JRB1-044-01, 00:10:29-00:10:39)

9.121) *əkəna nara nung-arna a-ngeybəraka-m akəna*
 but NEG 1-this NEG.NPST-make-NEG.NPST NEUT.that
alhudha arnungkwaya
 NEUT.painting tomorrow
 ‘I’m not planning to make this bark painting tomorrow’ [author translation; prompt: ‘I’m not planning to make this bark painting tomorrow’]
 (JL, JRB1-044-01, 00:05:05-00:05:15)

9.122) *nəra=kə n-akən e-yedhə-m ambaka əmba*
 NEG=EMPH 3M-that NEG.NPST-arrive-NEG.NPST later but
amiyerra kən-ambilya=m yakwujin mijiyely=manja
 long.time IRR.3M-stay.NPST=MUT there VEG.beach=LOC
 ‘He might not come later, he might still be at the beach’ [author translation; prompt: ‘Now you think, hmm, maybe not, it’s not certain that James will be early’]
 (JL, JRB1-042-01, 00:21:29-00:21:35)

9.123) *wurri-yukwayuwa nara a-wardə-ma y-əkəna mena*
 3A-small.PL NEG NEG.NPST-hit-NEG.NPST MASC-that because
karrak-akbərrangə-Ø=mə=baba angunya
 IRR.NEUT>3A-find-USP=MUT=REAS NEUT.boil
 ‘Children mustn’t hit them [yinvkarrbiyama ‘MASC.caterpillar’] for they will get boils’ [source translation]
 (Groote Eylandt Linguistics 1993: 103)

9.124) *nara nəng-ena ayarrka=ma ng-adhərru-ma*
 NEG 1-this NEUT.hand=INST NEG.NPST-pierce-NEG.NPST
akwalya
 NEUT.fish
 ‘I can’t spear fish with my hands’ [source translation]
 (van Egmond 2012: 223)

The NEG.NPST circumfix also occurs with directive illocutionary force in negative clauses, expressing e.g. negative imperatives ((9.125) – (9.127)) and hortatives (9.128).

9.125) *nəngk-ena nara a-lyinga-ma y-akəna*
 2-this NEG NEG.NPST-touch-NEG.NPST MASC-that
yingarna mena kan-angi-ya=maka
 MASC.snake because IRR.MASC>2-bite-POT=EVIT
 ‘Don’t touch this snake, it might bite you’ [prompt: ‘Don’t touch this snake, it might bite you’]
 (JL, JRB1-044-01, 00:24:14-00:24:23)

9.126) *nara a-maku-ma akəna alhawudhawərɾa*
 NEG NEG.NPST-tell-NEG.NPST NEUT.that NEUT.story
wurru-mərndak-eyinə=manja wurri-yukwayuwa
 3A-many-this=LOC 3A-child
 ‘Don’t tell that story to these children!’ [source translation]
 (Stokes n.d.-b: 71)

9.127) *nara kirr-akəna a-wilyaka-ma diraka*
 NEG 2A-that NEG.NPST-hold-NEG.NPST NEUT.car
yikə-bekə-na=manja anija akwa
 IRR.2A-drink-NPST=LOC NEUT.beer and
yik-angkarrkiwurre-na=manja amarda
 IRR.2A-smoke-NPST=LOC NEUT.grass
 ‘Don’t drive if you have drunk alcohol or taken drugs’ [source translation]
 (ALC Induction Policy 2019: 10)

9.128) *narə=ka a-lawurradhə-ma wurr-akəna*
 NEG=EMPH NEG.NPST-return-NEG.NPST 3A-that
yangkwurrangwa
 to.here
 ‘Don’t let them come back here!’ [source translation]
 (Stokes n.d.-b: 72)

9.7 Summary

Modality is expressed via different lexical and grammatical means in Anindilyakwa, as is typical cross-linguistically. This said, the ‘core’ means of modal marking in Anindilyakwa is through inflectional marking on the verb; a combination of portmanteau prefix + TAM suffix paradigms.

The primary means of modal expression in Anindilyakwa (as is characteristic of many non-Pama-Nyungan languages) is through combining information from at least two discontinuous morphological slots of the verb structure. The combination of (one of three series of) portmanteau prefixes (REALIS, IRREALIS, DEONTIC) and (one of four) TAM suffixes (NON-PAST, PAST, Ø, POTENTIAL), result in the expression of different temporal and modal readings.

A key distinction within the inflectional modal system is that between REALIS-V-NPST/PST/Ø vs. IRREALIS-V-NPST/PST/Ø/POT inflectional marking. This distinction is the basis for factual vs. non-factual modal distinctions (and consequently also to distinguishing between situations occurring before/at and after the reference time (i.e. non-future vs. future)). REALIS-V-NPST/PST/Ø inflectional marking is used predominantly to express situations that are actually occurring or have occurred, while IRREALIS-V-NPST/PST/Ø/POT inflectional marking covers a wider range of possible modal readings, occurring with epistemic, deontic and dynamic modal readings.

IRREALIS-V-NPST/PST/Ø/POT inflectional marking, in particular, has a wide range of modal readings. It is involved in future temporal reference and a complex cluster of modal readings including epistemic, deontic and dynamic modality, covering both open (potential future events) and foreclosed (e.g. counterfactual) possibilities, and is compatible with both necessity and possibility readings, being underspecified for modal force. Additionally, the IRREALIS portmanteau prefix is also obligatory in the marking of negative past situations.

From the multiple readings involving the IRREALIS portmanteau prefix series, two broad clusterings of semantic meanings can be observed; open possibility readings (those taking non-past marking); and foreclosed readings (those taking past marking).

The third portmanteau prefix series, the DEONTIC, an exponent in discontinuous inflectional marking, that occurs in combination with a NON-PAST/Ø/POTENTIAL TAM marker, indicates a directive illocutionary force, often coinciding with deontic modal readings.

Of the TAM suffixes (NON-PAST, PAST, Ø, POTENTIAL) that combine with portmanteau prefixes in order to express modal readings, the POTENTIAL suffix is restricted in its distribution, occurring only in combination with IRREALIS and DEONTIC portmanteau prefixes (i.e. disallowed with REALIS portmanteau prefixes). While IRREALIS/DEONTIC-V-NPST/Ø inflected verbs are underspecified for modal force, IRREALIS/DEONTIC-V-POT inflectional marking limits the modal force of the proposition expressed, where a ‘weaker-than-necessary’ reading of the modal is expressed.

Chapter 10

Complex TAM interaction: Conditionals, intentionals, apprehensionals

Following the discussion of inflectional modal marking (particularly involving the IRREALIS inflectional paradigm) in Chapter 9, and t-complementising case involved in temporal and logical relations in complex sentences in Chapter 8, I examine complex sentence constructions involving the interaction between modality and aspectuo-temporality in this chapter. In particular, I examine constructions involving conditional structures, intentionality, volition and apprehension, all of which obligatorily require IRREALIS-V-PST/NPST/Ø/POT inflectional marking.

Conditional structures in Anindilyakwa generally involve t-complementising case (where the =*manja* LOCATIVE attaches to the inflected verb in the antecedent clause). These conditional structures are used to express readings covering both future possibilities and foreclosed possibilities (i.e. involving inaccessible worlds). This is discussed in §10.1. In §10.2 I consider intentionality and volition, predominantly examining the =*yedha* PURPOSIVE clitic and its interaction with inflectional marking, particularly within main clauses. Of particular interest in this section is the use of PURPOSIVE constructions in expressing not only intentionality, but also in expressing frustrative (e.g. ‘was going to [but didn’t]’), proximative (e.g. ‘about to’, imminent) and narrowly averted (e.g. ‘nearly’) readings. In addition to the PURPOSIVE, §10.2 also examines the verb -*ngiyendhe*- ‘want’, and its role in expressing volition and intentionality. The final section of this chapter, §10.3, turns to apprehensional

constructions (i.e. expressing possible but undesirable eventualities that could be prevented). Apprehensives in Anindilyakwa involve the EVITATIVE clitic =*maka*, which occurs with both future temporal contexts (in which a typical apprehensive reading is expressed), as well as past temporal contexts. §10.4 provides a summary of the chapter.

10.1 Conditionals

Conditional structures in Anindilyakwa involve two clauses, an antecedent (a dependent clause, that generally takes =*manja* LOCATIVE clitic marking¹²¹) and consequent (a main clause). Both antecedent and consequent clauses in Anindilyakwa involve verbal predicates inflected with IRREALIS-V-PST/NPST/Ø/POT marking. The antecedent expresses the condition upon which the existence of the circumstances expressed by the consequent depends (i.e. *if P, then Q*).

Semantically, following a Kratzerian approach, conditionals are modal in nature, involving quantification over possible worlds. We can think of conditionals as existing on a continuum of ordered possible worlds: open (hypothetical, possible-future) conditionals (involving possible worlds that are accessible from the actual world) are on one side, and closed (counterfactual) conditionals (involving worlds with very low, to no, accessibility from the actual world) on the opposite side. I use the terms ‘open’ vs. ‘foreclosed’ conditionals (cf. Ippolito 2002, 2003), making the distinction between ‘open’ (hypothetical future worlds accessible from the actual world), and ‘foreclosed’ (inaccessible worlds from the actual world). As was demonstrated in Chapter 9, the verbal inflectional system is central in the expression of TAM readings, and focussing on modal distinctions, REALIS-V-PST/NPST/Ø vs. IRREALIS-V-PST/NPST/Ø/POT marking is key to distinguishing between realised past/present temporal readings vs. future temporal and non-factual modal distinctions. In discussing conditionals, we are concerned primarily with the IRREALIS inflectional paradigm, and its use in complex clauses.

Anindilyakwa maintains a strict temporal distinction between past and future marking in conditional structures.¹²² Conditionals whose verbal predicates take IRREALIS-V-PST inflectional marking always implies that the temporal anchoring of the accessibility relation

¹²¹ While very frequent, =*manja* LOCATIVE clitic marking does not obligatorily attach to verbs in antecedent clauses; conditional structures can alternatively occur simply as two juxtaposed clauses, whose verbs take IRREALIS-V-PST/NPST/Ø/POT marking.

¹²² For instance, there are no ‘fake past’ style future-less-vivid conditionals (cf. Iatridou 1998).

occurs before utterance time, while conditionals whose verbal predicates take IRREALIS-V-NPST/POT/Ø always implies that the temporal anchoring of the accessibility relation occurs after utterance time. This is outlined in Table 10.1.

In this section I first overview possible future conditionals in §10.1.1, before turning to closed counterfactual conditionals in §10.1.2.

Actual past/present		Open (possible) future e.g. ‘if it rains tomorrow, I won’t go to the party’ e.g. ‘if it were to rain tomorrow, I wouldn’t go to the party’		Foreclosed (counterfactual) past e.g. ‘if it rained yesterday, I wouldn’t have gone to the party’ e.g. ‘if it had rained yesterday, I wouldn’t have gone to the party’	
REAL-	-NPST -PST -Ø	IRR-	-NPST -POT -Ø	IRR-	-PST

Table 10.1 Inflectional verbal marking involved in conditional structures

10.1.1 *Open (possible future) conditionals*

In contrast to some languages, where counterfactual constructions can involve temporal morphemes used in contexts in which they generally would not be temporally accepted (e.g. when a past temporal morph isn’t used to yield a temporal interpretation, but rather used as part of a strategy to express future-less-vivid ‘counterfactual future’ readings in particular morpho-syntactic environments), in Anindilyakwa the temporal readings of the TAM suffixes remain constant: IRREALIS-V-NPST/Ø/POT marking occurs with future temporal readings or where the temporal anchoring of the accessibility relation occurs after utterance time, while IRREALIS-V-PST marking indicates that the temporal anchoring of the accessibility relation occurs before utterance time (regardless of other factors, such as counterfactuality).

As mentioned above, the inflected verb in the antecedent clause in conditional structures generally takes the =*manja* LOCATIVE clitic¹²³, as in (10.1) (see §8.3 for further details). Open conditionals are inflected IRREALIS-V-NPST/Ø/POT TAM marking. Verbs marked with IRREALIS-V-POT marking are restricted to expressing events which have less probability of occurring (e.g. ‘if *P*, then *Q*’) (example 10.2), while for IRREALIS-V-NPST/Ø inflected verbs, no such restriction applies (examples 10.2 and 10.3). Thus, while IRREALIS-V-NPST marking can occur with a predictive modal base, indicating a presupposed temporal clause as in (10.1), IRREALIS-V-POT marking can occur only with a hypothetical modal base, as in (10.2). This is due to the restriction of IRREALIS-V-POT marking to express only possibility or weak necessity readings, vs. the underspecification of modal force of IRREALIS-V-NPST/Ø marking (see §9.2.1.2 for further details).

- 10.1) *n-aka* *nə-bukwaya* ***kənə-lhəke-ja***=*manja* *yenjerrkəna*,
 3M-this 3M-this.coming IRR.3M-go-NPST=LOC there
ngarna ***aka-rrak-ajiya***=*ma*
 12A.this IRR.12A-forehead-stand.NPST=MUT
 ‘When he comes over there, we will sit’ [speaker translation]
 (ST, fieldnotes, 29/06/2017)

- 10.2) *n-aka* *nə-bukwaya* ***kənə-lhəki-ya***=*manja* *yakwujina* *ngarna*
 3M-this 3M-this.coming IRR.3M-go-POT=LOC here 12A.this
aka-rrak-ajiya=*ma*
 IRR.12A-forehead-stand.NPST=MUT
 ‘If he comes, they will sit here’ [author translation; Prompt: ‘If he comes, they will sit there’]
 (JL, JRB1-044-01, 00:25:18-00:25:26)

IRREALIS-V-Ø marking also occur with possible future conditionals, where (through interaction with Aktionsart properties) a perfective aspectual reading is inferred, as in example (10.3) (e.g. when I come back/ at the point at which I come back) (see §6.5, §9.2.1.2.2 and §9.4.1.2 for further details regarding phonologically Ø marking in the [+3] slot of the verbal template).

¹²³ It is also possible, however, for the antecedent and consequent clauses of conditional constructions in Anindilyakwa to occur simply juxtaposed to one another (i.e. with no further grammatical marking).

- 10.3) *ngayuwa kə-lhəwrradh-Ø=manja n-akəna nganyangwa*
 1.PRO IRR.1-return-USP=LOC 3M-that 1.PRO.POSS
nabə-rranga arakba enenuwiya kənə-lhəka-ja
 3M.son-1.KIN COMPL.ACT now IRR.3M-go-NPST
 ‘When I come back, my son will go’ [author translation; Prompt: ‘When I come
 back, my son will leave’]
 (JL, JRB1-042-01, 00:45:26-00:45:40)

Given that IRREALIS-V-NPST/Ø inflectional marking is underspecified for modal force, this inflectional marking can be used in conditional structures which have a very remote possibility of occurrence (i.e. very weak possibility), including hypothetical future occurrences that are not expected to occur (e.g. what might be rendered as ‘future-less-vivid’ counterfactuals in especially Indo-European-focussed literature, describing conditionals with a ‘fake past/future-in-the-past’), displayed in examples (10.4) and (10.5).

- 10.4) *if akən akə-məly-məlyangka-Ø*
 if NEUT.that IRR.12A(?)-REDUP-play-USP
ak-alyba-rna=m=lhanga cake=a kamb nəngkə-rna
 IRR.12A(?)-eat-NPST=MUT=ABL NEUT.cake=PF then 2-this
amandhang kə-wən-əm-dhe-na=ma akəna
 truly IRR.3M-win-TRSVR-BLI-NPST=MUT NEUT.that
 Context: A boy asks his friend what he’s doing tonight, his friend replies that he’s
 going to eat lots of cake, and his friend replies back that ‘if there were to be a cake
 eating competition [i.e. if we’re playing [a game] and [then] eating cake], then
 clearly you would win’
 (JL, JRB1-086-01, 00:08:01.00-00:08:16.00)

- 10.5) *əmba arnəngkwaya nəng-arn kə-mnyengke-na=manj volleyball=a*
 but tomorrow 1-this IRR.1-play-NPST=LOC volleyball=PF
en amamərɾa ngarnəng kə-ngwədhangma-Ø, merrək
 NEUT.this NEUT.finger(?) again IRR.NEUT-be.open-USP VEG.blood
kəmu-kəlharr-na=maka

IRR.VEG-flow-NPST=EVIT

Context: The boy has hurt his finger, his friend asks him if he will play volleyball tomorrow, given his injury the boy replies that he won't play volleyball tomorrow, because if he were to play volleyball tomorrow, the cut on his finger would open up and bleed again

(JL, JRB1-086-01, 00:06:58.00-00:07:13.00)

Past temporal marking is rejected in expressing the hypothetical future readings (as in examples (10.4) and (10.5)), with non-past inflectional marking the only temporal marking that can be used to express these future-less-vivid constructions (as in example 10.6). This is in contrast to some languages (e.g. particularly Indo-European languages), in which counterfactuality is expressed via temporal morphemes that (in such contexts) do not exhibit their regular temporal meaning. In counterfactual future contexts, for example, a past morpheme might not be used to yield temporal interpretation, but rather in this particular morpho-syntactic environment be used as part of a strategy to express counterfactuality. In English, for instance, the simple past occurs in future-less-vivid constructions, despite the fact that the accessibility relation is after the utterance time (e.g. 'If I were to go to the concert tomorrow, I wouldn't get my assignment done in time'). However, as displayed in example (10.4), and the unacceptability of (10.6), in Anindilyakwa IRREALIS-V-PST marking indicates that the temporal anchoring of the accessibility relation occurs before utterance time, while IRREALIS-V-NPST/Ø/POT with future temporal readings or where the temporal anchoring of the accessibility relation occurs after utterance time.

10.6) **amba* *arnəŋkwaya* *nəŋ-arn* *kə-mnyengke-nə=manj* *volleyball=a*
but tomorrow 1-this IRR.1-play-PST=LOC volleyball=PF
en *amamərɾa* *ngarnəŋ* *kə-ngwədhangma-Ø,* *merrək*
NEUT.this NEUT.finger(?) again IRR.NEUT-be.open-USP VEG.blood
kəmə-kəlarr-na=maka

IRR.VEG-flow-NPST=EVIT

'If he were to play volleyball tomorrow, the cut on his finger would open up and bleed again'

(JL, JRB1-086-01)

Regular negation occurs in open conditionals when it is possible, probable or intended that the event denoted by either the antecedent or consequent clause will not actualise, marked with the NEGATIVE NON-PAST circumfix (examples 10.7 and 10.8). When the antecedent is marked with the =*manja* LOCATIVE clitic, as with all clitics in Anindilyakwa, it attaches to the NEGATIVE particle *nara*¹²⁴ rather than the verb in negative clauses.

10.7) *nara=manja* *n-akəna* *nenəngkwarba* *a-lhəka-ma* *kemba*
 NEG=LOC 3M-that 3M.man NEG.NPST-go-NEG.NPST then
akə-rrak-ajiya=ma *yakwujina*

IRR. 12A-forehead-stand.NPST=MUT there

‘If he doesn’t come, they will sit there’ [author translation; Prompt: ‘If he doesn’t come, they will sit there’]

(JL, JRB1-044-01, 00:26:35-00:26:46)

10.8) *ngayuwa* *kə-lhəwrradh-Ø-manja* *y-akəna* *yinuwangbaka* *nara*
 1.PRO IRR. 1-return-USP=LOC MASC-that MASC.giant.clam.shell NEG
a-lybar-ma

NEG.NPST-eat-NEG.NPST

‘When I come back, he won’t be eating clams’ [author translation; Prompt: ‘When I come back, my son will not be eating the clams, he will not be in the process, right as I come, I’m sure I won’t find him eating the clams, how could you say when I come back he won’t be eating the clams’]

(JL, JRB1-042-01, 00:47:07-00:47:19)

10.1.2 Foreclosed (counterfactual) conditionals

Counterfactuals are grammatical constructions that express that the situations they denote are contrary to fact. This section is concerned with foreclosed (counterfactual) conditionals (but see §9.4.2 for other expressions of counterfactuality).

Counterfactual conditionals in Anindilyakwa are expressed through IRREALIS-V-PST inflectional marking, in both antecedent and consequent clauses (as in (10.9)). As with other

¹²⁴ Note the double negation that occurs with the expression of non-past negation (the NEGATIVE particle *nara* + the inflectional the NEGATIVE NON-PAST circumfix), which does not result in an affirmative proposition.

counterfactuals in Anindilyakwa, IRREALIS-V-PST marking is the only grammatically acceptable inflectional marking, with IRREALIS-V-Ø marking disallowed (see §9.2.1.2.2 and §9.4.1.2 for further details regarding phonologically Ø marking in the [+3] slot of the verbal template).

- 10.9) *dh-akəna kəŋga-ma-ŋə=mərɾa kembirra arakba*
 3F-that IRR.1>3F-take-PST=MUT then COMPL.ACT
ki-yengbi-nə=ma ngayuwa
 IRR.1-speak-PST=MUT 1.PRO
 ‘Had I married her, then I could have spoken to her’ [source translation]
 (van Egmond 2012: 220)

Like other conditionals, counterfactual conditionals are generally marked with the =*manja* LOCATIVE clitic on the antecedent clause, as in example (10.9). However, this is not obligatory, and the conditional can be expressed through simple juxtaposition of the two clauses as in example (10.10).

- 10.10) *k-ambilyu=manj ngəwa yakwujina k-embərrarə-n=manja*
 IRR.3M-stay.PST=LOC continue here IRR.3A-wait-PST=LOC
kab-warda-ŋə=ma kenu-warda-ŋə=ma
 IRR.3A>2(?)-hit-PST=MUT IRR.3A>3M-hit-PST=MUT
 ‘If he had waited, they would have killed him’ [author translation]
 (JL, JRB1-044-01, 00:32:28-00:32:37)

Counterfactual conditionals often take the EVITATIVE =*maka* clitic on either the antecedent or consequent clause, as in example (10.11). The EVITATIVE is not essential for expressing the counterfactual meaning of the construction, and its role in these structures is examined in §10.3.

- 10.11) *ngayuwa kə-mlyengke-n=manja burrbul yarrungkwa*
 1.PRO IRR.1-play-PST=LOC NEUT.football yesterday
arakba k-ingkelyu-dhu-nə=mak ngayu=dha
 COMPL.ACT IRR.1-wet-INCH-PST=EVIT 1.PRO=TRM

Context: A boy didn’t play football yesterday, because it rained. His friend asks

him about it, and the boy explains that ‘if I had played football, I would’ve gotten wet’

(JL, JRB1-086-01, 00:05:51.00-00:05:59.00)

Compare, for instance, examples (10.12) – (10.14) where the counterfactual conditional is expressed through juxtaposition of the two clauses in (10.12), is made more explicit through the inclusion of =*manja* LOCATIVE case clitic in (10.13), and occurs with the =*maka* EVITATIVE clitic, expressing the undesirability of the event in (10.14).

10.12) *kəng-eburra-nə=m* *ngəwa* *amiyerra* *dh-akəna* *dhədharrəngka*

IRR.3F-wait-PST=MUT continue long.time 3M-that 3M.woman

kəng-warda-ngə=ma

IRR.3F>3M-hit-PST=MUT

‘If he waited for a long time, that girl would’ve killed him’ [author translation;

Prompt: ‘If he waited, that girl would kill him’]

(JL, JRB1-044-01, 00:29:53-00:30:01)

10.13) *kəng-eburra-nə=manja* *ngəwa* *amiyerra* *dh-akəna* *dhədharrəngka*

IRR.3F-wait-PST=LOC continue long.time 3M-that 3M.woman

kəng-warda-ngə=ma

IRR.3F>3M-hit-PST=MUT

‘If he waited for a long time, that girl would’ve killed him’

10.14) *kəng-eburra-nə=maka* *ngəwa* *amiyerra* *dh-akəna* *dhədharrəngka*

IRR.3F-wait-PST=EVIT continue long.time 3M-that 3M.woman

kəng-warda-ngə=ma

IRR.3F>3M-hit-PST=MUT

‘If he waited for a long time, that girl would’ve killed him’

If the antecedent is a condition that is accepted as not having occurred (contrary to the actual world), it is expressed by a regular negative clause (as in examples (10.15) and (10.16)).

10.15) *nara=manja* *yarna* *yik-embirrari-na* *amiyerra* *kemba*
 NEG=LOC 1A.this IRR.1A-wait-PST long.time then
arngk-ambilyuma=ma *arakba* *yikə-lhəke-nə=ma* *Yijiba=lhangwa*
 time-two=EMPH COMPL.ACT IRR.1A-go-PST=MUT Egypt=ABL
yarna=dha
 1A.this=TRM
 ‘If we hadn’t waited so long we could have been to Egypt twice by now’ [source translation]
 (Bible Society in Australia 1992: 361)

10.16) *n-aka* *nara=manja* *kənə-lhəka-rna* *yakujungwa*
 3M-this NEG=LOC IRR.3M-go-PST there
ak-angməkaya-ng=dha
 IRR.12A-sit.together-PST=TRM
 ‘If he hadn’t come, they would have sat there’ [author translation; Prompt: ‘If he hadn't come, they would have sat there’]
 (JL, JRB1-044-01, 00:26:49-00:26:55)

10.2 Intentionality and volition

There are two primary ways to express intentionality and volition in Anindilyakwa; the IRREALIS-V-PST/NPST/Ø=PURP construction, whose core meaning involves intentionality, and the verb *-ngiyendhe-* ‘want’, whose core meaning involves volition. However, neither of these devices are so clear cut. The IRREALIS-V-PST/NPST/Ø/POT=PURP construction, in particular, is complex, expressing a range of related readings, involving frustrative, proximative, and narrowly averted readings. The verb *-ngiyendhe-* ‘want’ also is more complex than a simple volitional marker, and is also involved in intentional readings. I focus first on =PURPOSIVE constructions in §10.2.1, before examining the *ngiyendhe-* ‘want’ in §10.2.2.

10.2.1 =yedha PURPOSIVE constructions

10.2.1.1 Overview of the =yedha PURPOSIVE

The =yedha PURPOSIVE clitic attaches to any part of speech (aside from interjections). It can follow case marking clitics (including grammatical case markers), and like the QUANTIFICATIONAL and PERLATIVE clitics, it can attach to verbs in a main clause (unlike the other case marking clitics, which occur only with a subordinating function). It occurs with obligatory IRREALIS-V-PST/NPST/Ø marking when attached to a verbal predicate (but is disallowed with IRREALIS-V-POT marking).

The =yedha PURPOSIVE occurs most frequently in subordinate clauses, attaching to nominals (10.17) and verbs ((10.18) and (10.19)) in order to express that the PURPOSIVE-marked event is the purpose or goal, either at a past (example 10.19) or future (examples 10.17 and 10.19) reference time. The PURPOSIVE clitic often co-occurs with the particle *kajungwa* (which occurs in clause-initial position) in these subordinate clause constructions, as in example (10.19).

Unlike some of the case marking clitics, the PURPOSIVE (along with the EVITATIVE) occurs without the subordinating =ma ~ =mər̥ra suffix (i.e. =ma ~ =mər̥ra + =yedha PURP is incompatible) (see §2.5).

- 10.17) *yi-lhaka-ja* *arakba* *nganyangwu=wa* *angalya*
 DEON.12-go-NPST COMPL.ACT 1.PRO.POSS=ALL NEUT.place
anhangi=yedha
 NEUT.food=PURP

‘Let us go to my house and eat’ [i.e. ‘Let’s go to my house for food’] [source translation]

(Bible Society in Australia 1992: 677)

- 10.18) “*kembirra* Ø-*yengbi-na* *yakə-lhaka-ji=yedha* *arakba*”
 then DEON.2-speak-NPST IRR.12-go-NPST=PURP COMPL.ACT
yingi-yama-Ø
 REAL.3F-say-PST

“‘Then speak up [big sister] so that we can go now’ she said’
 (AA, A3369a Side2, a3.11 Yingarna-langwa ‘Story about a snake’)

- 10.19) *nuw-awiyebe-yi-nə=ma* *wurr-akəna* *kajungwa* *w-arniba*
 REAL.3A-enter-RECIP-PST=MUT 3A-that so.that 3A-alive
kuw-ambilyi=yedha
 IRR.3A-stay.PST=PURP
 ‘They went in to keep alive’
 (Bible Society in Australia 1992: 42)

While the PURPOSIVE most frequently occurs in subordinate clauses, it can also attach to main verbal predicates (like the PERLATIVE =*lhangwiya*, QUANTIFICATIONAL =*wiya* and EVITATIVE =*maka*, but unlike the case marking clitics). IRREALIS-V-NPST=PURP inflected verbs express intent (as in example 10.20), while IRREALIS-V-PST=PURP inflected verbs express unfulfilled intentions and failed attempts (as in example 10.21). These usages and readings are examined further in §10.2.1.2.

- 10.20) *amandhangwa* *nəngi-yamə-na=ma,* *wurru-mərndak-ibəna* *warnumamalya*
 truly REAL.1-do-NPST=MUT 3A-many-that.same 3A.people
ka-lhəke-ni=yedha *warnəng-adhənuḃə=wiyə* *nganyangwu=wa* *angalya*
 IRR.3A-go-NPST=PURP 3A.M.ALP-soon=QUANT 1.PRO.POSS=ALL NEUT.place
nara *arakba* *wurr-akəna* *a-lyubaru-ma* *ena*
 NEG COMPL.ACT 3A-that NEG.NPST-eat-NEG.NPST NEUT.this
anhənga *nganyangwa*
 NEUT.food 1.PRO.POSS
 ‘None of those people who [are] supposed to come to my home will eat any of this food’ [i.e. ‘None of those people who intend to come to my home...’] [source translation]
 (Bible Society in Australia 1992: 735)

- 10.21) *kembirra* *dh-akəna* *dhəngarna* *kənənga-ma-ngi=yedha*
 then FEM-that FEM.snake IRR.3M>FEM-take-PST=PURP
n-akəna *warniyerringka kənənga-warda-ngi=yedha* *akwalya*

3M-that 3A.old.man IRR.3M>FEM-kill-PST=PURP NEUT.meat

kənəŋga-wilyaka-Ø=dha

IRR.3M>FEM-take-PST=TRM

‘The old man was going to take the snake and kill it and take it with him [but because it had eaten those dogs he left the snake lying there]’

(GL, A3369a Side1, a3.5 Dingarna-langwa akwa wurruwarda-langwa ‘Snake and a dog’)

The PURPOSIVE is commonly found with nominalised verbs, in contrast to most other case marking clitics, which do not occur with nominalised verbs.¹²⁵ Finite verbs with the PURPOSIVE and non-finite nominalised verbs with the PURPOSIVE appear to be interchangeable, in both main (examples (10.22) and (10.23)) and subordinate (examples (10.24) and (10.25)) clauses. If there is any semantic distinction that exists between the two it is not obvious at this stage, and will be left to further research to examine in more detail.

10.22) *dh-aka dhadhiyara kəŋgəni-yardhe-ni=yedha n-akəna*

3F-this 3F-girl IRR.3F>3M-marry-NPST=PURP 3M-that

adhənuba

soon

‘This girl is to marry him soon’ [i.e. the girl intends to/has the intent to marry him soon] [source translation]

(Stokes n.d.-b: 75)

10.23) *dh-aka dhadhiyara dh-adhu-kwi-yardhi=yedhan-akəna*

3F-this 3F-girl 3F-F-NSR-marry=PURP 3M-that

adhənuba

soon

‘This girl is to marry him soon’ [source translation]

(Stokes n.d.-b: 75)

¹²⁵ Aside from the PURPOSIVE, the ABLATIVE =*hangwa* (when expressing intention), REASON =*baba* and EVITATIVE =*maka* clitics can attach to nominalised verbs.

10.24) *arakba=wiya nara=wiya wurrə-mangedhərra=lhangwa*
 COMPL.ACT=QUANT NEG=QUANT 3A-white.person=ABL
angura, warnumamalya na-mambə-mam+baji-nə=ma miyanga
 NEUT.fire 3A.people REAL.3A-REDUP-hands+hit-PST=MUT VEG.firesticks
kajungwa ka-lhərakə-nə=yedha angura
 so.that IRR.3A-light.fire-PST=PURP NEUT.fire
 ‘A long time ago before white people brought matches and lighters, our people
 used to rub firesticks to light a fire’ [constructed]
 (based on Groote Eylandt Linguistics 1993: 198)

10.25) *arakba=wiya nara=wiya wurrə-mangkadhərra=lhangwa*
 COMPL.ACT=QUANT NEG=QUANT 3A-white.person=ABL
angura, warnumamalya na-mambə-mam+baji-nə=ma miyanga
 NEUT.fire 3A.people REAL.3A-REDUP-hands+hit-PST=MUT VEG.firesticks
kajungwa warnə-kə-lhəraki=yedha angura
 so.that 3A.M-NSR-light.fire=PURP NEUT.fire
 ‘A long time ago before white people brought matches and lighters, our people
 used to rub firesticks to light a fire’
 (Groote Eylandt Linguistics 1993: 198)

As with all clitics, in negated clauses the PURPOSIVE attaches to the NEGATIVE adverbial rather than the verb, as in example (10.26).

10.26) *nari=yedha nəngk-ena mema=lhangwa mamurukwa*
 NEG=PURP 2-this VEG.this=ABL VEG.road
a-lhəka-ngəma pass enena=lhangwa through angalya,
 NEG.NPST-go-NEG.NPST pass NEUT.this=ABL through NEUT.place
yakwujina=wiya nəngk-akəna Ø-arjiyi-nga-Ø=ma
 there=QUANT 2-that DEON.2-stand-Cofs-USP=MUT
yina=lhangwa=baba wurru-mərndakeyina warnumamalya!
 1M.DU.PRO=POSS=REAS 3A-these 3A.people
 ‘You are not going to go along this road [and] pass through this place, just stand
 there, because these people are ours!’

(JL, A3369b Side1, a4.2 Jigagwa-langwa-langwa daburradikba akwulyangburarka ‘Her daughter’s dream’)

The readings of the PURPOSIVE with the different possible inflectional affixes it can combine with in independent and dependent clauses are outlined in Table 10.2. The PURPOSIVE constructions in independent clauses are examined in more detail in §10.2.1.2.

	Independent clause	Dependent clause
nominal.prefix-NSR-V=PURP	intent (intent to <i>P</i> , be supposed to <i>P</i> , be ready to <i>P</i>)	purpose (for <i>P</i> , in order to <i>P</i>)
IRR-V-NPST=PURP	intent (intent to <i>P</i> , be supposed to <i>P</i> ; proximative (be ready to <i>P</i> , be about to <i>P</i>))	
IRR-V-PST=PURP	intent (intent to <i>P</i>); frustrative (be going to <i>P</i> , but $\neg P$); narrowly averted; (almost <i>P</i> , but $\neg P$); proximative (be about to <i>P</i>)	
IRR-V-USP=PURP	intent (intent to <i>P</i>), narrowly averted (almost <i>P</i> , but $\neg P$)	

Table 10.2 Possible readings of PURPOSIVE marked finite and non-finite (nominalised) verbs, in independent and dependent clauses

10.2.1.2 Independent PURPOSIVE clauses

While the PURPOSIVE in subordinate clauses expresses that the event is the purpose or goal of the main verb, in main clauses PURPOSIVE marked verbs express bouletic (i.e. “intention”) or deontic modality. With NON-PAST inflected verbs, future plans/intention are expressed, while with PAST inflected verbs, failed intention (incl. frustratives, narrowly averted readings) are expressed. These constructions are examined in detail in §§10.2.1.2.1-10.2.1.2.3, followed in §10.2.1.2.4 by a discussion and synthesis of the various TAM meanings expressed by PURPOSIVE constructions, and possible paths of development of these different semantic readings.

Non-past PURPOSIVE

IRREALIS-V-NPST=PURP inflected verbs in main clauses primarily expresses bouletic modality (i.e. what the speaker intends). This is used predominately to express the intention of the speaker to undertake events, in the planning of events, etc.

The PURPOSIVE clitic can attach to IRREALIS-V-Ø marked verbal predicates, in which (as is the case in general with IRREALIS-V-Ø marking) it is inferred that the temporal anchoring of the accessibility relation occurs after the utterance time (as in example 10.27), unless in a complex clausal construction. In complex constructions involving conditional structures, and in purposive/volitional structures (involving the =*yedha* PURPOSIVE clitic or volitional verb -*ngiyendhe*- ‘want’), IRREALIS-V-Ø can occur with past temporal readings, when one of the neighbouring clauses takes overt IRREALIS-V-PAST marking, and thus a past temporal frame is inferred for the IRREALIS-V-Ø marked verb.

IRREALIS-V-POT=PURP marking is disallowed. This may be due to haplology, where the POTENTIAL -*ya* followed by the PURPOSIVE =*yedha* is phonologically dispreferred.

- 10.27) *kə-me-ni=yedha* *ayika* *akwa kənə-ngaji-Ø=yedha*
IRR.1>NEUT-take-NPST=PURP NEUT.tree and IRR.1>MASC-kill-USP=PURP
yərुकudhəlhangwa
MASC.bandicoot
‘I plan to grab a stick and to kill bandicoot’
(Leeding 1989: 488)

- 10.28) *abərr-aja* *warnumamalya karri-lhung+kuwabiji-ni=yedha*
3A.PRO-CofR 3A.people IRR.3A>NEUT-grow-NPST=PURP
anhənga-mərriya *arakba* *ngarningka enena=manja* *angalya*
NEUT.food-the.rest COMPL.ACT again NEUT.this=LOC NEUT.place
‘People will grow food again in this world’ [i.e. ‘People intend to/plan to grow food again now, in this place’] [source translation]
(Bible Society in Australia 1992: 51)

- 10.29) *nəng-ene=ka* *arakba* *kembirra* *nəngi-ngiyendhe-na=ma*
1-this=EMPH COMPL.ACT then REAL.1-want-NPST=MUT

nari=yedha *nəng-eniba* *a-mbilyu-ma* *əmba*
 NEG=**PURP** 1-alive NEG.NPST-stay-NEG.NPST but

ki-jungwu-ni=yedha

IRR.1-die-NPST=**PURP**

‘Now I want to die and not live any longer’ [i.e. ‘I do not want to live, but rather I plan to die’] [source translation]

(Bible Society in Australia 1992: 456)

While it is assumed that the event will occur, this assumption can be cancelled, as in example (10.30).

10.30) *n-akəna* *nganyangwa* *nabə-rraka*
 3M-that 1.PRO.POSS 3M.son-1.KIN
kənə-marəkwarəkə-n=yedh *n-akən* *mamurukwa* *akena*
 IRR.3M>VEG(?)**-cross-NPST=PURP** 3M-that VEG.road but
əbəbanu=wiya *diraka* *mamuruk=manja*
 NEUT.many=**QUANT** VEG.car VEG.road=**LOC**
nəm-angkərre-na=ma *nəmə-bərru-wərrikey-na=ma* *akwa*
 REAL.VEG-run-NPST=**MUT** REAL.VEG-??**-cross-NPST=MUT** and
nə-lyangmurdha-Ø
 REAL.3M-give.up-**USP**

‘My son is trying to cross the road [i.e. it’s his intention to cross the street], but there are too many cars driving on the road, and so he gave up’ [author translation; Prompt: ‘Your son is trying to cross the street, he's trying really hard, but *nara*, there's too much traffic, he can't cross, how could you say that?']

(JL, JRB1-042-01, 00:22:04-00:22:21)

In addition to intentionality, IRREALIS-V-Ø=**PURP** marked main clauses can express the notion of anticipation and imminence (‘be ready to’/ ‘be about to’), as in example (10.31). This anticipatory reading can also be expressed by the nominalised form marked with the **PURPOSIVE** (example (10.32)).

- 10.31) *n-akəna kenə-mən-engkərrəkaji-Ø=yedha ayakwa*
 3M-that IRR.3M-BENE-obey-USP=**PURP** NEUT.language
nungkwa=lhangwa akwa nə-lharrka-Ø=ma
 2.PRO=POSS and REAL.3M>NEUT-send-USP=MUT
a-mərndak-enena nungkwa=lhangwi=yedha
 NEUT-many-this 2.PRO=POSS=**PURP**
 ‘He is ready to obey you [he is ready to obey your word, and send your word
 around to others...] [source translation]
 (Bible Society in Australia 1992: 266)

- 10.32) *nenu-ku-kwi=yedha mirrijina ngakwurruwu=manja*
 3M-NSR-give=**PURP** NEUT.medicine 12A.PRO=LOC
 ‘He is ready to give us the medicine’ [source translation]
 (Stokes n.d.-b: 127)

The PURPOSIVE in main clauses is also compatible with deontic modal readings; where the subject is obliged to carry out the event. As was demonstrated in §9.4.1, the IRREALIS paradigm can express deontic modality, however in combination with the PURPOSIVE clitic, a weaker deontic reading is expressed, involving both deontic and bouletic modality (e.g. ‘they should intend to *P*’/ ‘they are supposed to *P*’), as in examples (10.33) and (10.34).

The interaction between purposive and deontic marking displayed by purposive markers is not an unusual property displayed by Australian languages. For example, in Mparntwe Arrernte (Pama-Nyungan, Arandic) the purposive suffix *-tyeke* in main clauses can express ‘the sense that the... [subject/agent] ‘must’ or ‘should’ do the verb action’ (Wilkins 1989: 236).

- 10.33) *ngaya nəngi-yami-na=ma n-ibina nenəngkwarba*
 1.PRO REAL.1-do-NPST=MUT 3M-that.same 3M.man
kənə-lhawurraka-ji-ni=yedha arəma angwarnda
 IRR.3M-return-CAUS-NPST=**PURP** NEUT.big NEUT.rock [=money]
enuwa=wa kənə-lyelyingmi-na=ma angwurra n-akəna
 3M.PRO=ALL IRR.3M-love-NPST=MUT INTS 3M-that
 ‘I think the man who [is] supposed to pay back a lot of money would love him

more [because he forgave him a lot more]’ [source translation]
 (Bible Society in Australia 1992: 596)

- 10.34) *amandhangwa nāngi-yamə-na=ma, wurru-mərndak-ibəna warnumamalya*
 truly REAL.1-do-NPST=MUT 3A-many-that.same 3A.people
ka-lhəke-ni=yedha warnəng-adhənuḃə=wiya nganyangwu=wa angalya
 IRR.3A-go-PST=PURP 3A.M.ALP-soon=QUANT 1.PRO.POSS=ALL NEUT.place
nara arakba wurr-akəna a-lyubaru-ma ena
 NEG COMPL.ACT 3A-that NEG.NPST-eat-NEG.NPST NEUT.this
anhənga nganyangwa
 NEUT.food 1.PRO.POSS

‘None of those people who [are] supposed to come to my home will eat any of this food’ [i.e. ‘None of those people who intend to come to my home...’] [source translation]

(Bible Society in Australia 1992: 735)

This IRR-V-NPST=PURP construction can also occur with hortative speech acts, as in examples (10.35) and (10.36).

- 10.35) *kembirra abərn-aja ken-akuma-jungwu-ni=yedha wun-alh-akəna*
 then 3M.DU-CofR IRR.3M.DU-put-REFL-NPST=PURP 3M.DU-DU-that
abərna=lhangwa wurri-yukwayuwa wurr-ababərna
 3M.DU=ABL 3A-small 3A-many

‘May they have many children [and many descendents]’ [source translation]

(Bible Society in Australia 1992: 410)

- 10.36) *akwa yikabu-mənə-rrəngkə-ni=yedha nungkwurra=lhangwa*
 and IRR.3A>2A-BENE-see-NPST=PURP 2A.PRO=POSS
karnə-makwulya:::wu!
 2A.M-skin:::XTD

‘Let them see your skin!’ [source translation]

(Bible Society in Australia 1992: 772)

Past PURPOSIVE

As with non-past temporal readings, PURPOSIVE marked constructions in past temporal contexts also express bouletic modality, indicating the intentionality of the subject/agent of the clause, as in example (10.37). These constructions are often translated into English by Anindilyakwa speakers as ‘was going to *P*’, ‘wanted to *P*’, etc.

- 10.37) *n-akəna* *kə-rrak-aje=yedha* *chair=manja* *ekena*
3M-that IRR.3M-forehead-stand.PST=**PURP** NEUT.chair=LOC then
dh-akəna *dhədharrəŋka* *yingmən-angma-Ø=dhə* *akən*
3F-that 3F.woman REAL.3F>VEG(?)-steal-USP=TRM NEUT.that
chair=a
NEUT.chair=PF

‘He was going to sit on the chair, but the woman took it away’ [author translation;
Prompt: ‘He was going to sit down, but this woman took his chair’]
(JL, JRB1-044-01, 00:01:46-00:01:58)

In future temporally anchored situations, there is an assumption that the intention will be acted upon, and the event carried out. In past temporal contexts, however, the assumption is the opposite; that the event did not eventuate. This frustrative construction is often made more explicit through being followed by a second clause outlining the “frustrating circumstance” which prevents the expected event from taking place (Kroeger 2017: 15), as in example (10.38). Alternatively, while there is the implication that the event did not occur, this can be cancelled as in example (10.39).

- 10.38) *yarrungkwa n-akəna* *kənə-runga-n=dha*
yesterday 3M-that IRR.3M>NEUT-??-PST=TRM
kənə-kwarra-ng=yedh *akəna* *amamərarra* *kena*
IRR.3M>NEUT-break-PST=**PURP** NEUT.that NEUT.branch however
nə-lyangməradha-Ø
REAL.3M-give.up-USP

‘Yesterday he was going to break the branch, however he gave up’ [author translation;
Prompt: ‘*yarrungkwa*, he was trying to break the branch, but *nara*, he

couldn't make it']

(JL, JRB1-042-01, 00:23:21-00:23:33)

10.39) *n-akən* *kənə-kwarra-ngi=yedh* *akəna* *amamərarra*
3M-that IRR.3M>NEUT-break-PST=**PURP** NEUT.that NEUT.branch
ayika *ekena* *nə-kwarra-Ø=dha*
NEUT.tree however REAL.3M>NEUT-break-USP=TRM

‘He was going to break the branch, however he broke it’ [author translation;

Prompt: ‘He was trying to break the branch, and he succeeded, he broke it’]

(JL, JRB1-042-01, 00:23:40-00:23:47)

As was observed in Chapter 9, we find similar readings indicating frustrative readings (expressing the non-fulfillment of speaker/agent intentions) with simple IRREALIS + PAST marked verbs, as in example (10.40) (i.e. without the =*yedha* PURPOSIVE clitic).

However, I suggest that such examples (i.e. IRREALIS-V-PAST) don’t express the intentionality carried by the IRREALIS-V-PAST=**PURP** construction. While IRREALIS-V-PAST=**PURP** constructions express unrealised intention readings, arising from a circumstantial modal base (where the accessible worlds are those worlds where relevant circumstances of the reference world hold true) and an ordering source based on the ‘ideal list’ of the agent (Grosz 2011), including the agent’s wishes/intentions (Kroeger 2017: 15), the frustrative reading without the PURPOSIVE clitic rather expresses an unrealised, frustrated expectation, arising from an epistemic modal base (where the accessible worlds are those which are consistent with what is known about the reference world) and a stereotypical ordering source (where the highest-ranked worlds are those in which the expected course of events is followed, given the known facts) (Kroeger 2017: 15), thus giving rise to an expectation that the event would take place, rather than the intention of the agent that the event would take place. I suggest this is the case with the IRREALIS-V-PAST=**PURP** construction.

10.40) *n-akən* *kən-alybə-rnə=dh* *akəna* *anhəng-mərriyak*
3M-that IRR.3M>NEUT-eat-PST=TRM NEUT.that NEUT.food-the.rest
anhənga *akena* *en=lhangwa* *dhərndiy-əniba*
NEUT.food however 3M.PRO=POSS 3F.mother-3M.KIN
yingə-nə-mərraka-ju-wa

REAL.3F-3M-take-CAUS-PST

‘He was going to eat that food, but his mother took it away from him’ [author translation]

(JL, JRB1-044-01, 00:02:31-00:02:44)

In combination with the *kureya* particle ‘try’ IRREALIS-V-PAST=PURP marking can occur in order to express frustrative readings, whereby the subject attempts (but fails) to carry out an event, as in (10.41).

- 10.41) *en-eja*, *abərn-aja* *wun-alh-akəna*
3M.PRO-CofR 3M.DU.PRO-CofR 3M.DU-DU-that
nenə-be-yi-na *kureya* *kenə-ngaje-yi-ni=yedha*
REAL.3M.DU-quarrel-RECIP-PST try IRR.MASC>3M-hit-RECIP-PST=**PURP**
y-ibina *Yingarna=dhangwa* *??nenə-wakuwilya-ngə=mərri*
MASC-that.same MASC.snake=EMPH REAL.MASC>3M-go.towards??-PST=MUT
‘But those two kept on arguing and that Snake tried to fight with that man, he came towards him but that man just moved back’
(AA, A3369a Side2, a3.11 Yingarna-langwa ‘Story about a snake’)

As was discussed earlier regarding non-past readings involving the PURPOSIVE, IRREALIS-V-PAST=PURP marking, in addition to expressing intentionality, can be used to highlight the notion of imminence (e.g. ‘be about to’), as in example (10.42). While this marking does not imply that the event did not eventuate, it often occurs in contexts involving the non-actualisation of an imminent event (e.g. ‘*P* nearly occurred’), as in (10.43) and (10.44).

- 10.42) *ayakwa* *ngayambulhangwa* *ki-yengbi-ni=yedha*
NEUT.language 1.PRO.SEQ IRR.1-speak-PST=**PURP**
‘I was about to speak in my turn’ [source translation]
(Stokes n.d.-b: 76)

- 10.43) *nganyangwa* *nabə-rraka* *kənə-lhəka-rni=yedha* *akena*
1.PRO.POSS 3M.son-1.KIN IRR.3M-go-PST=**PURP** but
enlhangwa *nenmamalya* *n-angkarr-Ø* *angaluba*

3M.PRO.POSS 3M.person REAL.3M-run-USP from.over.there
dirak=uma akwa ni-yama-Ø ni-yengba-Ø
 VEG.car=INST and REAL.3M-speak-USP REAL.3M-talk-USP
nenu-maka-Ø nungkuwa Ø-ambilya nara
 REAL.3M>3M-say-USP 2.PRO DEON.2-stay.NPST NEG
a-lhaka-ma
 NEG.NPST-go-NEG.NPST

‘My son nearly left, however a man came from over there in a car and told him
 “stay, don’t go”’

stay’ [author translation]

(JL, JRB1-075-01, 00:10:40.510-00:11:02.885)

10.44) *n-akəna Renato=a kən-alyba-rni=yedha pie=a akena*
 3M-that Renato=PF IRR.3M-eat-PST=PURP NEUT.pie=PF but
arəm=baba adhərruwan=bab- adhərruwarna adhərruwan=bab
 NEUT.big=REAS NEUT.big=REAS NEUT.big NEUT.big=REAS
akəna pie=a adhərruwan akən pie=a kemba
 NEUT.that NEUT.pie=PF NEUT.big NEUT.that NEUT.pie=PF then
nara kən-alyba-rna
 NEG IRR.3M-eat-PST

‘[Renato nearly managed to eat the pie, but] ‘it’s too much for him, [so he couldn’t
 eat it]’ [speaker translation; Prompt: ‘He nearly managed to eat that pie’]

(JL, JRB1-075-01, 00:15:25.905-00:16:12.230)

Such readings, which indicate that the event was on the point of occurring, yet did not occur, have been found to often be expressed by verbal periphrastic constructions involving a main verb and another verb, adposition, or affix, across many genetically and geographically related and unrelated languages (Kuteva 1998: 115).

In some other Australian languages, the PURPOSIVE appears to express similar readings as described above in Anindilyakwa. In related eastern Gunwinyguan language Wubuy, a ‘Past Potential verb’ can take the PURPOSIVE suffix *-yungguuyung*, in order to express the senses of ‘was going to...’ or ‘was just about to’ (Heath 1984: 345). Similarly in Mparntwe Arrernte (Pama-Nyungan, Arandic) the *-tyeke* PURPOSIVE suffix can indicate that the agent ‘intended to

do the verb action but, for some reason, never got around to doing it’ (Wilkins 1989: 236), as in example (10.45).

- 10.45) *re* *alhe-tyeke ne-rne*
 3sgS go-PURP be.p.immed
 ‘She was just about to go (but she got held up)’
 (Wilkins 1989: 236)

In Mparntwe Arrernte the *-tyeke* PURPOSIVE suffix can express both readings like those in (10.46), expressing intentionality, but also readings without any apparent sense that the agent intended to cause the event to occur, as in (10.47).

- 10.46) *re* *tnye-tyeke ne-rne*
 3sgS fall-PURP be.p.immed
 ‘She was just about to fall (but she managed to save herself)’
 (Wilkins 1989: 236)

In Anindilyakwa, on the other hand, all readings involving the PURPOSIVE express intentionality, including these narrowly averted event constructions. In order to express an event that was imminent, almost occurred, but by accident (i.e. with no intention expressed on the part of the agent), a different construction to that involving the PURPOSIVE must be used, such as the use of the temporal adverbial *adhənuba* ‘in short time’, in examples (10.47) – (10.49) (see Appendix B for further details about the *adhənuba* temporal adverbial).

- 10.47) *n-akəna* ***adhənuba*** *kən-angbilyuwa-dhə-nə=ma*
 3M-that **in.short.time** IRR.3M-sick-INCH-PST=MUT
 kən-angbilyuwa-dhə-na
 IRR.3M-sick-INCH-PST
 ‘He was almost sick’ [author translation; Prompt: ‘He was almost sick’]
 (JL, JRB1-075-01, 00:20:26.560-00:20:49.225)

10.48) *Renato n-akəna adhənu**ba** kənə-winəməndha-ngə=ma akəna*
 Renato 3M-that **in.short.time** IRR.3M-win-PST=MUT NEUT.that
akakuleyja
 NEUT.race
 ‘He [Renato] nearly won that race’ [speaker translation; Prompt: ‘Renato nearly won the race’]
 (JL, JRB1-075-01, 00:04:18.535-00:04:33.825)

10.49) *dh-akəna dhəngarrbiya adhənu**ba** kəngən-anga-Ø=ma*
 FEM-that FEM.crocodile **soon** IRR.FEM>3M-bite-PST=MUT
Renato=manja kəngən-anga-Ø=ma ekena ni-yərrma-nga
 Renato=LOC IRR.FEM>3M-bite-PST=MUT but REAL.3M-swim-PST
arrəbaja
 away
 ‘That crocodile nearly bit and killed Renato, but he swam away’ [author translation; Prompt: ‘The crocodile nearly killed Renato’]
 (JL, JRB1-075-01, 00:05:57.975-00:06:26.345)

Counterfactual conditionals obligatorily take the IRREALIS-V-PST inflectional marking (i.e. disallow IRREALIS-V-Ø marking) (see §9.2.1.1.2 and §9.4.1.2), and other past counterfactuals also almost exclusively take IRREALIS-V-PST inflectional marking. The only exception is with ‘narrowly averted’ readings of IRREALIS-V-PST/Ø=PURP marked verbs, which take either IRREALIS-V-PST=PURP or IRREALIS-V-Ø=PURP marking, as in examples (10.50) vs. (10.51). IRREALIS-V-Ø=PURP marking thus appears to occur only with non-actualised past events in contexts in which the event was imminent. This is the only context in which IRREALIS-V-Ø marking with non-actualised past events in main clauses is grammatically acceptable (i.e. IRREALIS-V-PST marking is obligatory in all other (non-actualised) past events; negated past events take only IRREALIS-V-PST marking; and non-culminating accomplishments are not compatible with the REALIS/IRREALIS-V-Ø marking).

10.50) *ngayuwa k-errikbi-ni=yedha akəna dart*
 1.PRO IRR.1-throw-PST=PURP NEUT.that NEUT.dart
nəng-errikbu-Ø=m akena nungu-kwierrba-Ø

REAL.1-throw-USP=MUT but REAL.1-miss-USP

‘I nearly threw the dart [at the dartboard], I threw it, but I missed’ [author translation]

(JL, JRB1-075-01, 00:13:04.115-00:13:32.045)

10.51) *n-aka* *nenəŋkwarba kən-errikbi-Ø=yedha* *akəna* *dart*
3M-this 3M.man IRR.3M-throw-USP=**PURP** NEUT.that NEUT.dart
ekena *nu-kwiyarra-Ø*
but REAL.3M-miss-USP

‘The man nearly threw the dart [at the dartboard] [i.e. the man intended to throw the dart at the dartboard], but he missed’ [author translation]

(JL, JRB1-075-01, 00:13:52.495-00:13:58.895)

Finally, similar to non-past temporal contexts, IRREALIS-V-PST=PURP marking in main clauses is also compatible with deontic modal readings, expressing that there was an obligation that the subject would carry out an event, but with the implication that the event was not actualised (e.g. ‘was supposed to’/ ‘was meant to’/ ‘should have’... [but didn’t]), as in example (10.52).

10.52) *kenə-beyinda-ngi=yedha* *akəna* *arngk-əmemberrkwa=mər̄ra*
IRR.3M>1-pay-PST=**PURP** but time-ten=EMPH
nu-warrukwa-Ø=ma *akəna=dha*
REAL.3M>NEUT-confuse-PST=MUT NEUT.this=TRM

‘He should have paid me but he has changed my pay ten times’ [i.e. he was meant to, but didn’t...] [source translation]

(Bible Society in Australia 1992: 249)

Synthesis of IRREALIS-V-PST/NPST/Ø=PURPOSIVE marking

As demonstrated by IRREALIS-V-PST/NPST/Ø=PURP marking in main clauses (in both past and non-past contexts), intentionality is at the core of all the readings expressed by this construction. We have seen that in non-past contexts the IRREALIS-V-NPST/Ø=PURP marking expresses future intention as well as proximative (‘about to’) readings indicating ‘a movement shortly before the possible occurrence of the given verbal situation, with no implication that

the situation did not actually occur’ (Kuteva 1998: 131). IRREALIS-V-PST=PURP marking, on the other hand, can express several different readings including frustrative ‘was going to [but didn’t]’, proximative ‘about to’, and narrowly averted ‘nearly’ readings. Such clustering of semantic functions has been observed cross-linguistically and examined by Kuteva (1998), who proposes a semantic link and development path for these different possible readings. Kuteva (1998: 148) suggests that there are two distinct grammaticalization patterns identifiable across languages with respect to volitional/intentional verb structures, one involving the proximative, and the other the narrowly averted, and that these two development paths can intersect as a result of the narrowly averted gram generalising to a proximative.

Kuteva (1998) suggests that non-past volitional-intentional structures can develop into proximatives, demonstrating this with a range of genetically and geographically unrelated languages (e.g. the Modern Bulgarian volitional verb *isk-*, which has developed into a proximate construction (Kuteva (1998)).

Furthermore, Kuteva (1998) suggests that volitional-intentional structures can develop into frustrative (‘was going to [but didn’t]’) constructions, and then to narrowly averted (‘nearly happened’) readings, as described in Table 10.3.

Stage	Type of Event Schema	Contextual Attributes
0. Past volition	Person X wanted item Y	(Y refers to a concrete item)
I. Past volition/intention	Person X wanted to do Y	(Y refers to a dynamic situation)
II. Counterfactual	X was going to undergo Y but Y does not take place	(Y is a potential but unrealized event)
III. Narrowly averted	X was about to undergo Y but Y does not take place	(X was close to entering situation Y but Y does not take place)

Table 10.3 Stages in the development from past volition/intention to narrowly averted events (Kuteva 1998: 139)

Kuteva (1998: 130) suggests that ‘there are both diachronic and synchronic reasons for regarding the proximate and... [avertives] as two distinct grams’, but that there is a plausible explanation for the polyfunctionality of forms exhibiting both proximative and narrowly averted readings, and that the development of narrowly averted grams to proximatives,

whereby the narrowly averted gram loses certain specificities of its meaning (i.e. counterfactuality), is well-attested across various languages (Kuteva 1998: 146). This is simplistically diagrammatically outlined in Figure 10.1.

Non-past volitional-intentional structure → ... → Proximative

Past volitional-intentional structure → ... → Narrowly averted

Figure 10.1 Development path of volitional and intentional structures (based on Kuteva 1998: 152)

Kuteva (1998: 152) states that assuming a connection between narrowly avertives and proximatives is compatible with the fact that ‘the same structure can mean either just about to do something (irrespective of whether the context is past or non-past) or else was just about to do something but never did it in past contexts’, and that such an ambiguity would be expected as part of the grammaticalization process, which is characteristic of the “functional overlap” stage (Heine et al 1991), where both historically earlier and later functions of the one form co-exist together (Kuteva 1998: 152).

Indeed, once the development has taken place, and the grammatical form has reached a certain developmental point in a language, the form would still be expected to retain properties of the preceding stage, e.g. once a form has reached the stage of expressing narrowly averted events, for example, it would typically also still retain the ability to express frustrative/counterfactual/intentional/volitional readings it of prior stages Kuteva (1998: 142).

Thus, this development path is compatible with, and helps to explain, the functions expressed by IRREALIS-V-PST/NPST/Ø=PURP marking examined in this section.

10.2.2 -ngiyendhe- ‘want’ constructions

The verb *-ngiyendhe-* ‘want’ has a primary volitional meaning, as demonstrated in examples (10.53) – (10.55).

- 10.53) *nə-ngiyendhe-na=ma* *kənə-lhəka-ja=ma*
REAL.3M-want-NPST=MUT **IRR.3M-go-NPST=MUT**

‘He wants to go’ [author translation; Prompt: ‘He wants to leave’]

(JL, JRB1-044-01, 00:33:31-00:33:36)

10.54) *yarna* *yirruwa* **yirri-ngiyendhe-na=ma** *kirru-mirnda-ngekburna*

1A.this 1A.PRO **REAL.1A-want-NPST=MUT** 2A-many-good

yik-ambilya=ma *yiku-warde-na=mər̄ra=manja* *warika=manja*

IRR.2A-stay.NPST=MUT IRR.2A-work-NPST=MUT=LOC NEUT.work=LOC

‘We need to make sure you are safe at work’ [i.e. we want you to be safe at work]

(ALC Induction Policy: 9)

10.55) ***nə-ngiyendha-ng*** *kən-dhelyu+wəngə-nə=m* *akəna*

REAL.3M-want-PST IRR.3M>NEUT-chew-PST=MUT NEUT.that

amadhangkwa

NEUT.meat

‘He wanted to chew the meat’ [author translation; Prompt: ‘He wanted to eat some meat’]

(JL, JRB1-044-01, 00:33:09-00:33:13)

In past temporal contexts, this can express a desire that was not actualised, with a subsequent clause detailing the prevention of the expected event, as in example (10.56).

10.56) *dh-akən* *dhədharrəngka* ***ying-endha-Ø=m***¹²⁶ *kəngi-yəngbə-nə-m*

3F-that 3F.woman **REAL.3F-want-USP=MUT** IRR.3F-talk-PST=MUT

ayakwa *David=wa* *ekena* *adhənakba-kiya*

NEUT.language David=ALL but first.time [already]

nə-lhəka-rn *angalyu=wa* *nə-lhawrradhə-n* *angaly*

REAL.3M-go-PST NEUT.place=ALL REAL.3M-return-PST NEUT.place

nə-lhəka-rn *angalyu=wa*

REAL.3M-go-PST NEUT.place=ALL

‘The woman wanted to talk to David, but he had already gone to that place’

¹²⁶ The verb *-ngiyendhe-* ‘want’ often takes past temporal reference when marked with the Ø TAM suffix, as in this example. One would expect Ø inflected *ngiyendhe-* to take non-past reference as a general ‘default’, so it is puzzling that it takes past reference here. This needs to be investigated further.

[author translation; Prompt: ‘That lady, she wanted to talk to David, but he had already left’]

(JL, JRB1-075-01, 00:29:46.375-00:30:05.260)

In addition to these standard volitional readings, *-ngiyendhe-* ‘want’ can also express notions of desire and hope (examples (10.57) and (10.58)) as well as expressing the speaker/agent’s attempt to bring about a situation, fuelled by their desire for the situation to occur, as in examples (10.59) and (10.60).

- 10.57) *nāngenā-ngendha-ng=ma* *dhukwa* *nganya* *nabā-rraka*
REAL.1>3M-want-PST=MUT maybe 1.PRO.POSS 3M.son-1.KIN
kān-ambilya=ma *nā-lyang+akbāwngwa*
IRR.3M-stay.NPST=MUT 3M-safe(?)

‘I hoped [=wanted] that my son would stay safe’ [author translation; Prompt: ‘I had hoped my son would have been safe’]

(JL, JRB1-044-01, 00:37:27-00:37:36)

- 10.58) *na* *kānu-mnā-ngiyendha-nga* *nganyanga*
NEG **IRR.1>3M-BENE-want-PST** 1.PRO.POSS
nāwa-rrka *nenā-k-ambilyi-nga* *nu-wārrkawarriya*
3M.older.brother-1.KIN 3M-NSR-stay-CofS 3M-upset

‘I didn’t hope/want that my brother would be sad’ [author translation; Prompt: ‘I did not hope my brother would be sad’]

(JL, JRB1-044-01, 00:38:31-00:38:40)

- 10.59) *ni-ngiyendhe-na* *kān-ambilya=ma* *yelyakwa*
REAL.3M-want-NPST IRR.3M-stay.NPST=MUT here

‘He is trying to stay here [i.e. he wants to stay here]’ [author translation; He’s trying to stay here’]

(JL, JRB1-042-01, 00:24:20-00:24:24)

10.60) *ni-ngiyendhe-na=ma* *kən-angmadha-Ø=ma* *ena*

REAL.3M-want-NPST=MUT **IRR.3M>MASC-steal-USP=MUT** **NEUT.this**

yikarba

MASC.woomera

‘He is trying to steal this woomera [i.e. he wants to steal this woomera]’ [author translation; Prompt: ‘He’s trying to steal this woomera’]

(JL, JRB1-042-01, 00:24:12-00:24:18)

As with the **IRREALIS-V-PST/NPST//Ø=PURP** marking, in addition to the volitional meaning demonstrated in the above examples, *-ngiyendhe-* ‘want’ can also express intentionality, used to make plans that one intends (example (10.61)), or intended (examples (10.62) and (10.63)), to undertake.

10.61) *ngarn-aka ni-ngiyendha-ng=ma* *k-angkarrə-nə=ma*

1(?)**-this** **REAL.1-want-PST=MUT** **IRR.1-run-PST=MUT**

mamuruk=langwiya *angarriba* *yadhikbə=wa*

VEG.road=PERL to.there Emerald.River=ALL

‘I was planning to run along Emerald River’ [author translation; Prompt: ‘I plan to run along the Emerald river’]

(JL, JRB1-044-01, 00:07:01-00:07:08)

10.62) *ngaya* *ngi-yendha-Ø=ma* *k-angkarrə-Ø=m=yedhə*

1.**PRO** **REAL.1-want-USP=MUT** **IRR.1-run-USP=MUT=PURP**

yedhəkən *yedhəkba=lhangwiya*

from.there Emerald.River=PERL

‘I was planning to run along Emerald River’ [author translation; Prompt: ‘I was planning to run along the Emerald River’]

(JL, JRB1-044-01, 00:07:21-00:07:25)

10.63) *na* *kəng-endha-ng* *k-angkarrə-n* *yedhəkən* *akəna*

NEG **IRR.1-want-PST** **IRR.1-run-PST** from.there NEUT.that

angalya *yedikba*

NEUT.place Emerald.River

[Prompt: ‘Don’t leave the food here, the dogs might steal it’]

(JL, JRB1-044-01, 00:24:55-00:25:05)

In addition to these typical apprehensive functions, the EVITATIVE can occur with past inflectional marking in order to express a situation deemed by the speaker as being optimal, but which doesn’t come to pass in the actual world (i.e. out of all the possible worlds, there is a world that the speaker desires, but there is an implication that this world is not the actual world, which is undesirable) (10.65). There is an expectation for a situation to have occurred, but in which in the actual world the situation does not actually take place. The use of an apprehensive marker (that has as one of its core functions the expression of undesirability) in such contexts is therefore not an unexpected occurrence.

10.65) *dh-akənə-mərradha* *king-ekburaka-Ø=**maka*** *cake=a*
3F-that-one.who IRR.3F>NEUT-make-PST=EVIT NEUT.cake=PF

‘She was supposed to make a cake’ [author translation; Prompt: ‘She was supposed to make a cake’]

(JL, JRB1-045-01, 00.37.12-00.37.17)

The EVITATIVE can occur in counterfactual conditional constructions, emphasising the undesirability of the consequent clause, as in example (10.66).

10.66) *ngayuwa* *kəm-lyengke-n=manja* *burrbul* *yarrungkwa*
1.PRO IRR.1>VEG(?)=play-PST=LOC VEG(?)=football yesterday

arakba *k-ingkelyu-dhə-nə=**mak*** *ngayu=dha*
COMPL.ACT IRR.1-wet-INCH-PST=EVIT 1.PRO=TRM

Context: A boy didn’t play football yesterday, because it rained. His friend asks him about it, and the boy explains:

‘If I had played football, I would’ve gotten wet’

(JL, JRB1-086-01, 00:05:51.00-00:05:59.00)

Stokes (1984: 78) suggests that the EVITATIVE is a ‘hypothesis’ marker. However, it is evident that it is not only the EVITATIVE that expresses counterfactuality or hypotheticality, given that this can be without the EVITATIVE clitic. Compare examples (10.67) and (10.68). Thus, I

suggest that the difference between examples (10.67) and (10.68) lies in the degree to which the speaker highlights the undesirability of the consequent clause. This is discussed further in §10.3.2.

- 10.67) *kəng-eburra-nə=m ngəwa amiyerra dh-akəna dhədharrəngka*
 IRR.3F-wait-PST=MUT continue long.time 3M-that 3M.woman
kəng-warda-ngə=ma
 IRR.3F>3F-hit-PST=MUT
 ‘If she waited for a long time, that girl would’ve killed her’ [author translation;
 Prompt: ‘If he waited, that girl would kill him’]
 (JL, JRB1-044-01, 00:29:53-00:30:01)

- 10.68) *kən-eburrarə-nə=manja n-akəna nenəngkwarba*
 IRR.3M-wait-PST=LOC 3M-that 3M.man
*kenu-warda-ng=**maka***
 IRR.3M>3M-hit-PST=EVIT
 ‘If he waited, that man would’ve killed him’ [author translation; Prompt: ‘If he
 waited, that man would kill him’]
 (JL, JRB1-044-01, 00:29:43-00:29:51)

Similar to the PURPOSIVE clitic =*yedha*, the EVITATIVE clitic =*maka* can attach to any part of speech (aside from interjections) (e.g. in addition to verbs (10.69) – (10.72), it can occur on, for example, nominals (10.69), adverbials (10.70), demonstratives (10.71) and (10.72)). It is generally marked only on one element of the clause, however it can be marked multiple times, as in example (10.72).

- 10.69) *nəngi-yukwujiyu=**maka** kəmə-lyangke-nə=ma mamudangku=manja*
 1-small=EVIT IRR.1>VEG-play-PST=MUT VEG.sand=LOC
 ‘If I were a child I would [have] play[ed] in the sand’ (??) [source translation]
 [i.e. Had I been a child/ if I had been a child, I would have played in the sand]
 (Stokes n.d.-b: 118)

10.70) *yangkwurrangwa=maka adhənuɓa=wiya yikənə-lhəke-nə=mərɾa*
to.here=EVIT soon=QUANT IRR.2M.DU-go-PST=MUT
kən-alh-akəna
2A-DU-that
‘You should have come here first’ [source translation]
(Bible Society in Australia 1992: 504)

10.71) *n-akən=maka nenəngkwarba kənə-dhaka-Ø=ma anhəŋga*
3M-that=EVIT 3M.man REAL.3M-cook-PST=MUT NEUT.food
‘He was supposed to cook the food’ [author translation; Prompt: ‘He was
supposed to cook the food’]
(JL, JRB1-045-01, 00.37.29-00.37.34)

10.72) *wurri-yama! warna warn=maka wurruwarda*
COLL-watch.out! COLL.this COLL.this=EVIT COLL.dog
kuw-alybara-Ø=maka anhəŋga ngaku=lhangwa
IRR.COLL-eat-USP=EVIT NEUT.food 12.A.PRO=POSS
‘Watch out! The dog might eat our food’ [author translation; Prompt: ‘Watch out!
This dog might eat our food’]
(JL, JRB1-044-01, 00:23:44-00:23:56)

As demonstrated in examples above, the EVITATIVE can refer to situations located at both past (10.69) – (10.71) and future (10.72) temporal reference points. The EVITATIVE occurs obligatorily with the IRREALIS-V-PST/NPST/POT/Ø inflectional marking.

10.3.1 Future

When attached to verbs marked for non-past temporal reference (IRREALIS-V-NPST/Ø/POT), the EVITATIVE expresses the apprehensive meaning of a potential but undesirable situation, whose occurrence would be best avoided, and which is able to be prevented from occurring.

Lichtenberk (1995), the most prominent general study examining apprehensives (based on a sample of Oceanic languages), distinguishes a number of apprehensive subtypes, namely (i) an apprehensional-epistemic function (in which the apprehensive marked clause is an

independent clause, expressing potentiality and apprehension); (ii) a precautionary function (associated with subordinate clause morphosyntax, in which the main clause provides the precautionary information, while the apprehensive marked clause expresses the undesirable situation that would occur if the precaution is not taken); (iii) a fear complementation function (where the apprehensive marked clause is subordinate to a main clause containing a predicate of fear). In Anindilyakwa, we are concerned primarily with the apprehensional-epistemic function, given that the =*maka* EVITATIVE clitic is not restricted to subordinating functions.

Apprehensional-epistemics are a mixed modal category, combining epistemic, bouletic and teleological modality, being concerned both with the ‘speaker’s degree of certainty about the factual status of a proposition’ as well as their goals or their ‘attitude concerning the desirability of the situation encoded in the clause’ (Lichtenberk 1995: 293), as in example (10.73).

- 10.73) *yama!* *mema* *malharra* *kəmi-ngkə+lharrə-Ø=maka*
 watch.out VEG.this VEG.stone IRR.VEG-fall-USP=EVIT
 ‘Watch out! This stone might fall!’ [author translation]
 (JL, JRB1-044-01, 00:23:24-00:23:31)

While the EVITATIVE occurs in independent clauses, it frequently (but not obligatorily) occurs in complex sentences, being contextually foregrounded by information concerning potential preventative action, often in the form of an imperative (or negative imperative) or some other admonitory speech act, carrying an illocutionary force of warning (e.g. ‘don’t go inside, lest...’, ‘watch out! lest...’, ‘we should be careful, lest...’). For example in (10.74), \neg do *P*, or else *Q*/ \neg do *P*, maybe *Q*.

- 10.74) *nəngkena* *nara a-lyinga-ma* *y-akəna*
 here NEG NEG.NPST-touch-NEG.NPST MASC-that
yingarna *mena* *kan-angi-ya=maka*
 MASC.snake because IRR.MASC-bite-POT=EVIT
 ‘Don’t touch the snake, it might bite you’ [author translation; Prompt: ‘Don’t touch this snake, it might bite you’]
 (JL, JRB1-044-01, 00:24:14-00:24:23)

The causal relationship between the precautionary clause and the EVITATIVE marked clause can be overtly marked, using clause combining particles such as *mena* ‘because’ (example 10.74), or through juxtaposition of the two clauses, where the causal relationship is pragmatically inferred (examples (10.75) and (10.76)).

- 10.75) *nara a-wiyabu-ma arrawa amiyerriya=wa*
 NEG NEG.NPST-enter-NEG.NPST inside NEUT.shelter=ALL
ke-ngkə+lharra-Ø=mak akəna nungkwa=manja
 IRR.NEUT-fall-USP=EVIT NEUT.that 2.PRO=LOC
 ‘Don’t go into the shelter, lest it fall on you’ [author translation; Prompt: ‘Don’t go into this shelter, it might fall on you’]
 (JL, JRB1-044-01, 00:24:27-00:24:34)

- 10.76) *akə-ngekburaka-jungu-na=ma ngarnə-m-awarruwalya*
 IRR.12A-make-REFL-NPST=MUT 12A.M-INALP-shadow
ak-angbilyuwa-dhə-na=maka
 IRR.12A-NEUT.sickness-INCH-NPST=EVIT
 ‘We should be careful of our shadows lest we might get sick’ [source translation]
 (Groote Eylandt Linguistics 1993: 142)

The *=maka* EVITATIVE clitic often occurs following a clause containing a predicate of fear (-*akbadhe-* ‘be.afraid’), as in examples (10.77) and (10.78). However, as we have observed from the distribution of the *=maka* clitic, it does not need to be embedded as a complement of the fear predicate, as sometimes is the case with apprehensive markers cross-linguistically (Angelo & Schulze-Berndt 2016: 259).

Thus, as demonstrated by the examples throughout this section, although the *=maka* EVITATIVE clitic can occur following precautionary and fear clauses, it should not be analysed as a subordinate apprehensive construction, but rather as a main clause marker (similar to what has been remarked upon in other non-Pama-Nyungan languages, e.g. Bininj Kunwok (Evans 2003: 649)).

- 10.77) *ngayu ng-akbadhe-na=ma wurr-akəna wurruwarda*
 1.PRO REAL.1-be.afraid-NPST=MUT COLL-that COLL.dog

*kuw-alyba-rna=***maka** *chocolate.pudding*
 REAL.COLL-eat-NPST=EVIT NEUT.chocolate.pudding
 ‘I’m afraid that my dog might eat the chocolate pudding’ [author translation]
 (JL, JRB1-044-01, 00:44:40-00:44:50)

10.78) *ngayuwa* *ng-əkbadhe-na=***ma** *dh-akəna* *dhəngarrbiya*
 1.PRO REAL.1-be.afraid-NPST=MUT FEM-that FEM.crocodile
*kənganə-mi-ya=***maka** *nganyangwa* *nabə-rraka*
 IRR.FEM>3M-take-POT=EVIT 1.PRO.POSS 3M.son-1.KIN
 ‘I’m afraid that a crocodile might attack my son’ [author translation; Prompt: ‘I
 fear that a crocodile may attack my son’]
 (JL, JRB1-044-01, 00:42:55-00:43:03)

10.3.2 Past

As mentioned above, in simple independent clauses with IRREALIS-V-PST inflectional marking, the EVITATIVE denotes a past deontic situation in which the speaker expected the situation to take place but which did not occur in the actual world (i.e. the event should have happened, but didn’t). Here, the EVITATIVE is not indicating the undesirability of the actual event in question, but rather their expectation that the right course of events would be for that situation to have taken place, and that the non-occurrence of the situation is not expected or desirable. For example, while events such as being hit on the head (example 10.79) may be undesirable, other events (e.g. be married (10.80), fix a recorder (10.81), arrive (10.82)) are not necessarily undesirable as events themselves, but rather here the =*maka* EVITATIVE clitic is indicating that the non-occurrence of the event in-and-of-itself is undesirable (i.e. the result of the event not occurring is undesirable – the event should have happened).

10.79) *n-akəna* *kenu-warda-ng=***maka** *arung=***manja**
 3M-that IRR.3M>1-hit-PST=EVIT NEUT.head=LOC
 ‘He should have hit me on the head [but he didn’t]’ [author translation]
 (JL, JRB1-044-01, 00:21:23-00:21:27)

10.80) *ngayuwa dh-aka yik-ngeyake-nə=***maka**
 1.PRO 3F-this IRR.1A-marry-PST=**EVIT**
 ‘I meant to marry her’ [CW, speaker translation]
 ‘I was supposed to marry her’ [author translation; Prompt: ‘I was supposed to marry her’]
 (JL, JRB1-045-01, 00.35.24-00.35.30)

10.81) *yarrungkwa n-akəna James kənə-ngekburaka-Ø=***maka** *ena*
 yesterday 3M-that James IRR.3M-make-PST=**EVIT** NEUT.this
akiyengba nah, n-ibina yelakwa
 NEUT.recorder nah 3M-that.same here
 ‘James should have fixed this recorder’ [author translation]
 [originally provided in response to prompt: ‘James could have fixed this recorder’,
 however later checked with JL, and for ‘could have’ reading JL preferred REALIS
 form: ‘*yarrungkwa n-akəna James nəngi-yekburaka-Ø ena akiyengba yelakwa*’
 [James fixed the recorder yesterday]]
 (JL, JRB1-042-01, 00:29:01-00:28:14)

10.82) *nəng-engkirre-na kəngi-yedha-ngə=***maka** *adhuwaba*
 REAL.1-hear-PST IRR.3F-arrive-PST=**EVIT** today
 ‘I heard that she might¹²⁷ [have] arrive[d] today’ [source translation]
 [i.e. I heard that she was meant to have arrived today/ I heard that she should have arrived today/??]
 (Stokes n.d.-b: 127)

As with other clitics, in negated clauses the EVITATIVE clitic attaches to the NEGATIVE particle *nara* rather than the verb. The EVITATIVE marked particle generally occurs directly adjacent to the verb, on the left periphery (see examples (10.83) and (10.84)).

¹²⁷ This example was given the translation ‘might have arrived’ by Stokes (1984), however I suggest that a better translation would be ‘was meant to have arrived’ expressing the expectation of arrival rather than the epistemic possibility reading provided by Stokes (1984). There are no other examples in which =*maka* expresses such a reading, and thus a past deontic reading whereby the speaker expresses their expectation that the event was to occur would be in keeping with all other data examined concerning the =*maka* clitic.

10.83) *akwa James nara=maka kən-alyba-rna akəna*
 and James NEG=EVIT IRR.3M>NEUT-eat-PST NEUT.that
amadhangkwa akwalya
 NEUT.meat NEUT.fish
 ‘And James, he should not have eaten the meat’
 (JL, fieldnotes, 27/06/2017)

10.84) *kemba nara, nara=maka yik-ngeyəke-na*
 then NEG NEG=EVIT IRR.1A-marry-PST
 ‘I wasn’t supposed to marry her’ [author translation; Prompt: ‘I wasn’t supposed
 to marry her’]
 (JL, JRB1-045-01, 00.35.38-00.35.43)

As discussed in Chapter 9, because of the modal underspecification of negatives (where all negative past events are obligatorily marked with IRREALIS-V-PST marking, irrespective of modality), negated IRREALIS-V-PST inflected verbs can be ambiguous between expressing a negated event that actually occurred (i.e. entailing that the event took place), and a past deontic modal reading (e.g. ‘should have *P*’) (i.e. entailing that the event did not take place). Example (10.85) demonstrates this ambiguity, which expresses both the readings ‘he didn’t give me that money’ (i.e. the event did not occur) and ‘he shouldn’t have given me that money’ (i.e. the event occurred, but against the wishes of the speaker). While both of these readings can be expressed by this NEG + IRREALIS-V-PST marked verbal structure, the reading expressing the non-occurrence of the event is the primary reading inferred (with the modal reading generally made explicit by context). However, when occurring with the EVITATIVE clitic, the simple negated past reading is not available. Compare examples (10.85) and (10.86). Thus, the EVITATIVE clitic occurs in independent negative past clauses in order to unambiguously express a counterfactual deontic past (‘should have’ [but didn’t]) reading.

10.85) *n-aka nara kenu-kwa-Ø a-rmdak-akəna money*
 3M-this NEG IRR.3M>1-give-PST NEUT-many-that NEUT.money
angwarnda
 NEUT.money
 ‘He didn’t give me that money’

‘He shouldn’t have given me that money’

(JL, JRB1-044-01, 00:18:27-00:18:35)

- 10.86) *n-aka nara=**maka** kenu-kwa-Ø a-rmdak-akəna*
3M-this NEG=EVIT IRR.3M>1-give-PST NEUT-many-that
money angwarnda
NEUT.money NEUT.money

*‘He didn’t give me that money’

‘He shouldn’t have given me that money’

(constructed)

The EVITATIVE clitic can additionally occur in counterfactual conditional clauses, attached to both the antecedent (10.87–10.88) and consequent (10.89–10.90) clauses (expressing both positive (10.87–10.90) and negative (10.91–10.92) polarity).

- 10.87) *kə-lyumadi-nə=**maka** kə-kilharrka-rna angwura*
IRR.2-be.lost-PST=EVIT IRR.2-light.bushfire-PST NEUT.fire
‘If you had got lost, you should have lighted a fire’ [source translation]
[i.e. Had you been lost/ if you had got lost, you would’ve light a fire’]
(Stokes n.d.-b: 118)

- 10.88) *nəngi-yukwujiyu=**maka** kəmə-lyangke-nə=ma mamudangku=manja*
1-small=EVIT IRR.1>VEG-play-PST=MUT VEG.sand=LOC
‘If I were a child I would [have] play[ed] in the sand’ (??) [source translation]
[i.e. Had I been a child/ if I had been a child, I would have played in the sand]
(Stokes n.d.-b: 118)

- 10.89) *nara=**maka** k-angbilyuwa-dhə-na nəng-ena kə-lhəke-na Darwin=uwa*
NEG=EVIT IRR.1-sick-INCH-PST 1-this IRR.1-go-PST Darwin=ALL
‘If I hadn’t been sick I could have gone to Darwin’ [source translation]
[i.e. Had I not been sick/if I hadn’t been sick, I would’ve gone to Darwin]
(Stokes n.d.-b: 119)

10.90) *nara=manja kən-ambilya yakwudnya kən-alyba-rn=maka*
 NEG=LOC IRR.3M-stay.PST here IRR.3M>MASC-eat-PST=EVIT
yinuwambaka
 MASC.giant.clam.shell
 ‘If he didn’t stay there, they would [have] eat[en] clams’ [author translation]
 (JL, JRB1-044-01, 00:31:34-00:31:40)

10.91) *kən-emburra-nə=manjan-akəna ngəwa amiyerra nara wurra-*
 IRR.3M-wait-PST=LOC 3M-that continue still NEG COLL-
nara=mak wurr-akəna kenu-warda-nga
 NEG=EVIT COLL-that IRR.COLL>3M-hit-PST
 ‘If he had waited, they would not have killed him’ [author translation; Prompt: ‘If
 he had waited, they would not have killed him’]
 (JL, JRB1-044-01, 00:28:57-00:29:06)

10.92) *na=manj kənə-lhəka-rna yakwujina nara=maka*
 NEG=LOC IRR.3M-go-PST here NEG=EVIT
yik-angmak-aya-ng=dha
 IRR.1A-chin-be.upright-PST=TRM
 ‘If he hadn’t come, we would not have sat here’ [author translation; Prompt: ‘If he
 had come, they would not have sat there’]
 (JL, JRB1-044-01, 00:32:20-00:32.24)

As discussed in §9.4 and §10.1, counterfactual conditionals are expressed through IRREALIS-V-PST inflectional marking¹²⁸. Thus, as prefaced above in §10.3, the EVITATIVE in these counterfactual conditional constructions does not express counterfactuality or hypotheticality (*contra* Stokes n.d.-b), but rather emphasises the undesirability of the =*maka* marked clause (either the antecedent or consequent clause). Compare, for instance, examples (10.67) and (10.93) (marked without =*maka*) with examples (10.68) and (10.90) (marked with =*maka*). Examples (10.64) and (10.65) both express the counterfactual reading that had there been a situation of waiting, then an event in which someone was killed would have occurred, and

¹²⁸ The LOC case clitic =*manja* often attaches to the antecedent clause, in order to specify this as the antecedent (‘if’-clause), however it is not obligatory (see §8.3 and §10.1).

examples (10.93) and (10.90) both express the counterfactual reading that had a situation of staying not occurred, then a situation in which clams were eaten would have taken place. The difference lies only in that in examples (10.68) and (10.90), the events of killing and eating, respectively, are emphasised as being undesirable by the speaker. If we compare examples (10.68) and (10.91), it can be seen that in example (10.68) the event of killing the man (marked with =*maka*) is deemed as undesirable, while in example (10.91), it is the event of not killing the man (marked with =*maka*) that is undesirable by the speaker.

- 10.93) *nara=ma ny-akəna kən-ambilya yakwujina kuw-alyba-rnə=m*
 NEG=EMPH 3M-that IRR.3M-stay.PST here IRR.3A>MASC-eat-PST=MUT
yinuwambaka
 MASC.giant.clam.shell
 ‘If he hadn’t stayed here, they would have eaten clams’ [author translation:
 Prompt: ‘If he hadn’t stayed there, they would have eaten clams’]
 (JL, JRB1-044-01, 00:31:42-00:31:48)

These functions of the EVITATIVE are also found in Wubuy, whose cognate *-maki* EVITATIVE postpositional suffix can express ‘should have’ in independent clauses, and can be found in both antecedent and consequent counterfactual constructions (Heath 1984: 345); the same as we have observed with the =*maka* EVITATIVE clitic in Anindilyakwa.

10.4 Summary

In expressing modal readings, the inflectional TAM system interacts with modal particles, clitics, predicative cognition adjectives, volitional verbs and conditional structures.

Conditional structures in Anindilyakwa involve two clauses, an antecedent (a dependent clause, that generally takes =*manja* LOCATIVE clitic marking and consequent (a main clause). Both antecedent and consequent clauses in Anindilyakwa involve verbal predicates inflected with IRREALIS-V-PST/NPST/Ø/POT marking. These conditional structures are used to express readings covering both future possibilities and foreclosed possibilities (i.e. involving inaccessible worlds).

Conditionals whose verbal predicates take IRREALIS-V-PST inflectional marking always indicates that the temporal anchoring of the accessibility relation occurs before utterance time,

while conditionals whose verbal predicates take IRREALIS-V-NPST/POT/Ø always indicates that the temporal anchoring of the accessibility relation occurs after utterance time.

To express intentionality and volition, there are two primary ways to do this in Anindilyakwa; the use of the IRREALIS-V-PST/NPST/Ø=PURP construction, whose core meaning involves intentionality, and the use of the verb *-ngiyendhe-* ‘want’, whose core meaning involves volition. However, the IRREALIS-V-PST/NPST/Ø/POT=PURP construction, in particular, is more complex than this, expressing a range of related readings, involving frustrative, proximative, and narrowly averted readings.

The =*yedha* PURPOSIVE clitic occurs most frequently in subordinate clauses, attaching to nominals and verbs, in order to express a purpose or goal, in relation to the main verb. While the PURPOSIVE most frequently occurs in subordinate clauses, it can also attach to main verbal predicates, where IRREALIS-V-NPST=PURP inflected verbs express intent, and IRREALIS-V-PST=PURP inflected verbs express unfulfilled intentions and failed attempts. In all readings involving IRREALIS-V-PST/NPST/Ø=PURP marking in main clauses (i.e. in both past and non-past contexts), intentionality is at the core of these readings. The clustering of semantic readings expressible by this construction (involving future intention and proximative ‘about to’ readings in non-past situations, and frustrative, proximative ‘about to’ and narrowly averted ‘nearly’ readings in past situations) has been observed cross-linguistically (cf. Kuteva 1998), and can be accounted for by a development path from volitionals > intentionals > counterfactuals > narrowly averted.

The verb *-ngiyendhe-* ‘want’ has a primary volitional meaning, but in past contexts can indicate non-actualised desires, and in both past and non-past contexts can express notions of desire and hope, as well as intentionality. This shows the early stages of the development path that examined in relation to the IRREALIS-V-PST/NPST/Ø/POT=PURP construction, whereby volitionals (referring to a concrete item) develop to express intention.

Apprehensive constructions in Anindilyakwa involve the EVITATIVE clitic =*maka*. The primary functions associated with the EVITATIVE clitic =*maka* are apprehensional-epistemic functions (cf. Lichtenberk 1995), associated with describing undesirable situations that have the potential to take place in the future. In addition to these typical apprehensive functions, the EVITATIVE can occur with past inflectional marking in order to express a situation deemed by the speaker as being optimal, but which doesn’t come to pass in the actual world.

Part IV

Conclusion

Chapter 11

Conclusion

In this thesis, I provided a semantic and morpho-syntactic investigation into the TAM system of Anindilyakwa. By describing, in detail, the core grammatical properties of the language, particularly with respect to the verbal complex, I built the infrastructure for an empirically driven and theoretically-informed examination of TAM expression and interaction.

The focus of this thesis concerned the complex verbal morphological structure and combinatorics of Anindilyakwa, and what this means for TAM expression in this language. One of the interesting properties considered in this thesis concerned the contrast between, on the one hand, the inflectional complexity of the verbal structure, particularly with respect to TAM expression, realised through the combination of (at least) two discontinuous morphological slots of the verb structure (i.e. the combination of one of three series of pronominal prefixes (REALIS, IRREALIS, DEONTIC) plus one of four possible TAM suffixes (NON-PAST, PAST, Ø, POTENTIAL)); with, on the other hand, the widespread underspecification of TAM readings displayed by this inflectional system.

In examining the inflectional tense-aspect system, the highly syncretic nature of many of the inflectional T/A markers, and the resulting lack of contrastiveness in many of the form/meaning pairings, were particularly noticeable. This was considered in addition to the lack of semantic specificity of the T/A forms (which was especially apparent with respect to, for example, REALIS/IRREALIS/DEONTIC-V-Ø inflectional marking).

Aspectually, the inflectional system was demonstrated to be underspecified for viewpoint aspect. Temporally, given the commonplace lack of overt inflectional temporal

marking, we observed that it is not uncommon for Anindilyakwa clauses to appear without overt temporal information (i.e. without phonologically overt inflectional tense/aspect marking, or without temporal particles or adverbials). I demonstrated that the temporal framing of such clauses can be inferred via Aktionsart properties, in combination with pragmatic reasoning/discourse structure.

The primary means of modal expression was shown to be exhibited through inflectional verbal marking, with a key distinction being between REALIS-V-NPST/PST/Ø vs. IRREALIS-V-NPST/PST/Ø/POT inflectional marking. We observed that IRREALIS-V-PST/NPST/Ø/POT inflectional marking, in particular, displays a wide range of modal readings, covering future temporal reference, and epistemic/deontic/dynamic modality, and is underspecified for modal force, being compatible with both necessity and possibility readings.

Given the underspecification of inflectional TAM system, various other means of TAM expression were shown to be very salient. I demonstrated that prosodic lengthening, reduplication, and a number of aspectual particles and adjectives are regularly employed to unambiguously express imperfective aspectual readings. In contrast, we observed far less non-inflectional means of expressing perfective perfective readings; an unsurprising fact, given that these readings are more clearly expressed via the inflectional system, inferred through interaction with Aktionsart properties of the verbal complex. A sizable number of clitic markers were also examined, some of which are involved in imperfective aspectual readings in independent clauses, but which can also be used as a means of dependent temporal marking of dependent clauses. Clitic marking was also shown to play an important role in expressing modal readings, interacting with inflectional verbal marking, in order to express – particularly – conditional, volitional and apprehensive readings.

This thesis focussed on the inflectional TAM system, with only a small number of the numerous complex aspectuo-temporal and modal adverbials and particles examined in any detail. This is clearly, however, a fertile and important area for future study; investigating the semantics of these adverbials and particles, and their interaction in discourse. Linked with this is the necessity to collect and examine more conversational and interactional data (considering not only TAM expression, but also related interactional categories, such as the =*ma* ~ =*mærra* engagement clitic).

It is hoped that this project – in providing a systematic examination of TAM expression in an understudied language, along with a dataset of rich and varied TAM data – contributes towards more comprehensive and geographically distributed and diverse cross-linguistic

typological work in the TAM domain in the future; as well as encouraging further detailed investigations into TAM systems of other under-documented languages.

Appendices

Appendix A

Overview of topics concerning phonology and nominals

This Appendix provides a very brief outline of Anindilyakwa phonology and the orthographic conventions I follow in this thesis, as well as brief overviews of nouns, adjectives, free pronominals, demonstratives and interrogatives in Anindilyakwa.¹²⁹

A.1 Phonology and orthography

Phoneme inventory

Anindilyakwa exhibits a rather typical Australian inventory of consonants, displaying close to the maximum Australian consonant inventory, with six places of articulation (for stops and nasals), a lateral in each coronal series, an apico-alveolar tap/trill, and three glides (labio-velar, palatal and retroflex). The consonant inventory also includes three series of complex consonants; two labialised velars (/k_w/ and /ŋ_w/); six homorganic nasal+stop sequences (one for each stop/nasal); and three heterorganic dorsal+labials (/kp/, /ŋm/ and /ŋp/) (van Egmond 2012: 79). The consonant inventory of Anindilyakwa is very similar to neighbouring and

¹²⁹ For further discussion of Anindilyakwa phonology see van Egmond (2012, chapter 2); nouns and adjectives see van Egmond (2012, chapter 3); free pronominals see Leeding (1989, chapter 4); demonstratives see Leeding (1989, chapter 5); and interrogatives see Leeding (1989, chapter 7).

follow-Gunwinyguan language Wubuy. The consonant inventories of both languages differ in some ways from most other Gunwinyguan languages, in that there is no phonemic length contrast of stops, and that there exists a lamino-dental series of stops and nasals (absent in most Gunwinyguan languages) (van Egmond 2012: 31). This consonant inventory is displayed in Table A.1, with the phonemes marked in bold, and the orthographic conventions used throughout this thesis in brackets.

		Place of articulation						
		Bi-	Apico-		Lamino-		Dorso-	
		labial	alveolar	retroflex	dental	palatal	velar	velar rounded
Manner of Articulation	Stop	p (b)	t (d)	ɽ (rd)	ɬ (dh)	c (j)	k (k)	k^w (kw)
	Nasal	m (m)	n (n)	ɳ (n)	ɲ (nh)	ɲ (ny)	ŋ (ng)	ŋ^w (ngw)
	Lateral		l (l)	ɭ (rl)	ɻ (lh)	ʎ (ly)		
	Vibrant		r, r (rr)					
	Glides			ɻ (r)		j (y)		w (w)
	Nasal + stop	mp (mb)	nt (nd)	ɳɽ (rnd)	ɲɬ (ndh)	ɲc (nj)	ŋk (ngk)	ŋk^w (ngkw)
	Complex segments	kp (kb) ŋp (ngb) ŋm (ngm)						

Table A.1 Consonant phoneme inventory (van Egmond 2012: 17)

The vowel inventory of Anindilyakwa has been heatedly disputed over the years, largely due to the quality of the high vowels and central schwa, and their surrounding consonants, which have been analysed in different ways by different scholars. I follow van Egmond's (2012) analysis throughout this thesis, distinguishing four vowel phonemes; /a/, /i/, /ɛ/ and /ə/. This inventory differs from the common Australian vowel inventory of three cardinal vowels, and from the typical Arnhem Land vowel inventory of five cardinal vowels (van Egmond 2012: 79). The vowel phoneme inventory of Anindilyakwa is displayed in Table A.2. For further discussion of Anindilyakwa segmental phonology, the reader is directed to van Egmond (2012, chapter 2).

	Front	Central
High	i (i)	
Mid	ɛ (e)	ə (ə)

Low		a (a)
-----	--	--------------

Table A.2 Vowel phoneme inventory (based on van Egmond 2012: 17)

Orthography conventions

Throughout this thesis I adopt the orthography outlined by van Egmond (2012), which is based on the orthography developed by Judith Stokes and Julie Waddy. The orthographic symbols used are outlined in Tables 3.1 and 3.2 (in brackets next to the corresponding phoneme). In addition to these, two further orthographic symbols are employed to express common vowel allophones: <ee> (for [e]) and <u> (for [u]) (van Egmond 2012: 18).

While the language name <Anindilyakwa> would be written <Enindhilyakwa/Anindhilyakwa> under the orthographic conventions presented above, I use the spelling <Anindilyakwa> for the name of the language throughout this thesis, given that this is the preferred convention by the community, and is the most widely used spelling to refer to both the people and language of Groote Eylandt by people of the community, local organisations, and State and Federal organisations.

Phonotactic constraints

Anindilyakwa phonotactics are fairly atypical for an Australian language, having a strong preference for open syllables, and avoiding codas (van Egmond 2012: 16). This is done by ‘(i) all words ending in [a]; (ii) frequent vowel epenthesis to break up consonant clusters; and (iii) syllabification of the homorganic nasal+stop segments and heterorganic dorsal+labial segments in the onset, rather than ambi-syllabically’ (van Egmond 2012: 80).

Stress

There is a general rule of penultimate stress in Anindilyakwa, but, as with other Arnhem Land Languages (Baker 2008), stress is also quality sensitive. Further research is needed to better understand stress patterns in Anindilyakwa. The reader is directed to van Egmond (2012, chapter 2), for further discussion of this issue.

A.2 Nouns, adjectives and nominal morphology

Nominal subclasses

As is common in Australianist literature (cf. Dixon 1980; Hale 1983: 33; Dench 1995: 53; Evans 2003: 124), I use the term nominals to denote the supercategory consisting of the two open subclasses of nouns and adjectives, along with the smaller closed subclasses of free pronouns, demonstratives, interrogatives and adverbials (aspectuo-temporal, spatial, manner, quantificational, and negation). These subclasses have in common that they take noun class prefixes (with varying flexibility), and that they have the ability to take number suffixes and case clitics (van Egmond 2012: 81).

The structure of the nominal word is presented in Table A.3 (following van Egmond 2012: 82). The only obligatory elements of the nominal word are the noun class/ gender/ pronominal prefix in slot [-6] (aside from loanworks, which do not take an overt noun class marker), and the stem in slot [0]. Other optional elements are provided in parentheses in the table. The subclass a nominal belongs to determines what elements of the template it can take (e.g. body parts and generics can only be incorporated into adjectives and adverbs, but not nouns, demonstratives and pronouns) (van Egmond 2012: 82).

-6	(-5)	(-4)* ¹³⁰	(-3)	(-2)	(-1)*	0*	(+1)	(+2)	(+3)
Pronominal/ gender/ noun class prefix	Trial number	Quantifier	Inner gender	Inalienable/ alienable possession	Body part/ generic nominal	Stem	Number	Adnominal case	Grammatical/ semantic case

Table A.3 Structure of nominals (van Egmond 2012: 82)

Nouns

Nouns include common nouns, human/higher animal referent nouns, kinship terms and proper nouns. All nouns can be used predicatively and can take number suffixes and case clitics.

¹³⁰ Slots marked * may be reduplicated, to express plurality or intensification (van Egmond 2012: 82).

Common nouns all take a noun class prefix, which is frozen to the stem and cannot be omitted or substituted (van Egmond 2012: 91). Kinship terms have flexible prefixes, and also take a set of possessive suffixes that are specific to kin relationships, which follow the root and indicates the possessor of the kin term (van Egmond 2012: 82).

Human/higher animal referent nouns also have flexible prefixes, being able to change the prefix to reflect the gender/class of the human/higher animal referent. For example, the 3M prefix *n-* in *nenəŋkwarba* ‘man’ can be replaced by the 3A prefix *wurr-* to generate *warningkwarba* ‘men’ (van Egmond 2012: 96).

Adjectives

Adjectival nominals demonstrate similar morpho-syntactic properties to nouns, in that they can take the same inflectional and derivational prefixes and number suffixes/case clitics, and can be used predicatively. The main difference between adjectival nominals and nouns is that while noun class prefixes on nouns are frozen to the stem (i.e. they cannot be omitted), pronominal/gender/noun class prefixes on adjectival nominals are flexible, and agree with the noun they modify or the subject (when used predicatively) (van Egmond 2012: 91).

Adjectival nominals cover semantic areas including physical property, personal qualities and emotional/bodily conditions, dimension, number and quantification, colour and speed. Of particular interest of this thesis are adjectival nominals expressing cognitive states (e.g. know, not know), which are discussed in relation to dynamic modality, in §3.2.2.4.

Both noun and adjectival nominal stems can comprise of simple roots, reduplicated roots, and defective roots, that require another nominal to bind to (e.g. adjectives +*bədha* ‘strong’, +*adharrba* ‘short’) (van Egmond 2012: 126). For further information about nouns, adjectival nominals, pronominal/gender/noun class prefixes see van Egmond 2012, chapter 3.

Nominal morphology

As displayed in Table A.3, in addition to the nominal stem and the noun class/gender/pronominal prefix, nominals can take various other elements in both prefixal and suffixal positions, notably number marking (in prefixal positions (trial and quantifier) and suffixal (number suffix)), marking of inner gender and inalienable/alienable possession (prefixes) and case marking. These elements are discussed briefly here.

Prefixal elements

The trial number prefix *-bək-* follows the pronominal/gender/noun class prefix and marks trial number for both human and non-human referents (van Egmond 2012: 107).

The quantifier functions to express plurality of the nominal. The quantifier prefix on nominals is the same form that also occurs with verbs (*-mərnda-* and *-wurra-*).

Inner gender prefixes (feminine *-adh-* and masculine *-en-*) follow the ‘outer’ gender prefixes, and are morphologically similar to them. The inner gender prefixes co-occur with the inalienable (*-m-*) and alienable (*-ng(w)-*) possession prefixes, and with the nominaliser prefix (*-k-*) that is used to derive nominals from verbs (van Egmond 2012, p.82). Inner gender occurs only when the derived nominal refers to a human or animate referent (van Egmond 2012: 108).

The inalienable (*-m-*) and alienable (*-ng(w)-*) possession prefixes convert a root into a derived nominal of a specific target noun class, agreeing with that of an external nominal (van Egmond 2012: 111). Nominals derived with the inalienable possession prefix refer to parts of inanimate objects, plants, animals and components of body parts (Leeding 1996; van Egmond 2012). The alienable possession prefix denotes the sense of being ‘associated with’ or ‘belonging to’, deriving a nominal from a noun (generally a non-body part), adverbial nominal or adjectival nominal (van Egmond 2012: 120). See van Egmond (2012, chapter 3) for more information.

Number suffixation

Number suffixation, indicating dual number, is marked directly after the nominal stem. The dual suffix *-kiya* occurs on nouns and adjectival nominals.

Case marking

Nominal morphology doesn’t play a key role in expressing information about core grammatical functions in Anindilyakwa, with pronominal prefixes used instead as the central way to encode this information. Only indirect object arguments of ditransitive verbs use case marking to express grammatical functions (van Egmond 2012: 280). Rather, case marking is mainly employed at the clause level to express semantic roles. In addition, case marking can play an adnominal function relating one noun phrase to another, and can also attach to fully inflected

verbs in a subordinating (T-complementiser) function. Table A.4 outlines the seven case forms, along with their respective grammatical, semantic and adnominal functions.

The labels for these types of case functions follows Dench & Evans (1988), where grammatical case marks a grammatical function of the nominal; semantic case expresses semantic roles of the nominal, providing information about motion (to or from) and place of an event; adnominal marks the relation between two noun phrases; and T-complementiser case attaches to fully inflected verbs creating subordinate clauses that specify temporal or logical relationships with other clauses (van Egmond 2012: 280). See §3.2.2.4, §8.1, §8.2 and §10.1 for discussion and examination of the t-complementiser role of case clitics.

Suffix	Grammatical	Semantic	Adnominal
= <i>manja</i>	direct object of ‘hit’ verbs; (direct object, indirect object)	LOCATIVE	-
= <i>kba</i>	-	-	DENIZEN
= <i>wa</i>	(indirect object, direct object, oblique)	ALLATIVE	-
= <i>hangwa</i>	DATIVE (indirect object of intransitive verb)	ABLATIVE	POSSESSIVE
= <i>hangwiya</i>	-	PERLATIVE	-
= <i>wiya</i>	-	QUANTIFICATIONAL	-
= <i>ma</i> ~ = <i>m̄arra</i>	INSTRUMENTAL	-	PROPRIETIVE/ PRIVATIVE/ COMITATIVE

Table A.4 Case suffixes and functions (based on van Egmond 2012: 281)

A.3 Free pronominals, demonstratives and interrogatives

Free pronominals

Free pronominals are a closed word class, that fall into three sets, labelled direct, oblique and emphatic. The direct series can have subject and object function, and takes the suffix *-wa*. The oblique series is used to indicate possession, and takes the possessive case clitic =*lhangwa* instead of the *-wa* suffix, and the emphatic series is used to mark a change of referent or emphasise the pronominal, and takes the suffix *-aja* in place of the *-wa* suffix.

Free pronominals (as well as bound pronouns) distinguish four numbers, three persons (with inclusive and exclusive non-singular first person), as well as five inanimate pronominals (MASCULINE, FEMININE, NEUTER, VEGETABLE, COLLECTIVE). The number system is described using the labels ‘minimal’, referring to the logically minimum set (i.e. singular for all persons except 1st person inclusive, where the minimal corresponds to dual) and ‘augmented’, referring to one or more greater than the minimum set (i.e. plural), as well as dual and trial categories (specifications of the augmented category) (van Egmond 2012: 85).

As is frequently observed with languages that take bound pronouns, free pronominals are less frequently encountered in Anindilyakwa discourse. They are not obligatory, and play discourse roles involving emphasis, contrast and referentiality (van Egmond 2012: 87).

Table A.5 displays the direct free pronominal paradigm.

	Minimal	Augmented	Dual	Trial
1	<i>ngayuwa</i>	<i>yirruwa</i>	<i>yinuwa</i> (M) <i>yirranguwa</i> (F)	<i>yirrābākarruwa</i>
2	<i>nāngkuwa</i>	<i>nāngkurruwa</i>	<i>nāngkə(r)nuwa</i> (M) <i>nāngkərranguwa</i> (F)	<i>nāngkərrābākarruwa</i>
12 ¹³¹	<i>yakuwa</i>	<i>ngakurruwa</i>		<i>ngarrābākarruwa</i>
3	<i>enuwa</i> (M) <i>ngalhuwa</i> (F)	<i>abərruwa</i>	<i>abə(r)nuwa</i> (M) <i>abərranguwa</i> (F)	<i>abərrābākarruwa</i>
MASC	<i>(yi)ngalhuwa</i>			
FEM	<i>ngalhuwa</i>			

¹³¹ ‘12’ stands for ‘first person inclusive’ (speaker and addressee), in contrast to ‘1’, which denotes ‘first person exclusive’ (speaker only).

COLL	<i>abərruwa</i>
VEG	<i>(mə)ngalhu-wa</i>
NEUT	<i>(a)ngalhu-wa</i>

Table A.5 Free pronominals (van Egmond 2012: 85)

Demonstratives

The set of demonstratives comprises six roots, which distinguish location with respect to speaker or addressee (distal, medial, proximal), motion (towards a particular point (motion towards)) and visibility (not visible). The sixth demonstrative is an interrogative demonstrative. These are displayed in Table A.6.

English gloss	Demonstrative root	Description
Distal (that.over.there)	<i>-angaba</i>	that over there (distant from speaker)
Medial (that)	<i>-akəna</i>	that there (near addressee)
Proximal (this)	<i>-ena</i>	this here (near speaker)
Motion towards (that.towards)	<i>-bukaya</i>	that approaching speaker and addressee
Not visible (that.not.vis)	<i>-ibina</i>	that not visible
Interrogative demonstrative (that.which)	<i>-angamba</i>	that which? that what?

Table A.6 Demonstratives (based on Leeding 1989: 337)

Demonstratives take the same person/number/gender prefixes and nouns and adjectives, in addition to an extra dual prefix *-alh-* (Leeding 1989: 352-354; van Egmond 2012: 88). They occur with both human and non-human nominals, and agree with the nominal to which they refer.

Demonstratives frequently used in parallel to free pronominals, but can additionally be used in place of free pronominals, for both human and non-human referents. This is particularly the case with the DISTAL and MEDIAL demonstratives (*ena* and *akəna*) (van Egmond 2012: 88).

Interrogatives

Content questions generally involve an interrogative demonstrative. There are three main roots from which interrogative demonstratives are derived: *angamba* ‘where’, *angkabər̄ra* ‘who’ and *amiyambena* ‘what’. These, and other interrogatives derived from these, are listed in Table A.7.

Interrogative	English gloss
<i>angamba</i>	where?
<i>ngambu=wa</i>	where to?
<i>ngamba=lhangwa</i>	where from?
<i>ngambi=yedha</i>	when?
<i>angkabər̄ra</i>	who?
<i>angkabər̄ra=lhangwa</i>	whose?
<i>miyambena</i>	what?
<i>miyambena=baba</i>	for what reason (why)?
<i>miyambena=yedha</i>	for what purpose (why)?
<i>miyambena=ma~=mər̄ra</i>	by what means (how)?

Table A.7 Interrogatives

Appendix B

Overview of other parts of speech relating to TAM expression and discourse cohesion: Adverbials, particles, interjections and clitics

This Appendix provides an overview of those parts of speech relating to TAM expression and discourse cohesion (not examined in detail in the main thesis chapters). Of particular interest to this appendix are adverbials, particles, interjections and clitics. Adverbials are overviewed in B.1., considering in particular aspectuo-temporal adverbials (including measure adverbials, deictic temporal adverbials, frequency adverbials, temporally locating (fixed time-of-day) adverbials, and aspectual/referential adverbials). Manner adverbials, quantificational adverbials, negation adverbials and spatial adverbials are also briefly overviewed. B.2 overviews clause-combining and modifying particles, B.3 considers interjections, B.4 outlines temporal properties expressed by demonstratives, and B.5 briefly overviews clitics.

B.1 Adverbials

Unlike other nominals, adverbials don't take obligatory prefixation, however they can optionally be marked with a prefix to express agreement. Adverbials differ from the semantically related classes of particles and interjections in that adverbials can take case and spatio-modal clitics, while particles and interjections are non-inflecting, and generally non-predicational¹³².

While adverbials don't take inflectional prefixes or show agreement, they can take derivational prefixes (e.g. they can occur with the inalienable or alienable possession derivational prefixes, which convert a root into a derived nominal). This can be seen, for example, with the case of *amiyerra* 'long time' in (B.1).

B.1)	<i>biya</i>	<i>nu-kuwabija-nga</i>	<i>m-ibina=langwa</i>	<i>makangkidikarra</i>
	and.then	REAL.3M-jump-PST	VEG-this-POSS	VEG.carriage
	<i>akwa</i>	<i>n-angkarra-Ø</i>	<i>nen-engkarrnga-Ø</i>	<i>nungw-enikba=manja</i>
	and	REAL.3M-run-USP	REAL.3M>3M-hug-USP	3M.father-1.KIN=LOC
	<i>akwa</i>	<i>nu-ngwadhi-na</i>	<i>n-enang-amiyerra</i>	
	and	REAL.3M-cry-PST	3M-M.ALP-long.time	
	'He jumped down from his carriage and ran and hugged his father and cried'			
	[source translation]			
	(Bible Society in Australia 1992: 391)			

Adverbials exist as simple roots (e.g. *adhənuba* 'soon, near time', *adhuwaba* 'today'), or can be derived from roots of other word classes. For example, an adverbial can be derived from an interjection such as *warenja* 'quick!', forming *waranja=ba=wiya* 'quickly, hastily' (Waddy n.d.). Adverbs may also be derived from other adverbs, such as *adhənuba=wiya* 'beforehand, first' or *adh-adhənuba* (REDUP) 'often' from *adhənuba* 'soon, near time'.

Anindilyakwa adverbials can be sub-categorised into the following:

- i) aspectuo-temporal adverbials (e.g. *arngkədharrba* 'short time, soon', *yarrungkwa* 'yesterday');

¹³² While there are some clear morphological and syntactic distinctions between these different classes, there are some 'grey areas' for which semantic factors are also taken into account in the classification of the word class of certain lexical items (e.g. there are some words I classify adverbials that never take case marking clitics, but which appear semantically (as well as morpho-syntactically) very similar to a particular group of particles, and thus I class them together in the same adverbial class.

- ii) manner (degree/intensity) adverbials (e.g. *abalkaya=wiya* ‘lightly’, *adirrariyaba* ‘suddenly’);
- iii) quantificational adverbials (e.g. *yimbukwa* ‘only’);
- iv) negation adverbials (e.g. *nara* ‘negative’, *yandha* ‘nothing, nothing special’);
- v) spatial adverbials (e.g. *arrawa* ‘inside’, *erribaja* ‘away’, *wilyarra* ‘in the middle’).

Adverbials relating to aspectuo-temporal expression are discussed in Chapter 4 (in relation to Aktionsart), and in Chapter 7. For further discussion of other adverbials, the reader is referred to Leeding (1989, chapter 7).

B.1.1 Aspectuo-temporal adverbials

While not all languages express temporal relations through inflectional tense marking, all languages contain lexical means of constraining temporal reference via temporal adverbials. Temporal adverbials are often treated separately within a general classification of adverbials, considered a special category (sometimes alongside spatial adverbials) (Borillo et al 2004: 310). Borillo et al (2004: 311) suggest that the only common property shared by temporal adverbials is a semantic one, whereby they provide explicit information for the temporal anchoring of eventualities (i.e. they introduce a new temporal referent or create a relation with a pre-existing temporal referent).

The term ‘temporal adverbial’ has a fairly loose and underdetermined status (Borillo et al 2004: 311), given that i) temporal adverbials may display different morphosyntactic properties – i.e. they may comprise any constituent referring to its temporal setting which does not belong to the argumental structure of the clause, be this peripheral to the clause or intergrated to some extent into the structure of the clause (Borillo et al 2004: 310), and ii) given that their temporal semantic properties can extend into other related domains; for example English adverbials such as ‘immediately’ can be understood as both a manner adverbial, as well as a temporal connective (Borillo et al 2004: 311).

Within the category of temporal adverbials, it is useful to further distinguish sub-types on the basis of syntactic and semantic properties. I make use of the following subtypes of temporal adverbials in Anindilyakwa:

- Measure adverbials (e.g. for two days), which express temporal size or duration;

- Deictic temporal adverbials (e.g. before, then), which establish a relation between the clause they're a part of and the preceding clause, expressing temporal relations including anteriority, simultaneity and posteriority;
- Referential anaphoric adverbials (e.g. the preceding/following day/month/etc.), which 'introduce a temporal referent that is anchored to a reference point that is already identified, but that is necessarily different from the moment of speech' (Borillo et al 2004: 313)'
- Frequency adverbials (e.g. usually, always);
- Temporally locating adverbials (e.g. when clauses, dates), which locate a situation at a particular temporal point.

Anindilyakwa temporal adverbials (along with adverbials formed with clitics), grouped according to these subtypes, are listed in Table B.1.

Temporal adverbial subtype	Adverbial	Adverbial + clitic
Measure adverbial	<i>adhuwaya</i> 'for a short time'	<i>adhuwayə=wiya</i> 'for a short time'
		<i>adhuwaya=langwiya</i> 'for a short time'
	<i>amiyerra</i> 'for long time'	<i>amiyerra=ba</i> 'always'
Deictic temporal adverbials	<i>adhənuba</i> 'soon, recently, in a short time (before/after)'	<i>adhənuba=wiya</i> 'first, at first, to start with, beforehand, already'
		<i>adhənuba=lhangwiya</i> 'soon, recently, in a short time (before/after), for a short time'
	<i>ar[ə]ngkədharrba</i> 'soon, recently, in a short time (before/after), for a short time'	<i>ar[ə]ngkədharrba=lhangwiya</i> 'soon, recently, in a short time (before/after), for a short time'
	<i>adhəna[k]ba</i> 'already'	<i>adhəna[k]ba=wiya</i>

		‘already’
		<i>adhəna[k]ba=lhangwiya</i> ??
	<i>adhuwaba</i> ‘today’	<i>adhuwaba=wiya</i> ‘for the day’
		<i>adhuwaba=lhangwa</i> ‘from now on’
		<i>adhuwaba=manja=ba</i> ‘today, for the first time’
	<i>arnungkwaya</i> ‘tomorrow’	
	<i>ambaka</i> ‘later’ ‘later’	<i>ambaka=mərra</i> ‘much later’
		<i>ambaka=lhangwa</i> ‘slowly, gently, carefully, softly’
	-	<i>arija=lhangwa</i> ‘last, later, afterwards’
	<i>yarrungkwa</i> ‘yesterday’	
	<i>lhukwuniyawa</i> ‘before, before leaving’	
	<i>arakba</i> ‘compl.act’ [aspectual adverbial]	<i>arakba=wiya</i> ‘long ago’
Frequency adverbials	<i>arngkawura</i> ‘forever, all the time’	<i>arngkawura=mərra</i> ‘only once, once and for all’
		<i>arngkawura=wiya</i> ‘straight away, immediately’
	<i>arngkuwilyaba</i> ‘once, one day, forever, always’	
	<i>angkwabəbərna</i> ‘every day’	
	<i>akwala</i> ‘some’	<i>akwali=yedha</i> ‘sometimes’
Temporally locating adverbials (fixed time-of-day adverbials)	-	<i>buwa+wiya</i> ‘morning, at first light’
	-	<i>wurdarriya+wiya</i> ‘morning’
	<i>menəngəlhədha</i> ‘daytime’	
	<i>memerrkuwilyarra</i> ‘middle of the day’	

	<i>lharruwura</i> ‘afternoon’	
	<i>alyarrngwalyilya</i> ‘night, night time’	
	<i>marnngkirngkuwilyarra</i> ‘midnight’	

Table B.1 Anindilyakwa temporal adverbials

Like all adverbials in Anindilyakwa, temporal adverbials do not take prefixation (thus they do not show agreement). They can, however, take derivational prefixes (examples B.2 – B.3) and case/temporal/modal clitics (example B.3). In particular, the alienable possession derivational prefix (which is always preceded by a gender morpheme) is not infrequently found with adverbials, deriving a nominal from the adverbial, agreeing in nominal class/gender with a free nominal (examples B.2 and B.3). The DIMINUTIVE prefix *-wank-* ~ *-wa(rr)ngk-* is also found regularly with adverbials, where it decreases the size or scale of the property in question, as in (B.4). The case/temporal/modal clitics that occur with different temporal adverbials are listed in Table B.1.

- B.2) *ngarri-yekirrerra* *ak-ambilya=ma* *ngarnəng-angkawura*
12A-happy IRR.12A-stay.NPST=MUT 12A-M.ALP-all.the.time
‘We will be happy all the time’ [source translation]
(Stokes 1982: 84)

- B.3) *enungw-adhənuba=wiya* *alhawudhawərra*
NEUT.M.ALP-soon=TEMP NEUT.story
‘The first story’ [source translation]
(Stokes 1982: 84)

- B.4) *ngayuwa* *nungu-lhukwe-nə=ma* *alhəkwanja*
1.PRO REAL.1-dance-PST=MUT NEUT.dance
a-warnk-amiyerra
NEUT-DIM-long.time
‘He used to dance for a long time’ [author translation; Prompt: ‘He used to

dance for a long time every night')
(JL, JRB1-082-01, 00:17:59-00:18:10)

B.1.1.1 Measure adverbials

adhuwaya 'little while' and *amiyerra* 'long time'

The two measure adverbials *adhuwaya* 'little while' and *amiyerra* 'long time' express the duration of the time of a situation (*adhuwaya* 'short duration of time'; *amiyerra* 'long duration of time'). These two adverbials are compatible only with durative verb types (similar to 'for' adverbials in English). With verbs expressing non-durative, atomic temporal properties, these adverbials coerce an iterative reading.

This is in contrast to other temporal adverbials in Anindilyakwa associated with particularly a short period of duration, which in addition to durative meaning can also express temporal deictic readings.

B.1.1.2 Deictic temporal adverbials

'Short time' deictic adverbials

There are three temporal adverbials in Anindilyakwa (*adhuwaya*, *adhənuḃa*, *arngkədharrba*) which express temporal properties associated with a short amount of time. While previous research (cf. Leeding 1989; Stokes 1982, 1984) has suggested that these adverbials collectively express a range of temporal qualities including notions such as 'soon', 'recently', 'short time', 'nearly', etc., I suggest that each of these three adverbials clearly express distinct temporal properties, which interact in different ways temporal and aspectual properties of the predicate. *adhuwaya* 'for short time' express only durative properties, *adhənuḃa* expresses only deictic (relational) properties, and *arngkədharrba* 'short time' has the ability to both of these properties, constrained by event structure aspectual properties. These differences are reflected in the examples provided in Table B.2.

<i>adhuwaya</i>	<i>amba nungkwurr-ajə=ka karnumamalya kərr-ambilya-ma karna</i> <i>adhuwaya enena=manja angalya ebina wubərɾa awija</i> ‘And you will live here in the world for a short time , like the mist’
<i>adhənuba</i>	<i>James n-ak adhənub kəni-yedhi-ya-ma</i> ‘James will be here soon ’
<i>arngkədharrba</i>	<i>nenə-lhərrakə-ma-nga nu-kuw-ajeya arngkədharrba yakwujina</i> ‘He took them and stood there for a while ’
	<i>amba arngkədharrba n-aka kəni-jadi-ya-ma</i> ‘But soon he'll come back here’

Table B.2 ‘Short time’ temporal adverbials

Other deictic temporal adverbials: now, later, before

Other deictic temporal adverbials are listed below, in Table B.3.

Present temporal reference	
<i>adhuwaba</i>	today
<i>adhuwaba=wiya</i>	for the day
<i>adhuwaba=lhangwa</i>	from now on
<i>adhuwaba=manja=ba</i>	today, for the first time
Past temporal reference	
<i>yarrungkwa</i>	yesterday
<i>lhukwuniyawa</i>	before, before leaving
<i>arakba=wiya</i>	long ago
Future temporal reference	
<i>arnungkwaya</i>	tomorrow
<i>ambaka</i>	later
<i>ambaka=mərɾa</i>	much later
<i>ambaka=lhangwa</i>	slowly, carefully
<i>arija=lhangwa</i>	last, afterwards

Table B.3 Other deictic temporal adverbials

B.1.1.2 Frequency adverbials

Frequency adverbials are listed in Table B.4¹³³. It can be observed that a salient feature of these adverbials is the involvement of the productive *arngk* ‘time’ morph in these adverbials (see, for example, B.5).

Adverbial	Adverbial + clitic
<i>arngkawura</i> ‘forever, all the time’ [<i>arngk</i> ‘time’ + <i>awura</i> ‘alone’]	<i>arngkawura=mər̄ra</i> ‘only once, once and for all’
	<i>arngkawura=wiya</i> ‘straight away, immediately’
<i>arngkuwilyaba</i> ‘once, one day, forever, always’ [<i>arngk</i> ‘time’ + <i>-uwilyaba</i> ‘one’]	
<i>angkwabəbər̄na</i> ‘every day’ [<i>angk</i> ‘time’ + <i>abəbər̄na</i> ‘many’]	
<i>akwala</i> ‘some’	<i>akwali=yedha</i> ‘sometimes’

Table B.4 Frequency adverbials

- B.5) *kenə-beyinda-ngi=yedha* *akena arngk-əmemberrkwa=mər̄ra*
 IRR.3M>1-pay-PST=PURP but **time-ten=EMPH**
nu-warrukwa-Ø=ma *akəna=da*
 REAL.3M>NEUT-confuse-PST=MUT NEUT.this=TRM
 ‘He should have paid me but he has changed my pay **ten times**’
 (Bible Society in Australia 1992: 249)

B.1.1.2 Temporally locating (i.e. fixed time-of-day temporal) adverbials

Anindilyakwa has a rich stock of temporally locating expressions distinguishing between different time intervals of the day and night, associated with the sun’s movement (e.g. *buwawiya* ‘morning, at first light’; *wurdarriyawiya* ‘morning’; *larruwura* ‘afternoon’) and the

¹³³ Grey text indicates a non-frequency adverbial, but are listed alongside in the table due to similarity in form.

changes between darkness and light (for instance, the word for ‘daytime’ is based on the word *alida* ‘paint, painting, colour’). Principle diurnal and nocturnal units of time that are distinguished are listed in Table B.5.

For further discussion of temporally locating adverbials in Anindilyakwa, see Bednall (forthcoming-b).

Anindilyakwa time-of-day word	English translation
<i>buwawiya</i>	morning, at first light
<i>wurdarriyawiya</i>	morning
<i>menəŋəlhədha</i>	daytime (i.e. when it’s light; derived from <i>alhədha</i> ‘paint, painting, colour’)
<i>memerrkuwilyarra</i> (lit. <i>-merrk-</i> ‘sun’ + <i>wilyarra</i> ‘middle’)	middle of the day
<i>lharruwura</i>	afternoon
<i>menəŋalyarrngwalyilya,</i> <i>alyarrngwalyilya</i>	night, night time
<i>marngkirngkuwilyarra</i> (lit. <i>-arngk-</i> ‘time’ (reduplicated) + <i>wilyarra</i> ‘middle’)	midnight

Table B.5 Anindilyakwa fixed time-of-day (temporally locating) adverbials

B.1.1.2 Aspectual/referential anaphoric adverbials

arakba ‘COMPLETIVE ACTION’

arakba COMPL.ACT is a complex aspectuo-temporal marker. It can be used to emphasise the completion of an event, as well as often occurring with resultative readings (that are often translated as perfect readings in English translations).

B.6)	<i>abərr-aja</i>	<i>Nawa-mərriya</i>	<i>arrawa</i>	<i>arakba</i>
	3A.PRO-CofR	Noah-the.rest	NEUT.inside	COMPL.ACT

m-akəna=manja *mijiyanga*
 VEG-that=VEG VEG.boat
 ‘But Noah and the others were already inside’
 (Bible Society in Australia 1992: 44)

B.7) *mena* *akəna* *ajiringka* *ne-bekə-nə=ma*
 because NEUT.this NEUT.earth REAL.NEUT.drink-PST=MUT
arakba *m-akəna* *merra*
 COMPL.ACT VEG-that VEG.ropes
 ‘Because the earth has drunk that blood’
 (Bible Society in Australia 1992: 26)

In addition to these aspectual readings, *arakba* can also act as a deictic temporal marker, referring to a time including the utterance time (i.e. ‘now’), compatible with present (B.6), past (B.7) and future (B.8) temporal reference.

B.6) *akwa ngarningka* *n-en-ingma* **arakba** *n-akəna*
 and again 3M-M-know COMPL.ACT 3M-that
ebina *eningaba* *akwa* *awurrariya*
 NEUT.that.same NEUT.good and NEUT.bad
 ‘He knows what is good and what is bad’
 (Bible Society in Australia 1992: 21)

B.7) *en-eja* *Nawa* **arakba** *kembirra* *n-en-ingma*
 3M.PRO-CofR 3M.Noah COMPL.ACT then 3M-M-know
n-akəna=dha *akəna* **arakba** *akungwa* *nare=ka*
 3M-that=TRM 3M-that COMPL.ACT NEUT.water NEG=EMPH
ebina=dha
 NEUT.that.same=TRM
 ‘So Noah knew that there was no more water now’
 (Bible Society in Australia 1992: 48)

B.8) *akwa* *yiking-en-ingmi-dhə-na=ma* *ebina* *eningaba*
 and IRR.2.F.DU-M-know-INCH-NPST=MUT NEUT.that.same NEUT.good

akwa awurrariya arakba=dha
 and NEUT.bad COMPL.ACT=TRM
 ‘And you will know what is good and what is bad’
 (Bible Society in Australia 1992: 16)

arakba also appears to have contrastive properties, indicating temporal progression in the discourse, as in (B.9). Similar temporal properties of temporal connectives and particles have been noted in other Australian languages (cf. Ritz et al 2012; Ritz & Schulze-Berndt 2015).

It will be left to future research to examine the aspectuo-temporal adverbial *arakba* in more detail.

B.9) *en-eja n-akəna N-enəng-ikarrawara ni-yengbi-nə=ma*
 3M.PRO-CofR 3M-that 3M-M.ALP-above REAL.3M-talk-PST=MUT
arakba ayakwa
 COMPL.ACT NEUT.language
 ‘Then God spoke’
 (Bible Society in Australia 1992: 3)

lhaka ‘[are you/is it] ready?, all right?, just [let me], [have you] finished?’

This adverbial acts as an interrogative, questioning whether or not the addressee has completed a prior activity in order to be ready for the next one (Leeding 1989: 472-473) (e.g. ‘are you ready to go?’, ‘is it ready?’, ‘have you finished it?’).

B.10) *lhaka nəngkə-lhəka-ja=ma arakba?*
 ready REAL.2-go-NPST=MUT COMPL.ACT
 ‘Are you ready to go?’
 (Leeding 1989: 473)

B.11) *lhaka nganyangwa akəna?*
 ready 1.PRO.POSS NEUT.that
 ‘Is it really mine?’
 (Leeding 1989: 473)

B.1.2 Manner (degree/intensity) adverbials

There are a number of adverbials that modify the predicate, with respect to intensity or speed with which the situation occurs. These are listed in Table B.6. See Leeding (1989, chapter 7) for further discussion.

Adverbial	English gloss
<i>adhirrariyaba</i>	suddenly
<i>arngkawura=wiya</i>	straight away, immediately
<i>angwurra</i>	intensifier, very, strongly, fast
<i>abalkaya=wiya</i>	lightly
<i>wəranja</i>	quickly, soon
<i>wəranjəbə=wiya</i>	quickly
<i>ambaka=lhangwa</i>	slowly, carefully

Table B.6 Manner (degree/intensity) adverbials

B.1.3 Quantificational adverbials

Quantificational properties can be expressed using one of four quantificational adverbials, listed in Table B.7. See Leeding (1989, chapter 7) for further discussion.

Adverbial	English gloss
<i>yimbukwa</i>	‘only’
<i>wulkwa</i>	‘only, except’
<i>arngkawura=mərra</i>	‘only once, once and for all’
<i>waka</i>	‘either-or, some other, different, not that’

Table B.7 Quantificational adverbials

B.1.4 Negation adverbials

There are four negative adverbials in Anindilyakwa. By far the most frequently occurring is the general *nara* NEGATION adverbial. The other three negative adverbials have a more restricted distribution (see Table B.8). Negation is discussed in §3.2.3, §3.3.3 and §9.6.

Adverbial	English gloss
<i>nara</i>	negation
<i>yandha</i>	nothing, nothing special, nothing in particular, only, just, so-so
<i>ngalya, ngarra</i>	emphatic negation, definitely not

Table B.8 Negation adverbials

B.1.5 Spatial adverbials

Anindilyakwa has a rich stock of spatial lexicon, including demonstratives and spatial adverbials. Demonstratives in Anindilyakwa are briefly discussed in A.3, and some of the most salient spatial adverbials are listed in Table B.9, below. For a comprehensive discussion of the spatial lexicon of Anindilyakwa, see Leeding (1989, Chapter 7).

Adverbial	English gloss
<i>karrawara</i>	high, up high, on top
<i>arrakba</i>	outside
<i>arrawa</i>	low, under, beneath, inside
<i>akudhangwa</i>	near, nearby, close
<i>awurrikwalya</i>	distant, remote, long way away
<i>wilyarra</i>	in the middle

Table B.9 Spatial adverbials

B.2 Particles

Particles are non-inflecting, and generally non-predicational, which distinguishes them from other word classes. Like interjections, they do not take derivational or inflectional affixes, and are morphologically invariable, however particles and interjections differ in that particles are syntactically integrated, occurring as part of a full clause, while interjections are not (Mushin 2012: 234).

Particles exhibit a range of grammatical functions, of which I categorise broadly into two sub-categories; clause-combining particles (i.e. discourse connectives) and modifying particles. Clause-combining particles are outlined in B.2.1 and modifying particles in B.2.2.

B.2.1 Clause-combining particles (discourse connectives)

Clause combining particles have a specialised function involving the co-ordination and subordination of words, phrases, or clauses. 11 clause combining particles have been identified in Anindilyakwa, listed in Tables B.10–B.11 (conjunction discourse connectives in B.10, and causal discourse connectives in B.11). Clause combining particles generally occur in sentence or clause-initial position (Leeding 1989: 479). Additionally, the negative adverbial *nara* is used frequently with clause combining properties in negative polarity contexts. These are listed in Table B.12.

Conjunctions (but/and/like)

Particle	Gloss	Function
<i>akwa</i>	and	joins two independent clauses in a simple co-ordinated relationship
<i>iya</i>	and	joins two nominals
<i>amba</i>	but	expresses a contrast between two clauses
<i>wubarra</i>	like	indicates similarity between two items
<i>biya</i>	and.then	joins two independent clauses, and indicates a time sequence
<i>kemba, kembirra</i>	then	joins two independent clauses, with the second clause occurring as the result of the first

<i>akena</i>	however	joins two independent clauses in a relationship of opposition, but weaker than <i>amba</i>
<i>yandhə+lhangwa</i>	until	joins a subordinate clause to main independent clause

Table B.10 Clause combining particles: conjunctions

Cause

Particle	Gloss	Function
<i>kajungwa</i>	so.that	joins a subordinate purpose clause to main independent clause
<i>mena, mena=baba</i>	because	joins an independent and a dependent clause, indicating causation
<i>aminakəna=lhangwa</i>	because.of	joins an independent and a dependent clause, indicating reason for causation ‘because of, on account of’

Table B.11 Clause combining particles: causal particles

Clause combining properties of negation particles

Negation particle	English gloss
<i>nara=baba</i>	because <i>P</i> , not <i>Q</i>
<i>nara=maka</i>	might not <i>P</i>
<i>nara=manja</i>	if not <i>P</i> , unless <i>Q</i>
<i>nara=mərri=lhangwiya</i>	along where there is no <i>P</i>
<i>nara=mərri=mərri</i>	which not <i>P</i>
<i>nara=mərri=wa</i>	to where there is no <i>P</i>
<i>nara=yedha</i>	so that <i>P</i> , not <i>Q</i>
<i>nara=lhangwiya</i>	before <i>P</i>
<i>nara=wiya</i>	before <i>P</i>
<i>yandhə=lhangwa</i>	until <i>P</i> /unless <i>P</i>

Table B.12 Clause combining properties of negation particles

B.2.2 Modifying particles

Modifying particles are those particles that have modal adverbial-like clausal modification properties. These are listed in Tables B.13 (modal modifying particles) and B.14 (aspectual modifying particles). Aspectual modifying particles are examined in detail in Chapter 7 (§7.3).

Modal

Particle	English gloss
<i>dhukwa</i>	maybe
<i>yindhiyi (yindhukureya, yindukwaja, yindhikaja)</i>	try
<i>karukwa</i>	if only, oh no!, wish
<i>kureya</i>	surely not, try
<i>awurmurra</i>	pretending, make believe, for example
<i>amandhangwa</i>	true, truly

Table B.13 Modal modifying particles

Aspectual

Particle	English gloss
<i>ngawa</i>	continue
<i>ngarningka</i>	again, also

Table B.14 Aspectual modifying particles

B.3 Interjections

Like particles, interjections are a non-inflecting word class, however while particles can be syntactically connected with other parts of speech in a clause, interjections are not, constituting

an utterance in themselves. Prototypical interjections are monomorphemic, make up an independent utterance and are not used to represent a non-speech sound (Evans 2003: 132). Leeding (1989: 513) categorises Anindilyakwa interjections into i) response interjections, ii) attention-seeking interjections and iii) warning interjections. These are listed in Table B.15.

Particle	English gloss
<i>kardi</i>	look out, maybe, true
<i>kwuja</i>	look, by the way, come and see
<i>mama</i>	never mind, don't worry
<i>marrakba</i>	pleading, empathy
<i>ngenyerriya</i>	empathy (joy and sorrow), oh dear, poor thing
<i>wa</i>	exclamation of surprise
<i>wayi</i>	getting attention
<i>yakayi</i>	help, ouch
<i>yinja</i>	hey, wake up
<i>jey, jew</i>	go!
<i>kaba</i>	quiet
<i>kadha</i>	don't ask me, goodness knows, right?
<i>jerriya</i>	tag question, really? [expressing surprise, not expecting an answer], is that so?
<i>kayi</i>	what did you say?
<i>kajukwaba</i>	so too

Table B.15 Interjections

B.4 Temporal properties expressed by demonstratives

Demonstratives, being deictic parts of speech used to refer to some object, or abstract reference point are dependent upon context in order to derive their meaning. They are often used to refer to spatial deixis of concrete objects (generally in relation to either the speaker or the addressee), but can also be used to express referential deixis in discourse, where the reading is dependent upon reference of a non-physical location, such as some abstract reference point or marker in

the discourse (i.e. as a way of tracking some object or discourse segment). There are six different demonstrative roots in Anindilyakwa, three that distinguish location with respect to the speaker or addressee (distal, medial, proximal), one that distinguishes motion towards a reference point, one distinguishing non-visibility, and the sixth, an interrogative demonstrative¹³⁴.

In addition to these uses, demonstratives in Anindilyakwa can take different clitic markers, and be used to indicate temporal reference. Here, temporal distance is inferred through spatial distance expressed by the demonstratives. The medial demonstratives (*akəna* ‘that’; *ebina* ‘that same’) are generally used to indicate temporal reference points further away from the utterance time (and thus from ego), while the proximal demonstrative (*ena/ enena* ‘this’) is used to indicate temporal reference points closer to (or at) the utterance time. These demonstratives and their temporal readings are listed in Table B.16.

	<i>akəna</i> ‘that’	<i>ebəna</i> ‘that same’	<i>enena</i> ‘this’
= <i>wiya</i>	<i>akəna=wiya</i> ‘while, previously mentioned time, during that past time’	<i>ebəna=wiya</i> ‘before, a while ago, other day, that time in the past’ e.g. <i>ebəna=wiya Saturday</i> ‘Last Saturday’	<i>enena=wiya</i> ‘now, straight away, immediately, during the present time’
= <i>hangwa</i>	<i>akəna=hangwa</i> ‘as a consequence of’	-	<i>enena=hangwa</i> ‘from now on’
= <i>hangwiya</i>	<i>akəna=hangwiya</i> ‘same time’ (?)	<i>ebəna=hangwiya</i> ‘according to’	-
= <i>yedha</i>	<i>akəni=yedha</i> ‘at that time’	<i>ebəni=yedha</i> ‘before, other day’	-
= <i>mərra=dha</i>	<i>akəna=mərra=dha</i> ‘from then on, after that’	<i>ebəna=mərra=dha</i> ??	-
= <i>manja</i>	-	-	<i>enena=manja</i>

¹³⁴ See Leeding (1989, chapter 5) for further discussion of Anindilyakwa demonstratives.

			‘this coming time’ e.g. <i>ena=manja</i> <i>Saturday</i> ‘This coming Saturday’
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Table B.16 Demonstrative-based adverbials with clitic marking

engka ‘another’ and *emənəngka* ‘different’ adjective-based referential anaphoric adverbials

The adjectives *engka* ‘another’ and *eminəngka* ‘different’ are also used in a similar way to demonstratives, described above, as a means of temporal deictic reference. These properties are listed in Table B.17.

	<i>engka</i> ‘other/another’	<i>emənəngka</i> ‘different’
=<i>manja</i>	<i>engka=manja</i> ‘the following/next time’ e.g. <i>mengka=manja mamawura</i> ‘the following/next day’	<i>emənəngka=manja</i> ‘one time after next’ e.g. <i>memənəngka=manja mamawura</i> ‘the day after next’
=<i>wiya</i>	<i>engka=wiya</i> ‘the other time’ (i.e. the time before/the last time or the next time/the time after – can refer to the time after or before the UT) e.g. <i>mengka=wiya mamawura</i> ‘the day before’	
=<i>yedha</i>	<i>engka=yedha</i> ‘the other time’ (i.e. the time before/the last time or the next time/the time after – can refer to the time after or before the UT) e.g. <i>mengki=yedha mamawura</i> ‘the day before’	

Table B.17 *engka/emənəngka* adjective-based adverbials with clitic marking

B.5 Clitics

Clitics (prosodically dependent on a preceding word and never occurring utterance-initially) can contribute to clausal meaning, or perform discourse functions. I subcategorise clitics in Anindilyakwa into four broad categories i) (spatial) case clitics; ii) spatio-temporal clitics; iii) modal clitics; and iv) discourse-structural clitics. Clitic markers, broken down into these four categories, are listed in Table B.18 (a reproduction of Table 8.1 in Chapter 8).

Clitic marking is discussed throughout this thesis, particularly in Chapters 8 and 10 in relation to relational temporal marking and modal marking.

Category	Clitic	Gloss	Semantic function
Case marking clitics	= <i>lhangwa</i>	ABLATIVE/ POSSESSIVE	indicates i) the source/origin of movement; ii) possession of the marked nominal; iii) purpose or intent; iv) cause; v) about/on the subject of/concerning
	= <i>wa</i>	ALLATIVE	indicates the goal of movement
	= <i>manja</i>	LOCATIVE	indicates a static location
	= <i>kba</i>	DENIZEN	indicates the habitat of an animal or species
	= <i>ma~mærra</i>	PROPRIETIVE/ PRIVATIVE/ COMITATIVE	indicates i) ownership or ‘having’; ii) lack or absence (‘not having’) (in combination with obligatory alienable possession prefix); iii) association (‘with’)
Spatio-temporal clitics	= <i>lhangwiya</i>	PERLATIVE	indicates movement along a path or through space
	= <i>wiya</i>	QUANTIFICATIONAL	indicates universal quantification
Modal clitics	= <i>yedha</i>	PURPOSIVE	indicates purpose, goal, intent
	= <i>maka</i>	EVITATIVE	indicates undesirability
	= <i>baba</i>	REASON	indicates cause or reason

Discourse- structural clitics	= <i>ba</i> , = <i>ka</i> , = <i>ma~m̄arra</i> , = <i>dhangwa~lhangwa</i> , = <i>benā</i>	EMPHATIC	used for focus, intensification and emphasis
	= <i>dha</i>	TERMINATIVE	indicates the end of a discourse segment

Table B.18 Anindilyakwa clitics

Appendix C

=ma ~ =mər̄ra: Marker of symmetrical access to information (i.e. mutual knowledge) from the perspective of the speaker

=ma ~ =mər̄ra is a multifunctional clitic, exhibiting a wide range of functions, involving case, engagement, clause type, and focus/emphatic discourse-pragmatic functions. These were overviewed in §2.5, however *=ma ~ =mər̄ra* as an engagement marker was only discussed briefly. This appendix provides more detail about engagement marking cross-linguistically, before then examining in more detail *=ma ~ =mər̄ra* as a marker of symmetrical access to information from the perspective of the speaker, in Anindilyakwa.

This discussion of the *=ma ~ =mər̄ra* as an engagement marker is preliminary, and still requires further research, backed up by quantitatively driven narrative and conversational corpus work.

C.1 Background to the notion of ‘engagement’

While research into notions of known and unknown information has been the subject of research in domains such as definiteness, evidentiality and pragmatics for quite some time, more recently increased attention has turned to considering how the perspective of speech participants are situated with regard to some object of reference (i.e. speakers’ and addressees’ epistemic relation to propositional content) (Bergqvist 2016: 7). Such systems have been referred to by various terms in the literature, including ‘engagement’ (Landaburu 2007), ‘epistemic stance’ (Heritage 2012; Engelbretson 2007), and ‘verification’ (Kroeker 2001). Landaburu’s (2007) term ‘engagement’, in particular, has been gaining attention in the literature, where it refers to the grammatical encoding of the relative accessibility of an entity or state of affairs to the speaker and addressee (i.e. it addresses a speaker’s assumptions regarding the degree to which their knowledge (or perceived knowledge) is shared (or not) by the addressee). The term ‘stance’ has been used in a similar fashion, but generally in a broadly functional way rather than focusing on grammaticalised systems (Evans et al 2017: 10). I will follow Landaburu (2007) in using the term engagement.

We can observe some commonalities between engagement and other related domains, such as evidentiality (cf. Aikhenvald 2004), mirativity (cf. DeLancey 1997) and egophoricity (cf. San Roque, Floyd, & Norcliffe 2018); domains that are all involved, to some degree, in expressing information about knowledge. However, while for notions such as evidentiality the focus is the information source, for engagement, the focus lies instead on the epistemic perspective and shared (or not-shared) accessibility of the information, relating to the agency and/or involvement of the speaker and addressee (Bergqvist 2016: 3).

While speakers have direct access to their own perspective (therefore being able to confidently assert their knowledge, perceptions, ideas, etc.), they can only assume these things (with varying degrees of certainty) with respect to their addressee (Evans et al 2017: 12). This ‘complex epistemic perspective’ (Evans 2006), where epistemic refers to the attention, knowledge, expectation, beliefs, and opinions relevant to a subject/addressee’s commitment to some state-of-affairs (Bergqvist 2016: 1-2), thus involves assessment of perspective (speaker- or addressee-perspective), and access (symmetric vs. asymmetric access, signaling shared or exclusive knowledge access). In sum, it indicates the speaker’s assumptions about the addressee’s access to information and perspective of some event while simultaneously signaling that of the speaker themselves (Bergqvist 2016: 2).

All natural languages have ways to express and monitor intersubjective relations, however in many languages (particularly well-studied, European languages, for instance) this is not expressed grammatically, but rather through more ‘peripheral’ means, such as interjections, discourse particles and intonational contours. For instance, in English one could say ‘I am, *of course*, happy to be here’ where *of course* signals the speaker’s expectation that the addressee is already aware of this (Bergqvist 2016: 8). For many languages, however, these notions are expressed through grammaticalised systems (i.e. we can think of engagement as the grammaticalised system for expressing perspective and knowledge access, in the same way as tense is the grammaticalised system for representing temporal expression (Evans et al 2017: 3-4)).

Canonical engagement systems have been described in several languages, such as Andoke (language isolate, Colombian Amazon) (Landaburu 2007), which has a symmetrical paradigm of four possible combinations of epistemic access marking (access to both speaker and addressee; access to speaker, not addressee; access to addressee, not speaker; no access to either speaker or addressee). While this kind of canonical marking has not been identified for any Australian language, more restricted kinds of engagement have been demonstrated for a number of these languages. Verbs in Jaminjung (Mirndi) can take one of two optional engagement clitics, one expressing asymmetric speaker authority (=ngarndi EGO), the other expressing symmetric shared authority of speaker and addressee (=mirndi EGO+TU) (Schultze-Berndt 2017). Similarly (although more restricted) Murinh Patha (Southern Daly) has an engagement system in which (certain types and conjugations of) verbs can take an optional initial *k*-consonant, indicating speaker authority (Mansfield 2019).

Given the interactional styles that have been discussed for many Aboriginal languages, in which shared knowledge and collaborative interaction has been noted as a culturally salient property (cf. Eades 1982; Walsh 1997), it is perhaps not surprising that such intersubjective relations would feature in the grammar of these languages. However, such engagement marking has not been observed, to date, as a feature across Australian languages. This could well be a consequence of the descriptive practices of Australianist, given the complex and often difficult-to-analyse semantics of these markers (Mansfield 2019: 45-46), and perhaps this kind of marking might be more widespread than has currently been identified.

I suggest that Anindilyakwa is another example of an Australian language exhibiting a grammatical system of engagement. It involves the optional =ma ~ =m̩arra clitic, which I appears to encode symmetrical access to information between speaker and addressee (i.e.

mutual knowledge), but framed from the perspective of the speaker. This is discussed in detail in §C.2.

C.2 The distribution and meaning of *=ma ~ =mər̥ra*: Marker of symmetrical access to information from the perspective of the speaker

=ma ~ =mər̥ra can occur with all types of verbs (i.e. it is not restricted on a semantic basis to any predicate type), and occurs with all possible inflectional TAM combinations in positive polarity contexts¹³⁵. It is disallowed, however, in all negative polarity contexts (both involving IRREALIS-V-PST marking, and the NEG.NPST circumfix¹³⁶). This is demonstrated in Table C.1.

Inflectional affixes		<i>=ma ~ =mər̥ra</i> possible?
Portmanteau prefix	TAM suffix	
REALIS	PST/NPST/Ø	✓
IRREALIS	PST/NPST/Ø/POT	✓
	PST (+ NEG <i>nara</i>)	✗
DEONTIC	NPST/Ø/POT	✓
NEG.NPST	NEG.NPST	✗

Table C.1 Possible combinations of inflectional TAM marking with *=ma ~ =mər̥ra*

As mentioned above, I suggest that *=ma ~ =mər̥ra* appears to act as an (optional) engagement marker in Anindilyakwa, expressing both i) symmetrical access to information between the speaker and addressee (i.e. information mutually taken for granted as being shared between the two discourse participants), and ii) speaker-perspective. These two dimensions encoded by *=ma ~ =mər̥ra* are displayed in Table C.2. As is demonstrated in this table, Anindilyakwa does not display a canonical engagement system, with only this one category able to be expressed grammatically (i.e. there is no form to express asymmetrical information access, or addressee-perspective).

¹³⁵ This differs from some of the other Australian languages that have been claimed to display engagement marking, which are restricted to particular verb types or inflectional marking combinations.

¹³⁶ The NEG.NPST circumfix involves the combination of *ng- ~ a-* prefix and *-ma* suffix. Given that the *-ma* suffix here must obligatorily occur in combination with the *ng- ~ a-* prefix, and cannot occur in free variation with *-mər̥ra* (i.e. the suffixal element must be *-ma* within the NEG.NPST circumfix). Therefore I analyse this as distinct from the *=ma ~ =mər̥ra* marker discussed in this section.

	Speaker-perspective	Addressee-perspective
Asymmetric		
Symmetric	✓	

Table C.2 Access and perspective encoded by *=ma ~ =mər̥ra*

With respect to information access, *=ma ~ =mər̥ra* appears to indicate symmetrical access (i.e. the speaker acknowledges equal access and shared epistemic authority to the information with the addressee, with whom common ground has been established (and where the common ground may be restricted to specific information shared by the interlocutors, or may extend to general information shared in the speech community) (Hintz & Hintz 2017: 103)).

In addition to expressing this shared access dimension, *=ma ~ =mər̥ra* also appears to indicate that the perspective lies with the speaker. That is, while the information is shared knowledge, accessible to both speaker and addressee, it is framed from the perspective of the speaker.

=ma ~ =mər̥ra often occurs extremely frequently in natural speech. From preliminary analysis of different discourse types, it appears to differ greatly in terms of use and frequency depending on the type and style of discourse. Different discourse genre and sentence types are listed in Table C.3, along with an approximate indication of the frequency with which *=ma ~ =mər̥ra* occurs.¹³⁷

	<i>=ma ~ =mər̥ra</i> disallowed	<i>=ma ~ =mər̥ra</i> occurs infrequently	<i>=ma ~ =mər̥ra</i> occurs moderately	<i>=ma ~ =mər̥ra</i> occurs frequently
Repeated discourse segments				✓
Contextual/background information				✓
Encyclopaedic descriptions/ gnomonic knowledge				✓

¹³⁷ These preliminary findings must, of course, be substantiated quantitatively. This is left for future research.

First-hand eyewitness accounts; personal recounts				✓
Elicited material				✓
Dreamtimes stories			✓	
Biblical stories			✓	
Imperative speech acts		✓		
Interrogative speech acts		✓		
Negative polarity contexts	✓			

Table C.3 Frequency of *=ma ~ =mər̥ra* depending on discourse or sentence type¹³⁸

As displayed in Table C.3, contextual, background, gnomic and encyclopaedic information, as well as repeated or reiterated information occurs frequently with *=ma ~ =mər̥ra*, as does personal recounts and elicited material. *=ma ~ =mər̥ra* also occurs with moderate frequency in Dreamtime and Biblical stories. It is less frequent, although still occurs, in imperative and interrogative speech acts, but is disallowed in all negative polarity contexts. These different kinds of information and discourse styles are examined in detail below. In this section, particularly in the context of imperative speech acts, I also look at the interaction between *=ma ~ =mər̥ra* with different modal categories.

Information established in immediate contexts

Mutual knowledge can be established in immediate contexts through (for example) repetition and reiteration of information. This includes discourse segments repeated directly after one another, as in example (C.1), or information being reiterated after it has already been established in the discourse, as in example (C.2). In both of these examples, we can observe that in the first instance the verbal predicate does not take the *=ma ~ =mər̥ra* clitic, but when repeating or reiterating the information the *=ma ~ =mər̥ra* clitic occurs. In (C.1) *-mebi-* ‘sing’

¹³⁸ This table refers only to the MUT use of *=ma ~ =mər̥ra* in independent clauses. There are other restrictions on the DEP use of *=ma ~ =mər̥ra*, which occurs in dependent clauses, however this is discussed in §2.5.3.

is uttered twice, whereby the second iteration takes the =*ma* ~ =*mər̥ra* clitic. In (C.2), the speaker provides the information that the tide went out (-*yalkwudi*- ‘become low tide’), and in the following discourse segment reiterates this fact, using this second instance to provide contextual information for the subsequent event (the land drying out, *akbərəngka*). As with example (C.1), here the introduction of this information does not take the =*ma* ~ =*mər̥ra* clitic, while the second instance (which has now been introduced to the common ground) does take =*ma* ~ =*mər̥ra*.

C.1) *n-aka* *nenəngkwarba* *nə-dhaka-na=ma*
 3M-this 3M.man REAL.3M>NEUT-cook-NPST=MUT
anhəngə *akwa* *n-errikbə-na=ma* *dhilhingena*
 NEUT.food and REAL.3M>NEUT(?)-throw-NPST=MUT FEM.salt
kərrəwəra *anhəng=manja* *akwa* *nə-məkm-arn* *m-akəna*
 above NEUT.food=LOC and 3M-many-this(?) VEG-that
menelamba *akwa* *nə-mebi-na* *nə-mebi-nə=ma*
 VEG.plate and REAL.3M-sing-PST REAL.3M-sing-PST=MUT
emeba
 NEUT.song
 ‘The man cooks the food, throws on the salt, and sings a song’ [author translation]
 (JL, JRB1-023-01, 00.31.20)

C.2) *akwa* *nəmə-yalkwudi-na* *arakba* *m-akəna*
 and REAL.VEG-become.low.tide(?) -PST COMPL.ACT VEG-that
makarda
 VEG.sea
 and the tide went out
 (00:03:17.506 - 00:03:19.697)

after *nəmə-yalkwədə-nə=ma* *dhungu* *makarda*
after REAL.VEG-become.low.tide-PST=MUT ?? VEG.sea

After the tide went out
 (00:03:20.617 - 00:03:22.759)

arakba ne-kbərəngka=dha ngalyə=dha
 COMPL.ACT 3M-dry=TRM place=TRM
 the land dried out
 (00:03:23.029 - 00:03:24.970)
 (NW, A3368a Side1, a1.1 Chasm Island)

Similarly in example (C.3), information about a series of events is provided (with no =*ma* ~ =*mər* marking). After this information is established (that the mother dog was jumping all over the place, barking, being angry and fighting), it is reiterated and elaborated upon, with an unsurprising resolution to the sequence of events provided ('the dog barked, bit the snake and threw it away'). This reiteration and elaboration occurs with =*ma* ~ =*mər* marking (i.e. it is information that has been introduced to the addressee, is obvious to the addressee, or information that the speaker perceives as being expected by the addressee).

C.3) *yingi-yamarrka-Ø dh-akəna dhirndh-adikba? dh-akəna*
 REAL.FEM-doing.what-PST FEM-that 3F.mother-KIN.3F FEM-that
dhuwarda ying-adhirbulha-nge=ka dh-aka
 FEM.dog REAL.FEM-bang-PST=EMPH FEM-that
ying-arda-nge=ka. yingi-yamarrka-Ø?
 REAL.FEM-call.out-PST=EMPH REAL.FEM-doing.what-PST
awinyambe=ka nenə-ngaje-yi-ne=ka arakba
 NEUT.anger=EMPH REAL.3M.DU(??)-hit-RECIP-PST=EMPH COMPL.ACT
dh-akəna=manja dhingarna narri-ngaje-yi-na.
 FEM-that=LOC FEM.snake REAL.3A>NEUT(??)-hit-RECIP-PST
yingka ying-arkadha-ngə=mər *nang-anga-Ø=mər*
 see! REAL.FEM-bark-PST=MUT REAL.FEM>FEM-bite-PST=MUT
nanga-rreku+wurra-ngə=ma angerriba
 REAL.FEM>FEM-long.and.thin-throw.away-PST=MUT to.there
 'What would the mother dog do? That mother dog jumped all over the place and barked. What would she do? She was very angry and was fighting with the snake. She barked, she bit the snake and then threw it away'
 (GL, A3369a Side1, a3.5 Dingarna-langwa akwa wurruwarda-langwa 'Snake and a dog')

Contextual information

Knowledge that is obvious through context is frequently marked with =*ma* ~ =*mər̥ra*. For instance, in example (C.4) the speaker asks a rhetorical question (‘What’s happened to him? What’s he calling out for?’), which both the speaker and addressee know the answer (i.e. it’s evident from the context that the boy is excited about the lizard). Thus both the question and response are marked with =*ma* ~ =*mər̥ra*, indicating this shared contextual knowledge. It is evident from the context that the boy is excited about the lizard, and it is expected by the speaker and addressee that the boy will eat the lizard.

- C.4) “*aba* *ni-yamarrka-Ø=me=ka* *n-aka*,
 NEUT.that.one REAL.3M-doing.what-PST=**MUT**=EMPH 3M-that
ni-yamarrka-Ø=mər̥ra=bena *n-ardija-ju-Ø=mər̥ra?*
 REAL.3M-doing.what-PST=**MUT**=EMPH REAL.3M-call-CAUS-USP=**MUT**
nu-kukwangba-Ø=mər̥ra *y-aka* *yimarndhakuwaba*.
 3M-get.excited-USP=**MUT** MASC-that MASC.blue.tonged.lizard
nungkwa=lhangwa *ki-je-na=mər̥ra* *nəngk-ena* *mamudakba* *iya*
 2.PRO=POSS IRR.2-eat-NPST=**MUT** 2-this VEG.tail and
arəngka *iya* *yinumalya* *iya* *awa* *adhənu*
 NEUT.head and MASC.fat and NEUT.liver in.short.time
əmba *Ø-yəngminjadhe-Ø=ka* *arakba*. *kaba!*
 but DEON.2-be.quiet-USP=EMPH COMPL.ACT be.quiet
yakə-lhəka-ja *arakba* *angalyu=wa*” *yingi-yama-Ø*
 IRR.12-go-NPST COMPL.ACT NEUT.place=ALL REAL.3F-say-PST
 “‘Oh! What’s happened to him, what is he calling for? He is so excited about this blue-tongued lizard. It’s yours! You’re going to eat the tail and the head and the fat and the liver soon, just keep quiet now! Shut up! Let’s go back to our camp now” she said’
 (GL, A3369a Side1, a3.3 Kwurrirda Kwurrirda)

Encyclopaedic/gnomic/traditional/general knowledge

General knowledge – information that is particularly well established and acknowledged to be recognised within the larger speech community – appears to often occur with =*ma* ~ =*mər̥ra*

marking. This includes gnomic knowledge (information that is assumed by the speech community to be known by everyone by virtue of some universal, intrinsic truth value), encyclopaedic knowledge (where interlocuters hold (learned) knowledge about the outside (generally natural) world), traditional/cultural knowledge (where interlocuters hold shared knowledge of local customs and practices (information about the ‘inside’ world)) (Hintz & Hintz 2017: 101). This is demonstrated in examples (C.5) and (C.6), which are expressing encyclopaedic knowledge put forth by the speaker. In example (C.5), *-ngirdhe-* ‘swallow’ is marked with *=ma ~ =mər̥ra*, where the speaker is discussing the fact that snakes, when they eat animals, swallow their prey whole; a statement which is assumed to be a generally known fact. Similarly, in the description of the *marrangkurr̥ra* ‘red bark tree’ in example (C.6), where the speaker is discussing well-known encyclopaedic information regarding the societal and environmental properties of this tree, all the verbs are *=ma ~ =mər̥ra* marked.

C.5) *nganj̥a-kwaba n̥əŋ-eniŋbala, ngakwurr-aj̥a-kwaba ngarn-ingbala*
 1.PRO.CofR-also 1-not.know 12A.PRO-CofR-also 12A-not.know
ngarna. y-ak̥əna yingarna nu-warde-na=manja
 12A.this MASC-that MASC.snake REAL.MASC>MASC-kill-NPST=LOC
yin̥əŋəŋwəŋba nara ng-angu-ma y-ak̥əna
 MASC.animal NEG NEG.NPST-bite-NEG.NPST MASC-that
yi-yukwayuwa=wiya a-lyubalyu-ma wubər̥ra wurruwarda
 MASC-small=QUANT NEG.NPST-eat-NEG.NPST like COLL.dog
akwa yu-kwala yin̥əŋəŋwəŋba, ngalh-aja y-ak̥əna
 and MASC-other MASC.animal MASC.PRO.CofR MASC-that
*yingarna yiruk-bulhirra y-ak̥əna ken̥ə-ngirdhe-na=**ma***
 MASC.snake ??-unfinished? MASC-that IRR.MASC>MASC-swallow-NPST=**MUT**
arakba

COMPL.ACT

‘I don't know, none of us know. When a snake kills an animal it doesn't bite the animal into little pieces, it doesn't eat like dogs and other animals, a snake just swallows the animal whole’

(GL, A3369a Side1, a3.5 Dingarna-langwa akwa wurruwarda-langwa ‘Snake and a dog’)

C.6)	<i>mema</i>	<i>marrangkwurra</i>	<i>nəmə-lhungku+warringə-na=ma</i>	
	VEG.this	VEG.red.bark.tree	REAL.VEG-grow-NPST=MUT	
	<i>adhəlyuma=lhangwa=lhangwa.</i>		<i>warnumamalya</i>	<i>nuw-alyəbarə-nə=ma</i>
	NEUT.river=POSS=ABL		3A.people	REAL.3A>VEG-eat-NPST=MUT
	<i>mamamamuwa</i>	<i>mamadhidhira.</i>	<i>arakba+wiya</i>	<i>warningkwarba</i>
	VEG.seed.pod	VEG.seed	long.ago	3A.man
	<i>narruma-ngekburaka-Ø=ma</i>		<i>malamukwa</i>	<i>mema=mərra</i>
	REAL.3A>VEG-make-USP=MUT	VEG.canoe	VEG.this=INST	
	<i>mememeka</i>			
	VEG.tree.trunk			

‘Red bark trees grow along rivers. People used to eat the seeds. A long time ago men used to make canoes from the wood of these trees’

(Groote Eylandt Linguistics 1993: 28)

As demonstrated in the examples thus far in this section, it is not surprising that the =*ma* ~ =*mərra* marker (which indicates symmetrical access to information between the speaker and addressee) occurs frequently with background or contextual information; information specific to the interlocuters, which is in the common ground, established in immediate contexts (such as reduplicated and reiterated discourse segments); as well as more general knowledge information (including gnomic, encyclopaedic and traditional/cultural information that is assumed knowledge held at a wider speech community level). The frequency with which =*ma* ~ =*mərra* occurs in these contexts can also explain Leeding’s (1989: 437) claim that this marker is ‘an aspect morpheme which also incorporates tense’. Contexts in which contextual information, gnomic knowledge and generally perceived truths are expressed tend to be expressed with imperfective readings, so one can see how this marker might be mistaken for one expressing imperfective aspectual readings. It is clear that this is not the case, however, given that perfective readings can be expressed with the =*ma* ~ =*mərra* marker (as in example (C.7)), and imperfective readings can occur without the =*ma* ~ =*mərra* marker (as in example (C.8)). Leeding’s (1989) aspectual claims involving the =*ma* ~ =*mərra* marker are discussed further in §6.4.2.3.

C.7)	<i>James</i>	<i>n-angaba</i>	<i>ni-yedha-ngə=ma</i>	<i>Numbulwar</i>
	James	3M-that.over.there	REAL.3M-arrive-PST=MUT	Numbulwar
	<i>arakba</i>			

REAL.MASC>NEUT-long.and.thin-poke-PST=MUT

n-alh+dhadha-ngə=ma *amarda*

REAL.MASC>NEUT-long.and.thin-poke-PST=MUT NEUT.grass

biya angerriba ni-ng-bijangi-nə=ma

and.then to.over.there REAL.MASC-thigh(?)-jump-PST=MUT

y-angaba

MASC-that.over.there

‘The Blue Tongue Lizard roasted the Crocodile and made her scream. The Crocodile took the pandanus and she got hold of it and she got it wet down under. And the Blue-tongued Lizard was jumping and hopping over and there it was poking and poked the grass and then it jumped over there’
(DA, A3370a Side1, a5.3 ‘Washing ceremony’)

Personal stories and recounts

Another discourse genre in which =*ma* ~ =*mər̥ra* is not infrequently encountered is in personal stories and recounts. In these cases, the narratives are clearly reflecting the perspective of the speaker (as discussed by van Egmond (2012: 229)), but also, in terms of speaker/addressee access, I suggest in these cases that the =*ma* ~ =*mər̥ra* marker here also presents the information as shared, even though the information was not previously known by the addressee, as a way to invite the addressee into the speaker’s ‘mutual knowledge community’ (Hintz & Hintz 2017: 95). (C.10) provides an example of this, where in this personal narrative, describing how the speaker and her family used to spend time at the river when she was a child, every verb in this sequence takes the the =*ma* ~ =*mər̥ra* marker.

- C.10) *yirrə-lhəka-rnə=ma* *yirrə-dhirrərndhə-nə=ma* *adhəlyuma=wa*
REAL.1A-go-PST=MUT REAL.1A-descend-PST=MUT NEUT.river=ALL
yirrə-ngambe-nə=ma *yakwujina. akwalha=manja*
REAL.1A-swim-PST=MUT there NEUT.some=LOC
wurradhadhuyuwangkwa na-lhəke-nə=ma *adhəlyuma=wa*
3A.old.woman REAL.3A-go-PST=MUT NEUT.river=ALL
na-war.da-ngə=ma *washing yakwujina*
REAL.3A-work-PST=MUT NEUT.washing there
adhəlyuma=manja. yirra-rrbə-rrəngka-Ø=ma

NEUT.river=LOC REAL.1A>3A-REDUP-see-PST=MUT
na-yan-jamarrka-Ø=ma *yakwujina*
 REAL.3A-REDUP-how.to.do-PST=MUT there
adhalyuma=manja *narrəma-mərndak-ajirra-ngə=ma*
 NEUT.river=LOC REAL.3A>VEG-many-wash-PST=MUT
dhəmbalha-mərriya *narrəma-mərndak-ara-rurrmaja-Ø=ma*
 VEG.clothes-the.rest REAL.3A>VEG-many-REDUP-dry-AM=MUT
karrawara *amarda-mərriya=manja*
 above NEUT.grass-the.rest=LOC

‘We went down to swim at the river there. Sometimes old women also went to the river to do washing at the river there. We used to watch older women wash their clothes at the river and then they dried their clothes on dry grasses’

[speaker translation]

(JL, JRB1-007-01, 00.00.21-00.01.09)

In surveying a selection of (14) personal narratives, it can be observed that the frequency of the occurrence of =*ma* ~ =*mərriya* on independent, positive polarity verbs ranges considerably, between 12% – 95% in the narratives that were examined. The date of the recording of the data appears to be a factor in the frequency of =*ma* ~ =*mərriya*, with the narratives from the legacy collection (collected mainly in the 1970s-80s) having a lower rate of =*ma* ~ =*mərriya* (12%–22% of independent, positive polarity verbs), while for those narratives recorded between 2016-2019, =*ma* ~ =*mərriya* occurred with 37–95% of independent, positive polarity verbs (with the majority of these narratives showing 70%+ occurrence with =*ma* ~ =*mərriya*). The narratives with the highest frequencies of =*ma* ~ =*mərriya* marking also tended to be stories focussed on topics that are very salient and acknowledged to be well-known within the larger speech community (stories about bush medicine, and the Seven Sister’s constellation, for example). These distributions, particularly the difference in the frequency of =*ma* ~ =*mərriya* marking in the legacy data as compared to the contemporary data, clearly warrants further research.

Dreamtime stories

van Egmond (2012: 231) suggests that =*ma* ~ =*mərriya* is rare in Dreamtime stories involving third person participants (claiming that given the narrator cannot have been an eyewitness to the scene, =*ma* ~ =*mərriya* is therefore (almost) absent from this discourse genre). However, I

have not found this to be the case (see (C.11), for example, in which =*ma* ~ =*mər*ra occurs frequently). Surveying five Dreamtime stories collected in the 1970s-80s, I found the frequency of independent, positive polarity verbs marked with =*ma* ~ =*mər*ra to be very similar to that of the personal narratives for data from that same time period (12%–42%). Again, what appears to affect the distribution of =*ma* ~ =*mər*ra in these narratives is the topic of the narrative, and the assumed familiarity of the narrative with the addressee. A larger data set of Dreamtime stories must, of course, be analysed in order to examine this in greater detail, but this will be left for future research.

C.11)	<i>y-akəna</i>	<i>yiningburna</i>	<i>n-ambarri-nə=ma</i>	<i>y-akəna</i>	<i>Angwuda</i>
	MASC-that	MASC.sea.snake	REAL.MASC-sit-PST= MUT	MASC-that	Angwuda
	<i>y-akəna</i>	<i>ngəwa</i>	<i>nə-lhəke-nə=ma</i>	<i>kemba</i>	<i>bi:::ya,</i>
	MASC-that	continue	REAL.MASC-go-PST= MUT	then	and.then
	<i>y-angaba</i>	<i>Milyarrumanja</i>	<i>yakwujina</i>	<i>kemba</i>	<i>y-akəna</i>
	MASC-that.over.there	Milyarrumanja	there	then	MASC-that
	<i>nə-mungkwadhə-nə=ma</i>		<i>akəna</i>		
	REAL.MASC-scavenge-PST= MUT		NEUT.that		
	<i>nu-ngwu+burrukwa-Ø=ma</i>		<i>edhirra</i>	<i>kembirra</i>	
	REAL.MASC-hole(?)+disappear-PST= MUT		NEUT.mouth	then	
	<i>akungwa</i>	<i>akəna</i>	<i>yakwujina</i>	<i>n-akuma-rnə=ma</i>	
	NEUT.water	NEUT.that	there	REAL.MASC>NEUT-put-PST= MUT	
	<i>akungwa=wiya</i>	<i>akəna,</i>	<i>akwa</i>	<i>a-mərndak-akəna</i>	<i>eka</i>
	NEUT.water=QUANT	NEUT.that and	NEUT-many-that		NEUT.tree
	<i>nuw-alk+aye-na=ma</i>		<i>y-akəna</i>	<i>ngalhuwa-kiya,</i>	
	REAL.NEUT-long.and.thin+be.upright-NPST= MUT		MASC-that	MASC.PRO-two	
	<i>y-ayika</i>	<i>y-akəna</i>			
	MASC-tree	MASC-that			
	<i>n-alk+aye-na=ma</i>		<i>a-mərndak-akəna=manja</i>		
	REAL.MASC-long.and.thin+be.upright-NPST= MUT		NEUT-many-that=LOC		
	<i>edhirra</i>	<i>akungwa,</i>	<i>y-ayika</i>	<i>y-akəna</i>	<i>y-awulka</i>
	NEUT.mouth	NEUT.water	MASC-tree	MASC-that	MASC-geebung.tree
	<i>y-akəna</i>	<i>n-alk+aye-na=ma</i>			
	MASC-that	REAL.MASC-long.and.thin+be.upright-NPST= MUT			

yi-mərndak-akəna yakwujina

MASC-many-that there

n-alk+ayi-ju-wa=ma

y-akəna

REAL.MASC >MASC-long.and.thin+be.upright-CAUS-PST=**MUT** MASC-that

yiningburna

y-akəna

yinumamalya=wiya

y-akəna

MASC.sea.snake

MASC-that

MASC.man=TEMP

MASC-that

ayika=mərri

n-alk+eye-na=ma

yakwujina

NEUT.tree=COM

REAL.MASC-long.and.thin+be.upright-NPST=**MUT** there

y-awulka

y-akəna

yini-yengbi-ji-na=ma

MASC-geebung.tree

MASC-that

REAL.1A>MASC-speak-CAUS-NPST=**MUT**

y-akəna

MASC-that

‘That Sea-snake got there at Angwuda, it went on until there at Milyerrumanja, there he dug a hole and there’s a water in there, that he had put, the waters are there where he had dug the holes. He dugged and put the water in the hole and there are trees standing there, it’s him, the trees that are standing are that’s him near the water-hole, that geebung trees that standing is him, he put them there, the Sea-snake put them there when he was a person and that’s him standing as a tree, that’s him that standing there and we called him Yawulka’
(NJ, A3370a Side1, a5.17 Yiningburna ‘Seasnake’)

Biblical stories

As with Dreamtime stories (i.e. stories set in the distant past), Biblical stories (also set in the distant past) also occur with =*ma* ~ =*mərri*, which would again suggest that the speaker does not need to be ‘an eyewitness to the scene’ (*contra* van Egmond 2012). The distribution of =*ma* ~ =*mərri* marking in Biblical stories is consistent with that outlined throughout this section, in which contextual and background information occurs frequently with =*ma* ~ =*mərri*. An example of this can be seen in (C.12).

C.12) *arakb-ərakba-kiya+wiya*

N-enəngi-karrawara

REDUP-COMPL.ACT-two+TEMP

3M-M.ALP-above

ni-yarrk-akuma-rnə=ma

a-mərndak-enənaayakwa

REAL.3M-voice-put-PST=MUT NEUT-many-this NEUT.language
warni-kə-rrəngki=yedha warnumamalya kajungwa ena=lhangwa=manja
 3A-NSR-see=PURP 3A.person so.that 3M.PRO=POSS=LOC
ayakwa karru-məmi-rrəngkə-ni=yedha akwa
 NEUT.language IRR.3A>NEUT-head(?)=see-PST=PURP [=look.carefully] and
ka-werrik-ambilyi=yedha kembirra enuwa=manja
 IRR.3A-chest-stay.PST=PURP [=believe] then 3M.PRO=LOC
 ‘Long ago God gave his word to people so they could see it and understand it and believe in him’
 (Bible Society in Australia 1992: i)

Interaction of MUT =ma ~ =mər̥ra with modal categories

The =ma ~ =mər̥ra marker can occur with all possible inflectional TAM combinations in positive polarity contexts, including expressing epistemic, dynamic and deontic modal readings (involving IRREALIS/DEONTIC portmanteau prefix + TAM suffix inflectional paradigms). This is counter to Stokes’ (1982, 1984) proposal that the =ma ~ =mər̥ra marker indicates a ‘statement of fact’. =ma ~ =mər̥ra can occur, for instance, with utterances expressing epistemic possibility (as in example (C.13)) or past counterfactual readings (as in example (C.14)). In (C.13), the speaker and addressee share the knowledge of the possible future event of the dog biting, and similarly in (C.14) the speaker states a potential event occurring in the past that didn’t come to pass, of whose non-actualisation the addressee is assumed to be familiar with.

C.13) *James, wurr-akəna wurruwarda kab-angi-ya=ma*
 James COLL-that COLL.dog **IRR.FEM>2-bite-POT=MUT**
 ‘That dog might bite you’ [speaker translation]
 (JL, JRB1-085-01, 00:10:56-00:11:10)

C.14) *akəna=lhangwa en-eja n-enəngə-karrawara*
 NEUT.that=ABL 3M.PRO-CofR 3M-M.ALP-above
 kən-awinyamba-dhə-nə=ma n-akəna ngakwurrūwa=wa
 IRR.3M-angry-INCH-PST=MUT 3M-that 12A.PRO=ALL
 ngarr-ababər̥na=lhangwə=wa ngamumamalya

12A-many=POSS=ALL

12A.people

‘Because of that, God should have been angry with all of us [but he had pity on us]’ [source translation]

(Bible Society in Australia 1992: 905)

While (as demonstrated in examples (C.13) and (C.14)) the *ma ~ =mər̥ra* marker does not occur exclusively with factual statements, it is true that as a consequence of its role in expressing symmetrical access between interlocutors and speaker-focussed perspective, *ma ~ =mər̥ra* does occur much more frequently with factual utterances (given that often shared knowledge or assumed shared knowledge does indeed have a factual basis, even though this does not have to be the case, and could encompass, for example, perceived truths or shared doubts and uncertainties).

Interaction of MUT =*ma ~ =mər̥ra* with sentential mood (e.g. non-declarative sentences)

=*ma ~ =mər̥ra* occurs generally with declarative sentence types, however it can occur (more infrequently) with imperatives and interrogatives.

Imperatives and hortatives

Imperatives and hortatives are not frequently marked with =*ma ~ =mər̥ra*. Given that imperatives tend to be addressee-focussed, and that both imperatives and hortatives generally involve asymmetrical epistemic authority, it is not surprising that =*ma ~ =mər̥ra* is not commonly associated with these sentence types. However, imperatives/hortatives can (more infrequently) involve this marking (*contra* van Egmond 2012: 230), as displayed by imperatives (involving both DEONTIC/IRREALIS + TAM suffix inflectional paradigms) in examples (C.15) – (C.18), and hortatives in examples (C.19) – (C.20). =*ma ~ =mər̥ra* in these instances occurs when the command is anticipated by the addressee (i.e. the command is expected by the addressee through the context or assumed knowledge). For instance, in example (C.17), the speaker tells the addressee that she should be attending school and learning how to write, information in the common ground that the addressee accepts (i.e. the utterance implies something along the lines of: ‘*as you and I are both aware, you should keep going to school like a good girl, and you should learn to write*’).

- C.15) *Ø-bakə-na=ma*
 DEON.2-drink-NPST=MUT
 ‘Drink this!’ [source translation]
 (Stokes n.d.-a: 75)
- C.16) *kirru-murnda-murndhirra w-engkirra-ja=ma*
 3A-REDUP-careful DEON.2A-listen-NPST=MUT
 ‘Everyone listen carefully!’
 (Stokes n.d.-b: 70)
- C.17) *kə-lhəka-ja=mər̥ra ngəwa nəŋk-eningaba nəŋk-akəna*
 IRR.2-go-NPST=MUT continue 2-good 2-that
skul=uwa, k-arrikarre-na=ma nungkuwa
 NEUT.school=ALL IRR.2-write-NPST=MUT 2.PRO
 ‘You should keep going to school like a good girl, you should learn to write’
 (JW, A3369a Side1, a3.2 ‘Telling a child to go to school’)
- C.18) *amangkadhər̥ra=ma ngəwa ki-yengbi-na=ma*
 NEUT.introduced=INST continue IRR.2-speak-NPST=MUT
 ‘You will just speak English’
 (Stokes n.d.-b: 10)
- C.19) *yirukwujilangwa ngenu-kuwarre-na=ma*
 MASC.bandicoot DEON.1>MASC-cut-NPST=MUT
 ‘Let me cut up the bandicoot!’
 (Stokes n.d.-b: 71)
- C.20) *biya ni-yama-Ø wurradhədhīywangkwu=wa, “Yelakwa*
 and.then REAL.3M-say-PST 3A.old.women=ALL here
ngarri-lhurrngkwu-na=ma ngarna” ni-yama-Ø
 DEON.12A-stay.for.day-NPST=MUT 12 A.this REAL.3M-say-PST
 ‘He said to the old ladies, “Let's stay here for the day”’
 (GL, A3369a Side1, a3.5 Dingarna-langwa akwa wurruwarda-langwa ‘Snake and a dog’)

Interrogatives

Similarly, interrogatives do not frequently take $=ma \sim =m\grave{a}rra$ marking. When $=ma \sim =m\grave{a}rra$ does occur with interrogatives, it implies that the speaker and addressee are on the same page with respect to the response to the question. Consequently, $=ma \sim =m\grave{a}rra$ is disallowed in yes-no interrogatives where the speaker does not know what the addressee's response will be (i.e. involving asymmetrical access, outside of the speaker's perspective). Compare examples (C.21) and (C.22).

- C.21) *Carol-a n\angki-yendhe-n tea-a?*
Carol-a REAL.2>NEUT-want-NPST NEUT.tea-a
'Do you want a tea, Carol?' [author translation]
and she say, she'll say to me, yawu, ngayuwa
yes 1.PRO
n\angi-yendhe-na=ma tea-a
REAL.1>NEUT-want-NPST=MUT NEUT.tea-a
'Yes, I want a tea' [author translation]
(JL, JRB1-073-01, 00.02.05-00.02.13)

- C.22) **Carol-a, n\angi-yendhe-na=ma tea-a?*
Carol-a REAL.2>NEUT-want-NPST=MUT NEUT.tea-a
(asked by JB, rejected by JL, corrected by JL as '*Carol-a, n\angk-endhe-n tea-a*')
(JL, JRB1-073-01, 00.02.18-00.02.25)

Yes-no interrogatives can, however, take $=ma \sim =m\grave{a}rra$ marking in rhetorical questions, or questions in which the answer is not known to the speaker, and whose answer is also assumed by the speaker not to be known by the addressee (i.e. where a lack of knowledge is shared by the interlocuters). For instance, in example (C.23), the speaker asks himself 'what is it doing, how will it eat them, will it bite them?'. $=ma \sim =m\grave{a}rra$ can occur here given that the speaker asks a question (to himself) that he makes clear he does not know the answer to. Similarly, (C.24) and (C.25) are questions whose answers are unknown to the speaker, and are posed to audiences that the speaker presupposes also do not know the answer (e.g. (C.24) implies 'is John getting fat? *I don't know, and I assume you don't know either?*').

- C.23) “*kəŋgi-yamarrkə-na=mə=ka* *dh-aka* *adhuwaba?*”
 IRR.FEM-doing.what-NPST=MUT=EMPH FEM-this today
ni-yama-Ø=dha. “*kəŋgi-yamarrkə-na=mə=ka*
 REAL.3M-say-PST=TRM IRR.FEM-doing.what-NPST=MUT=EMPH
kəŋg-alyəbarə-na=ma *dh-aka?*
 IRR.FEM-eat-NPST=MUT FEM-this
karrəŋ-angə-na=ma=na?” *ni-yama-Ø*
 IRR.FEM>COLL-bite-NPST=MUT=TAG REAL.3M-say-PST
nə-maka-jungwu-nə=ma *n-akəna* *mungkwa*
 REAL.3M-tell-RECIP-PST=MUT 3M-that certainly
n-eningbala=dha
 3M-not.know=TRM
 “What’s it doing?” he said. “How will it eat them? Will it bite them?” he said
 to himself. He didn’t know’
 (GL, A3369a Side1, a3.5 Dingarna-langwa akwa wurruwarda-langwa ‘Snake
 and a dog’)

- C.24) *Judy n-akən* *John n-ingmərrə-dhə-na=ma*
 Judy 3M-that John REAL.3M-fat-INCH-NPST=MUT
 ‘Is John getting fat?’ [author translation]
 (ST, JRB1-073-01, 00:21:08.252-00:21:12.292)

- C.25) *James-a* *kəm-angkə-rna=m* *truck-a?*
 James-a IRR.3M>VEG-fetch-NPST=MUT VEG.car-a
 ‘Is James going to fetch the car?’ [author translation]
 (ST, JRB1-073-01, 00:35:28.773-00:35:33.693)

Apparent yes-no questions like (C.26) are in fact not bona fide yes-no questions, but more like polite requests, in which the speaker poses the question to the addressee with the expectation that the reply will be ‘yes’. i.e. =*ma* ~ =*mərra* here indicates the assumption on behalf of the speaker that the response of the addressee is shared with their anticipated response to the question. Thus (C.26) infers something along the lines of: ‘will you fetch the food? *I assume that you will, and that you and I are both aware of this assumption*’.

- C.26) *nungkuwa* ***k-angkə-rna=ma*** *anhəŋga*
 2.PRO IRR.2>NEUT-fetch-NPST=MUT NEUT.food
 ‘Will you fetch the food?’ [source translation]
 (Stokes n.d.-b: 81)

Unsurprisingly, tag questions occur much more frequently with *=ma ~ =mər̄ra*. Tag questions in Anindilyakwa involve either the clitic *=na* in final phrasal position (as in examples (C.27) and (C.28)), or the particle *jerriya* (example (C.29)). They are used to confirm an assumption held by the speaker as true. *=ma ~ =mər̄ra* marker can thus occur with such tag question structures, indicating that the assumption of the speaker is (presumed to be) shared knowledge with the addressee. For instance, in (C.28) the speaker asks ‘you’ll be happy now, won’t you?/right?’ indicating that the speaker and the addressee both share the mutual knowledge that ‘yes, indeed, the addressee will be happy’.

- C.27) *nəŋki-yekirrerra* ***k-ambilya=ma*** *arakba=na*
 2-happy IRR.2-stay.NPST=MUT COMPL.ACT=TAG
 ‘You’ll be happy now, won’t you?’
 (Stokes n.d.-b: 85)

- C.28) ***nə-lyumadhu-Ø=m=na***
REAL.3M-run.away-USP=MUT=TAG
 ‘He ran away, did he?’
 (ST, JRB1-073-01, 00:26:26.292-00:26:27.652)

- C.29) *jerriya* ***nə-lyumadhu-Ø=ma***
 TAG REAL.3M-run.away-USP=MUT
 ‘Did he really run away?’
 (Stokes n.d.-b: 84)

With other positively-biased questions, in which there is an assumption that what the speaker is asking is likely to be true, *=ma ~ =mər̄ra* can also occur. For instance, with interrogatives involving *dhukwa* ‘maybe’, where the response to the question has a greater than 50% chance of being true, the verb can take *=ma ~ =mər̄ra* marking to indicate the shared assumption that speaker and addressee believe the answer to be possible (and potentially probable). For

instance, in (C.30), the speaker asks ‘maybe he will have pity on us?’, where the use of =*ma* ~ =*mər̩ra* invites a positive response from the addressee (in effect inferring something along the lines of ‘will he have pity on us? *both you and I know that this might be the case, maybe he will*’).

- C.30) *dhukwa* *kən-errukwulhi-na=ma* *ngakurruwa* (+rising intonation)
 maybe IRR.3M>12-pity-NPST=MUT 12.PRO
 ‘Will he have pity on us?’ [‘maybe he’ll have pity on us?’]
 (Stokes n.d.-b: 82)

Content questions (wh-questions) are also more likely to take =*ma* ~ =*mər̩ra* marking than yes-no interrogatives, given that they can be used as a means of clarifying information. Thus, =*ma* ~ =*mər̩ra* occurs with content questions that the speaker clarifies with the addressee (where the speaker assumes they know the answer (or have a good idea of what the answer might be) and similarly assumes the addressee knows this information). This is demonstrated in examples (C.31) – (C.35).

- C.31) *ngambi=yedha* *warna na-yedhu-Ø=ma* *Darwin=lhangwa*
 where=PURP 3A.this REAL.3A-arrive-USP=MUT Darwin=ABL
 ‘When did they arrive from Darwin?’
 (Stokes n.d.-b: 88)

- C.32) *wurru-miyembeni=lhangwa* *warnumamalya*
 3A-what=ABL 3A.people
na-lyelyimbukweyi-na=ma
 REAL.3A-talk.together-NPST=MUT
 ‘Who are they talking about?’
 (Stokes n.d.-b: 89)

- C.33) *kərr-ambarrngarna* *arakba* *karna*
 2A-how.many? COMPL.ACT 2A.this
na-mən-angkərree-yi-nə=ma?
 REAL.3A-BENE-run-RECIP-PST=MUT
 ‘How many of you [Aboriginal women] have they [whitefellas] run off with

now?’

(van Egmond 2012: 176)

C.34) *ngambu=lhangwa* *kərri-lhəka-rnə=ma*
where=ABL REAL.2A-go-PST=MUT

‘Where have you been?’

(Stokes n.d.-b: 88)

C.35) *miyembeni=baba* *n-awiyemba-dhu-Ø=ma* *n-akəna=dha*
what=REAS REAL.3M-angry-INCH-USP=MUT 3M-that=TRM

‘Why did he get angry?’

(Stokes n.d.-b: 88)

Negation

As already mentioned, *=ma ~ =mərri* is disallowed in all negative polarity contexts. This includes both negation of past temporally anchored situations (with the verb taking IRREALIS-V-PST inflectional marking) and negation of non-past (present and future) temporally anchored situations (where the verb is inflected with the NEG.NPST circumfix). Compare (C.36) and (C.37), for example, where the marking of *=ma ~ =mərri* is demonstrated as being disallowed in (C.37).

Semantically, it is unclear why *=ma ~ =mərri* should be disallowed in negative polarity contexts. We have observed that *=ma ~ =mərri* can occur with potential future and counterfactual past events (i.e. it is not restricted to occurring with ‘realis’ or ‘factual’ situations), which suggests a semantically motivated explanation for the prohibition of *=ma ~ =mərri* in negative polarity contexts related to negative situations being unrealised situations is not a plausible account. Perhaps there is a credible non-semantic explanation for this distribution; given that in non-past contexts the suffixal form of the NEG.NPST circumfix is *-ma*, perhaps *=ma ~ =mərri* is disallowed due to haplology, and consequently this disallowance has been extended to all negative polarity contexts. It would seem, however, that a satisfying explanation for the restriction of *=ma ~ =mərri* marking in negative polarity contexts is not clear at this stage, and further research will be necessary in order to examine this in more detail.

C.36) *nara* *k-akbærrænga-rna* *nganyangwa* *glaja*
NEG IRR.1>NEUT-find-PST 1.PRO.POSS NEUT.glasses
'I didn't find my glasses' [author translation]
(JL, JRB1-073-01, 00:43:22.883-00:43:27.423)

C.37) **nara* *k-akbærrænga-rnə=ma*
NEG IRR.1>NEUT-find-PST=MUT
(JL, JRB1-073-01, 00:43:31.443-00:43:34.803)

Appendix D

Transitive verb portmanteau prefix paradigms

Portmanteau prefixes were overviewed in §2.3.2, during which the paradigms of intransitive portmanteau prefixes were outlined. This appendix lists the portmanteau prefix paradigms of transitive verbs. The REALIS transitive prefix paradigm is displayed in D.1, the IRREALIS in D.2, and the DEONTIC in D.3.

D.1 REALIS transitive prefixes

Obj Subj	1	1A	12	12A	2	2A	3M	3F	3A/ COLL	MASC	FEM	VEG	NEUT
1					yirra-	ngarra-	(nə)ngen-	((nə)ngə)nga-	(nə)ngarra-	(nə)ngen-	(nə)ngənga-	(nə)ngəma-	(nə)ng-
1A					yirra-	(ni)ngarra- ~ yirra-	yin-	yirrənga-		yin-	yirrənga-	yirrəma-	yirr-
1F.DU							yirrəngən-	yinənga-	yirra-	yirrəngən-	yinənga-	yirrəngəma-	yirrəng-
1M.DU							yin-			yin-		yinəma-	yin-
12							yen-	yanga-	yarra-	yen-	yanga-	yima-	y-
12A							ngen-	ngarrənga-	ngarra-	ngen-	ngarrənga-	ngarrəma-	ngarr-
2	y-	yirr-					nəngken-	nəngkənga-	nəngkarra-	nəngken-	nəngkənga-	nəngkəma-	nəngk-
2A							kən-	kərrənga-		kən-	kərrənga-	kərrəma-	kərr-
2F.DU	yirr-						kərrəngən-		kərra-	kərrəngən-		kərrəngəma-	kərrəng-
2M.DU							kən-	kənənga-		kən-	kənənga-	kənəma-	kən-
3F	ng-	yirrang-	yarrang-	ngarrang-	ng-	kərrang-	yingən-	nanga-	narrənga-	yingən-	nanga-	yingəma-	ying-
3M	ngən-	yirren-	yarren-	ngarren-	ngən-	kərren-	n(en)-		n(arr)en-	n(en)- / n-		nəma-	n-
3A/ COLL	b-				b-		n(arr)en-	narrənga-		n(arr)en- ~ na-	narrənga-	narrəma-	narr-
3F.DU	b- / bəng-	yirrab-	yarrab-	ngarrab-	b(əng)-	kərrab-	na(rrəngə)n-		narra-	na(rrəngə)n-	nenənga-	narrəngəma-	narrəng-
3M.DU	b- / bən-				b(ən)-		nen-			nen-		nenəma-	nen-
FEM	ng-	yirrang-	yarrang-	ngarrang-	ng-	kərrang-	nanga-	nanga-	narrənga-	yingən-	nanga-	yingəma-	ying-
MASC	ngən-	yirren-	yarren-	ngarren-	ngən-	kərren-	n(en)-	yingən- / nanga-	n(arr)en- / narrak-	n(en)- / n-	nanga- / yingak-	nəma- / na-	n-
VEG	ngəm-	yirram-	yarram-	ngarram-	ngəm-	kərram-	nenam-	yingam-	narram-	nenam-	yingam-	na- (_C)	
NEUT	k-	yirrak-	yarrak-	ngarrak-	k-	kərrak-	nenak-	yingak-	narrak-	nenak-	yingak-	nuw- (_V)	

Table D.1 REALIS transitive prefixes (based on van Egmond 2012: 395; Stokes n.d.)

D.2 IRREALIS transitive prefixes

Obj Subj	1	1A	12	1A	2	2A	3M	3F	3A/ COLL	MASC	FEM	VEG	NEUT
1					yiba- ~ yika-	ka-	kən-	kəŋga-	ka -	kən-	kəŋga-	kəma -	k-
1A					yiba ~ yika- ~ ka-		yikən-	yikəŋga-	yika-	yikən-	yikəŋga-	yikəma-	yik-
1F.DU							yiki(rri)ngin-	yikənəŋga-		yikə(rrə)ngən-	yikənəŋga-	yikə(rrə)ngəma-	yikəŋg-
1M.DU							yikin-			yikən-		yikininma-	yikən-
12							yaken-	yakəŋga-	yaka-	yakən-	yakəŋga-	yakəma-	yak-
12A							akən- ~ aken-	akəŋga-	aka-	akin- ~ aken-	akəŋga-	akəma-	ak-
2							kən-	kəŋga-	ka-	kən-	kəŋga-	kəma-	k-
2A	yik-						yikən-	yikəŋga-		yikən-	yikəŋga-	yikəma-	yik-
2F.DU							yikə(rrə)ngən-	yikənəŋga-	yika-	yikə(rrə)ngən-	yikənəŋga-	yikə(rrə)ngəma-	yikəŋg-
2M.DU							yikən-			yikən-		yikənəma-	yikən-
3F	kang-	yikang-	yakang-	akang-	kang-	yikang-	kəŋgən-	kənəŋga- ~ kəŋgəŋga-	karrəŋga-	kəŋgən-	kənəŋga-~ kəŋgəŋga-	kəŋgəma-	kəŋg-
3M	ken-	yiken-	yaken-	aken-	ken-	yiken-	kin- ~ ken-	kənəŋga-	k(arr)en-	ken- ~ kən-	kənəŋga-	kənəma-	kən-
3A/ COLL							k(arr)en-	kinəŋga--		k(arr)en-	karrəŋga-	karrəma-	karr-
3F.DU	kab-	yikab-	yakab-	akab-	kab-	yikab-	ka(rrəŋgə)n-	kenəŋga--	karra-	karrəŋgən-	kenəŋga-	karrəŋgəma-	karrəŋg-
3M.DU							ken-			ken-		kenəma-	ken-
FEM	kang-	yikang-	yakang-	akang-	kang-	yikang-	kəŋgən-	kəŋgəŋga-	karrəŋga-	kəŋgən-	kəŋgəŋga-	kəŋgəma-	kəŋg-
MASC	ken- ~ - kak	yiken- ~ yikak-	yaken- ~ yakak-	aken- ~ akak-	ken- ~ - kak	yiken- ~ yikak-	ken- ~ kenak-	kəŋgən- / kəŋgak-	k(arr)en- / karrak-	k(en)- ~ kən-	kənəŋga- / kəŋgak-	kənəma- / ka-	kən-
VEG	kam-	yikam-	yakam-	akam-	kam-	yikam-	kenam-	kəŋgam-	karram-	kenam-	kəŋgam-	ka- (_C)	
NEUT	kak-	yikak-	yakak-	akak-	kak-	yikak-	kenak-	kəŋgak-	karrak-	kenak-	kəŋgak-	kuw- (_V)	

Table D.2 IRREALIS transitive prefixes (based on van Egmond 2012: 395; Stokes n.d.)

D.3 DEONTIC transitive prefixes

Obj	1, 1A, 1F.DU, 1M.DU, 12, 12A	2, 2A, 2F.DU, 2M.DU, 2TRI	3M/ MASC	3F/ FEM	3A/ COLL	VEG	NEUT
Subj							
1, 1A, 1F.DU, 1M.DU, 12, 12A		= IRREALIS	= REALIS				
2	= REALIS		<i>n-</i>	<i>nga-</i>	<i>wurr-</i>	<i>ma-</i>	<i>Ø- ~ w-</i>
2A			<i>wun-</i>	<i>wurrānga-</i>	<i>wurra-</i>	<i>wurrāma-</i>	<i>wurr-</i>
2F.DU			<i>wungān-</i>			<i>wu(rrā)ngāma-</i>	<i>wu(rrā)ng-</i>
2M.DU			<i>wun-</i>	<i>wunānga-</i>		<i>wunāma-</i>	<i>wun-</i>
2TRI			<i>wu(rrā)bākān-</i>	<i>wu(rrā)bākānga-</i>	<i>wu(rrā)bākāma-</i>	<i>wu(rrā)bāk-</i>	
3M/ MASC	= IRREALIS		<i>en-</i>	<i>enānga-</i>	<i>abān-</i>	<i>enāma-</i>	<i>en-</i>
3F/ FEM			<i>angān-</i>		<i>abārrāng-</i>	<i>angāma-</i>	<i>ang-</i>
VEG			<i>enam-</i>	<i>angam-</i>	<i>abārram-</i>	<i>angak-</i>	
NEUT			<i>enak-</i>	<i>angak-</i>	<i>abārrak-</i>		
3A/ COLL			<i>abān-</i>	<i>abārrānga-</i>	<i>abārra-</i>	<i>abārrāma-</i>	<i>abārr-</i>
3F.DU			<i>abārrāngān-</i>	<i>abānānga-</i>		<i>abārrāngāma-</i>	<i>abārrāng-</i>
3M.DU			<i>abānān-</i>			<i>abānāma-</i>	<i>abān-</i>
3TRI			<i>abārrābukun-</i>	<i>abārrābukunga-</i>		<i>abārrābukuma-</i>	<i>abārrābuk-</i>

Table D.3 DEONTIC transitive prefixes (based on van Egmond 2012: 145-6; Stokes n.d.)

Appendix E

Verb conjugation class suffix paradigms

The four possible TAM suffixes of slot [+3] of the verb template (that combine with portmanteau prefixes in order to express TAM readings) distinguish the six main inflectional conjugation classes, shown in Table E.1.

I largely follow van Egmond (2012)'s analysis of the verbal conjugation classes (itself extended from analyses of Heath (n.d.), Leeding (1989) and Stokes & Waddy (n.d.)). Tables displaying the different conjugation subclasses and their formal TAM suffix paradigms for each class (1-6) are provided below in Tables E.2–E.8. These are based on conjugation class tables of van Egmond (2012: 205-11), however follow my analysis of the TAM suffix paradigms. The reader is directed to van Egmond (2012, chapter 6.3) for further discussion of Anindilyakwa conjugation classes and subclasses.

<i>Conjugation class</i> <i>TAM suffix</i>	1	2	3	4	5	6
NON-PAST	<i>-na/-rna</i>	<i>-na</i>	<i>-ja</i>	<i>-na</i>	<i>-na</i>	<i>stem alternation ~ -na</i>
PAST	<i>-nə/-rnə</i>	<i>-ngə ~ -nga</i>	<i>-nə ~ -rnə</i>	<i>-∅</i>	<i>-wa</i>	<i>stem alternation ~ -nə</i>
USP (∅)	<i>-∅</i>					
POTENTIAL	<i>-ya</i>					

Table E.1 TAM suffixes, organised by conjugation class

Conjugation Class 1A

<i>Conjugation class</i>	1A(i): e.g. <i>-errikbi-</i> 'throw'	1A(ii): e.g. <i>-mebi-</i> 'sing'	1A(iii): e.g. <i>-bijangə-</i>	1A(iv): e.g. <i>-ngambe-</i> 'bathe'	1A(v): e.g. <i>-jungwə-</i> 'die'	1A(iv): e.g. <i>-lharr-</i> 'fall'
<i>TAM suffix</i>						
NON-PAST (-na)	<i>-errikbi-na</i>	<i>-mebi-na</i>	<i>-bijangə-na</i>	<i>-ngambe-na</i>	<i>-jungu-na</i>	<i>-lharr-na</i>
PAST (-nə)	<i>-errikbi-nə</i>	<i>-mebi-nə</i>	<i>-bijangə-nə</i>	<i>-ngambe-nə</i>	<i>-jungu-nə</i>	<i>-lharr-nə</i>
USP (-Ø)	<i>-errikbə-Ø</i>	<i>-mebə-Ø</i>	<i>-bijangə-Ø</i>	<i>-ngambə-Ø</i>	<i>-jungwa-Ø</i>	<i>-lharr-Ø</i>
POTENTIAL (-ya)	<i>-errikbi-ya</i>	<i>-mebi-ya</i>	<i>-bijangi-ya</i>	<i>-ngambi-ya</i>	<i>-jungwi-ya</i>	<i>-lharr-ya</i>

Table E.2 [+3] component of the verbal template for conjugation class 1A verbs (modified from van Egmond 2012: 205)

Conjugation Class 1B

<i>Conjugation class</i>	1B(i): e.g. <i>-mərnduwa-</i> 'count'	1B(ii-a): e.g. <i>-yuwa-</i> 'follow'	1B(ii-b): e.g. <i>-arrka-</i> 'pull'
<i>TAM suffix</i>			
NON-PAST (-na~-rna)	<i>-mərnduwa-rna</i> ~ <i>-mərnduwe-na</i>	<i>-yuwa-rna</i>	<i>-arrkə-rna</i> ~ <i>-arrkə-na</i>
PAST (-nə~-rnə)	<i>-mərnduwa-rnə</i> ~ <i>-mərnduwe-nə</i>	<i>-yuwa-rnə</i>	<i>-arrka-rnə</i>
USP (-Ø)	<i>-mərnduwa-Ø</i>	<i>-yuwa-Ø</i>	<i>-arrka-Ø</i>
POTENTIAL (-ya)	<i>-mərnduwi-ya</i>	<i>-yuwi-ya</i>	<i>-arrki-ya</i>

Table E.3 [+3] component of the verbal template for conjugation class 1B verbs (modified from van Egmond 2012: 207-8)

Conjugation Class 2

<i>Conjugation class</i>	2A: e.g. <i>-ma-</i> ‘get’	2B: e.g. <i>-dhida-</i> ‘shut’
<i>TAM suffix</i>		
NON-PAST (<i>-na</i>)	<i>-me-na</i>	<i>-dhide-na</i>
PAST (<i>-nga~ngə</i>)	<i>-ma-nga ~ -ma-ngə</i>	<i>-dhidə-nga ~ -dhidə-ngə</i>
USP (<i>-Ø</i>)	<i>-mə-Ø</i>	<i>-dhidə-Ø</i>
POTENTIAL (<i>-ya</i>)	<i>-mi-ya</i>	<i>-dhidi-ya</i>

Table E.4 [+3] component of the verbal template for conjugation class 2 verbs (modified from van Egmond 2012: 209)

Conjugation Class 3

<i>Conjugation class</i>	3: e.g. <i>-lhəka-</i> ‘go’
<i>TAM suffix</i>	
NON-PAST (<i>-ja</i>)	<i>-lhəka-ja</i>
PAST (<i>-nə~rnə</i>)	<i>-lhəka-rnə ~ -lhəke-nə</i>
USP (<i>-Ø</i>)	<i>-lhəka-Ø</i>
POTENTIAL (<i>-ya</i>)	<i>-lhəki-ya</i>

Table E.5 [+3] component of the verbal template for conjugation class 3 verbs (modified from van Egmond 2012: 210)

Conjugation Class 4

<i>Conjugation class</i>	4: e.g. <i>-maka-</i> ‘tell’
<i>TAM suffix</i>	
NON-PAST (<i>-na</i>)	<i>-makə-na</i>
PAST (<i>-Ø</i>)	<i>-maka-Ø</i>
USP (<i>-Ø</i>)	<i>-maka-Ø</i>
POTENTIAL (<i>-ya</i>)	<i>-maki-ya</i>

Table E.6 [+3] component of the verbal template for conjugation class 4 verbs (modified from van Egmond 2012: 211)

Conjugation Class 5

<i>TAM suffix</i>	<i>Conjugation class 5: e.g. -ji- ‘CAUS’ (e.g. -yawkabi-ji- ‘forget-CAUS’)</i>
NON-PAST (-na)	-yawkabi-ji-na
PAST (-wa)	-yawkabi-ju-wa
USP (-Ø)	-yawkabi-ji-Ø
POTENTIAL (-ya)	-yawkabi-ji-ya

Table E.7 [+3] component of the verbal template for conjugation class 5 verbs (modified from van Egmond 2012: 211)

Conjugation Class 6

	Augments + suffixes	6Ai e.g. -mungskulh- ‘sleep’	6Aii e.g. -ambily- ‘stay’	6B e.g. -ambarr- ‘sit’	6C e.g. -arjiya- ‘stand’
NPST	final vowel alternation ~ -na ~ -ya	-mungskulha ~ -mungskulhi-ya	-ambilya	-ambarri-ya ~ - ambarrə-na	-arjiya
PST	final vowel alternation ~ -nə	-mungskulhə	-ambilyə	-ambarrə-nə	-arjeey
Ø	-nga-Ø	-mungskulhə- nga-Ø	-	-ambarrə-nga-Ø ~ -ambarra-Ø	-arji-nga-Ø

Table E.8 [+3] component of the verbal template for conjugation class 6 verbs

Appendix F

Speaker metadata

Speaker initials	Year of birth (and death)	Gender	Clan	Community spent most time living
EB	1974/5	M	Warnungwadarrbulagwa	Angurugu
SB	1973	F	Warnungwadarrbulagwa	Angurugu
JB	1955	F	Warnungwamulangwa	Umbakumba
AL	1964-2017	M	Warnungwamadada	Angurugu
PJL	1942	M	Warnungwamadada	Angurugu
JL	1959	F	Warnungwamadada	Angurugu
NL	1969	F	Warnungwamadada	Milyakburra(?)
PL	1971	F	Warnungwamadada	Angurugu
BM	1958	F	Warnindilyakwa	Milyakburra(?)
CM	1955	F	Warnindilyakwa	Umbakumba
RM	1963-2019	F	Warnindilyakwa	Umbakumba
KM	1954	F	Warnindilyakwa	Umbakumba
MM (1)	1955	F	Warnindilyakwa	Umbakumba
MM (2)	1954	F	Warnindilyakwa	Umbakumba
ST	1971	F	Wurraliliyanga	Angurugu, Darwin
CW	1962	F	Warnungangkurrakba	Angurugu
LW	1962	F	Warnungangkurrakba	Milyakburra(?)
MW (1)	1950-2019	M	Warnungangkurrakba	Milyakburra
TW	1967	M	Warnungangkurrakba	Milyakburra
MW (2)	1945	F	Wurraliliyanga	Angurugu

Table F.1 Speakers consulted for this project

Appendix G

EDED video stimuli elicited dataset

The main video stimuli used in this project came from the *Event Description Elicitation Database* (EDED), developed by Patrick Caudal and Robert Mailhammer. The stimuli set is a database of ~150 short video clips, designed as a kind of video questionnaire to elicit different aspectuo-temporal categories.

There are several series of these video stimuli sets. This project used the 2013 series (developed by Caudal and Mailhammer), as well as the 2016 series (developed specifically for use with Anindilyakwa, by Caudal and the author). The 2016 series contains some videos from the 2013 and 2014 series (developed by Caudal and Mailhammer), as well as new videos (created by Caudal and the author). The development of a new 2016 series for Anindilyakwa was necessary due to syncretisms in the Anindilyakwa verb paradigm, which meant that many of the stimuli videos of the 2013 and 2014 video series resulted in syncretic Anindilyakwa verb forms that made distinguishing between different TAM categories difficult.

The EDED stimuli sets are not currently available online, but can be accessed with permission of the database creators (email: pcaudal@linguist.univ-paris-diderot.fr; R.Mailhammer@westernsydney.edu.au).

This appendix lists the 60 videos of the 2013 series in G.1, and the 45 videos of the 2016 series in G.2. Listed in the appendix are still photos of each video, along with examples of some of the stimuli-prompted Anindilyakwa utterances elicited. It should be stressed that these still photos should not be used for elicitation; the videos themselves are the stimuli used for data collection. I list the still photos here just to give the reader a better understanding of the

kind of stimuli used in this project. For access to all the data collected through stimuli-based elicitation, see the archived collection at www.paradisec.org.au/repository/JRB1.

G.1 EDED video stimuli: 2013 series

No. 1 Be sad



- 3.1) *yarrungkwa* *n-aka* *nenəŋkwarba* *nu-werrku+warriya*
yesterday 3M-that 3M.man 3M-chest+sad
'Yesterday the man was sad' [speaker translation]
(JL, JRB1-022-01, 00.02.09-00.02.19)

No. 2 Hanging (= 2014/16 series, no. 38)



- 3.2) *n-aka* *nenəngkwarba* *n-alyadhu-Ø=ma*
3M-that 3M.man 3M-hang-USP=MUT
‘He just hanging like you know’ [speaker translation]
(JL, JRB1-022-01, 00:02:53-00:04:00)

No. 3 Baby sleep (= 2014/2016 series, no. 3)



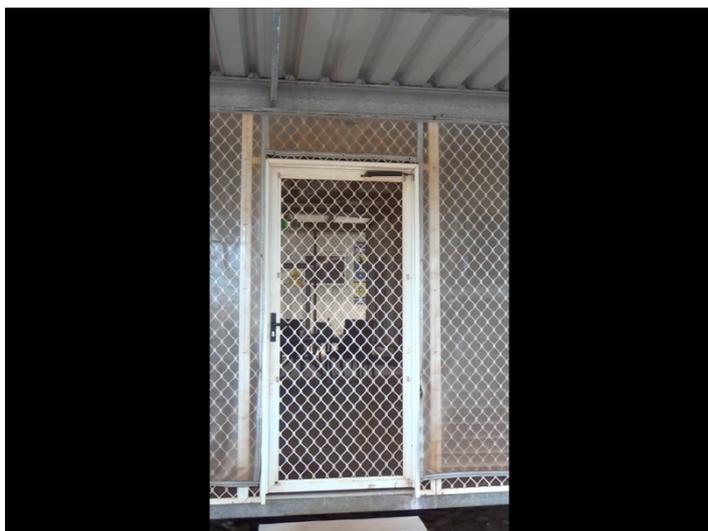
- 3.3) *wurr-akəna* *wurrangariya* *na-mkulu=ma* *marrnga*
COLL-that COLL.baby REAL.COLL-sleep.PST=MUT VEG.sleep
alyarrəngwalya

NEUT.night

‘The baby was sleeping last night’ [author translation]

(JL, JRB1-022-01, 00:07:45-00:07:50)

No. 4 Door closed



- 3.4) *akəna* *n-adhəka-jungu-na=ma* *door*
NEUT.that REAL.NEUT-close-REFL-NPST=MIUT NEUT.door
‘The door is closed’ [author translation]
(JL, JRB1-022-01, 00:09:00-00:09:03)

No. 5 Extending arms (= 2014/16 series no. 5)



- 3.5) *nakəna nenəngkwarba nu-man-dharrka-ja=ma*
 NEUT.that 3M.man REAL.3M-hand-point-NPST=MUT
 ‘The man is pointing his hands’ [author translation]
 (JL, JRB1-022-01, 00.11.54-00.12.05)

No. 6 Open door, closed door



- 3.6) *akəna door=a na-ngwudhangma-Ø akwa*
 and NEUT.door=PF REAL.NEUT-be.open-USP and
na-dhəka-jungu-nə=ma
 REAL.NEUT-be.closed-REFL-PST=MUT
 ‘The door is open/was open, and then the door was closed’ [author translation]
 (JL, JRB1-023-01, 00.01.54)

No. 7 Black then white



- 3.7) *ena* *amərrijungwa əmba angaba*
NEUT.this NEUT.black and NEUT.that.over.there
akwulyadhadha
NEUT.white
'This one black, that over there white' [author translation]
(JL, JRB1-023-01, 00.04.34)

No. 8 White then black



- 3.8) *akwulyadhadha akwa amurrijungwa*
 NEUT.white and NEUT.black
 ‘From white to black’ [speaker translation]
 (JL, JRB1-023-01, 00.05.22-00.05.36)

No. 9 Singing (no posture) (= 2014/16 series, no. 1)



- 3.9) *yarrungkwa n-aka nenangkwarba nə-mebi-nə=ma*
 yesterday 3M-this 3M.man REAL.3M-sing-PST=MUT
emeba
 NEUT.song
 ‘The man was singing yesterday’ [author translation]
 (JL, JRB1-023-01, 00.07.52)

No. 10 Coughing



- 3.10) *n-akəna* *nenəŋkwarba* *nə-mudhilyakbə-na=ma*
 3M-that 3M.man REAL.3M-cough-NPST=MUT
 ‘[That man] coughing’ [speaker translation]
 (JL, JRB1-023-01, 00.08.30-00.08.34)

No. 11 Spinning



- 3.11) *dh-akəna* *fan-a* *ying-kwu+lyake-na=ma*
 FEM-that FEM.fan REAL.FEM-go.around-NPST=MUT

‘That fan spinning around’ [author translation]
(CW, JRB1-023-01, 00.10.43)

No. 12 Drinking



- 3.12) *n-aka* *nenəŋkwarba* *nə-bekə-na=ma*
 3M-that 3M.man REAL.3M-drink-NPST=MUT
 ‘The man is drinking’ [speaker translation]
 (CW, JRB1-023-01, 00.11.40)

No. 13 Blinking



- 3.13) *yarrungkwa n-akana nenangkwarba*
 yesterday 3M-that 3M.man
numa-lyangk+wama-ja-Ø=ma
 REAL.3M>VEG-head+nod-CAUS-USP=MUT
 ‘Yesterday the man blinked’ [author translation]
 (JL, JRB1-023-01, 00.15.53)

No. 14 Kissed (=2014/16 series, no. 2)



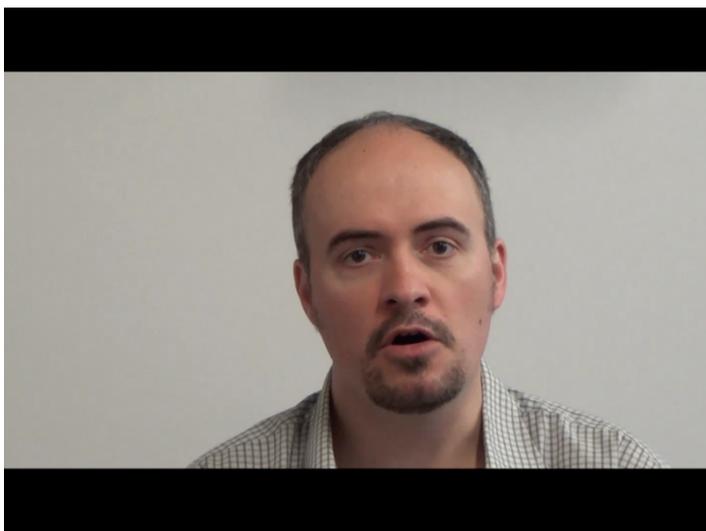
- 3.14) *n-aka nenangkwarba nenə-lhawrəngka-Ø=ma*
 3M-that 3 M.man REAL.3M>3M-kiss-PST=MUT
niyukwujiya=manja
 3M.boy=LOC
 ‘The man kissed his son’ [speaker translation]
 (JL, JRB1-023-01, 00.16.45)

No. 15 Squatting, grinding



- 3.15) *n-aka* *nenəngkwarba nəmə-ngunya-ka-Ø=ma*
3M-that 3M.man REAL.3M>NEUT-soft-FACT-USP=MUT
‘The man is softening/crushing [the things in the bowl]’ [author translation]
(JL, JRB1-023-01, 00.19.49)

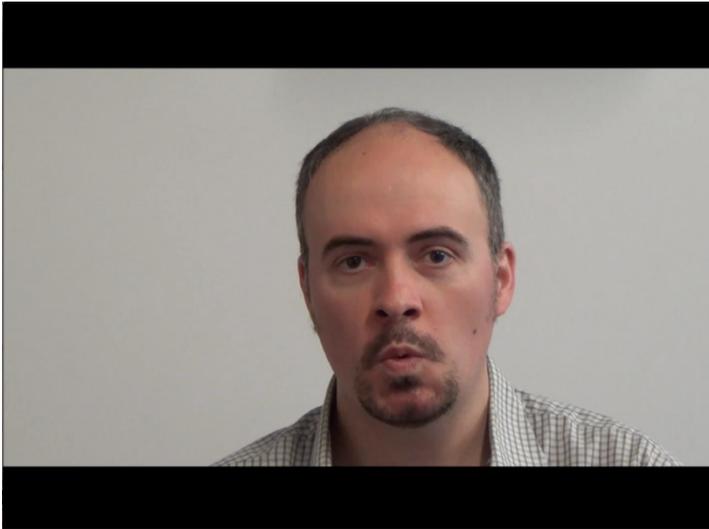
No. 16 Sing, whistle



- 3.16) *yarrungkwa n-akəna nenəngkwarba nə-mebi-nə=ma*
yesterday 3M-that 3M.man REAL.3M-sing-PST=MUT
emeba akwa nu-wirrəmika-rnə=ma

NEUT.song and REAL.3M-whistle-PST=MUT
'Yesterday the man was singing and whistling' [author translation]
(JL, JRB1-023-01, 00.23.29)

No. 17 Whistle, sing



3.17) *nu-werrimika-rnə=ma*
REAL.3M-whistle-PST=MUT
'He was whistling' [author translation]
(JL, JRB1-023-01, 00.24.58)

No. 18 Squatting on ground, scratched



No. 20 Scratched, started singing



No. 21 Squatting, scratched (ground)



No. 22 Cooked, sang



3.20) *n-aka* *nenəngkwarba* *nə-dhaka-na=ma*
 3M-this 3M.man REAL.3m>NEUT-cook-NPST=MUT
anhəŋga *akwa* *n-errikbə-na=ma* *dhilhingenə*
 NEUT.food and REAL.3M>NEUT(?)-throw-NPST=MUT FEM.salt
kərrəwəra *anhəŋg=manja* *akwa* *nə-məkm-arn* *m-akəna*
 above NEUT.food=LOC and 3M-many-this(?) VEG-that
menelamba *akwa* *nə-mebi-na* *nə-mebi-nə=ma*
 VEG.plate and REAL.3M-sing-PST REAL.3M-sing-PST=MUT
emeba
 NEUT.song

‘The man cooks the food, throws on the salt, and sings a song’ [author translation]

(JL, JRB1-023-01, 00.31.20)

No. 23 Shook, took out bread



- 3.21) *nəŋə-yeɾɾəkə-na=ma* *ena* *bread-a*
REAL.1>NEUT-shake-NPST=MUT NEUT.this NEUT.bread
‘He’s shaking the bread’ [author translation]
(JL, JRB1-023-01, 00.34.02)

No. 24 Sang, cooked (=2014/16 series, no. 4)



No. 25 Draw, scratch, sing



- 3.22) *n-aka* *nenəŋkwarba* *n-arrkərre-na-* *n-arrkərre-na=ma*
3M-that 3M.man REAL.3M-draw-NPST- REAL.3M-draw-NPST=MUT
mamudhang=manja *akwa* *n-arrangalhi-jungu-na=ma* *akwa*
VEG.sand=LOC and REAL.3M-itch-REAL-NPST=MUT and
nə-mebi-na=ma
REAL.3M-sing-NPST=MUT
‘The man draws in the sand and scratches himself and sings’ [author
translation]
(JL, JRB1-023-01, 00.34.37)

No. 26 Turned wheel, looked out



- 3.23) *n-akəna* *ni-yukwujjya* *nəmə-ruk+wulyaka-ja-Ø=ma* *akwa*
3M-that 3M-small REAL.3M>VEG-spin-CAUS-USP=MUT and
n-andhey=ma
REAL.3M-look.PST=MUT
‘Little boy was turning [the wheel]’ [speaker translation]
(JL, JRB1-023-01, 00.36.30)

No. 27 Turning looking



- 3.24) *nemə-ruk+wulyakajə-na=ma* *mijiyanga* *əmba n-aka*
 REAL.3M>VEG-spin-CAUS-NPST=MUT VEG.boat and 3M-this
nenəngkwarba nu-wilyaka-na=ma binoculars
 3M.man REAL.3M>NEUT-hold-NPST=MUT NEUT.binoculars
en=ang=manja ayarrka akəna n-andhiya=ma
 3M.PRO=POSS=LOC NEUT.hand NEUT.that REAL.3M-look.NPST=MUT
eyungkwa
 far.away
 ‘[The man’s spinning the steering wheel of the boat, and] ‘he [the boy]’s
 holding a binoculars in his hand, and now he's looking through that’ [speaker
 translation]
 (JL, JRB1-024-01, 00.04.08)

No. 28 Slide grinding



- 3.25) *yarrungkwa n-akəna nenəngkwarba nəmə-wilyaka-Ø=ma*
 yesterday 3M-that 3M.man REAL.3M>VEG -hold-PST=MUT
menelamba en=lang=manja ayarrka akwa n-akəna
 VEG.bowl 3M.PRO=POSS=LOC NEUT.hand and 3M-that
nə-lyikerr+burrkwu-nə=ma slippery.slide=langwiya
 REAL.3M-downwards?+disappear-PST=MUT slippery.slide=PERL
 ‘Yesterday the man was holding the bowl in his hand and sliding down the

slippery slide' [speaker translation]
(JL, JRB1-024-01, 00.12.13)

No. 29 Scratching, sing, whistle



- 3.26) *yarrungkwa n-aka nenangkwarba nu-kurrudha-ngə=ma*
yesterday 3M-that 3M.man REAL.3M-scratch-PST=MUT
ena=lhangwa arangka akwa nə-mebi-nə=ma
3M.PRO=POSS NEUT.head and REAL.3M-sing-PST=MUT
emeba akwa nu-wirrmika-rnə=ma
NEUT.song and REAL.3M-whistle-PST=MUT
'Yesterday the man was scratching his head, singing and whistling' [author
translation]
(JL, JRB1-024-01, 00.15.20)

No. 30 Started running



- 3.27) *n-angkarrə-nə=m* *yeyiya*
 REAL.3M-run-PST=MUT MASC.footstep
 ‘The man was running’
 (JL, JRB1-024-01, 00.18.26)

No. 31 Running



- 3.28) *n-angkarrə-nə=ma*
 REAL.3M-run-PST=MUT

‘He was running’ [speaker translation]
(JL, JRB1-024-01, 00.20.07)

No. 32 Cutting branch



- 3.29) *yarrungkwa n-akəna nenəngkwarba*
yesterday 3M-that 3M.man
nu-kw+arrangu-Ø=ma *amamərrera ayika*
REAL.3M>NEUT-half(?)+cut-USP=MUT NEUT.branch NEUT.tree
‘That man was cutting the branch of a tree’ [speaker translation]
(JL, JRB1-024-01, 00.23.12)

No. 33 Cut branch



- 3.30) *yarrungkwa n-akəna nenəngkwarba nu-wilyaka-Ø=ma*
yesterday 3M-that 3M.man REAL.3M>NEUT-hold-PST=MUT
a-kə-ngkarrnga en=lhang=manja ayarrka akəna
NEUT-NSR-cut 3M.PRO=POSS=LOC NEUT.hand NEUT.that
a-k-ingkarrnga akwa nu-kw+arrangu-Ø=ma
NEUT-NSR-cut and REAL.3M>NEUT-half+cut-PST=MUT
amamərarra
NEUT.branch
‘Yesterday the man held the shears in his hand and cut the branch’ [author translation]
(JL, JRB1-029-01, 00.02.40)

No. 34 Breaking stick imperfective



- 3.31) *yarrungkwa n-akəna nenəngkwarba*
 yesterday 3M-that 3M.man
nu-kw+arrangu-Ø=ma amamərarra ayika
 REAL.3M>NEUT-half+cut-USP=MUT NEUT.branch NEUT.tree
en=lhang=uma alhəka
 3M.PRO=POSS=INST NEUT.foot
 ‘Yesterday the man was breaking the branch with his foot’ [author
 translation]
 (JL, JRB1-029-01, 00.04.18)

No. 35 Broke stick (= 2014/16 Series, no. 19)



- 3.32) *yarrungkwa n-aka nenangkwarba*
 yesterday 3M-that 3M.man
nu-kw-arrangu-Ø=ma akəna amamərarra ayika
 REAL.3M>NEUT-half-cut-USP=MUT NEUT.that NEUT.branch NEUT.tree
en=lhang=uma alhəka
 3M.PRO=POSS=INST NEUT.foot
 ‘Yesterday the man broke the branch with his foot’ [author translation]
 (JL, JRB1-029-01, 00.07.11)

No. 36 Receiving



- 3.33) *yarrungkwa nu-wilyaba nenangkwarba nenu-kwa-Ø=ma*
 yesterday 3M-one 3M.man REAL.3M>3M-give-PST=MUT
n-akənu=wa nenangkwarba
 3M-that=ALL 3M.man
 ‘One man gave the eye- reading glass to the other man’ [speaker translation]
 (JL, JRB1-029-01, 00.13.50-00.14.12)

No. 37 Received



- 3.34) *n-embəri-n* *n-akəna* *nenəngkwarba nenə-kə-mi=yedha*
REAL.3M-wait-PST 3M-that 3M.man 3M-NSR-get=PURP
‘He was waiting to get [the thing] from the [other] man’ [author translation]
(JL, JRB1-029-01, 00.15.52)

No. 38 Was piercing



- 3.35) *yarrungkwa* *n-aka* *nenəngkwarba nə-lyinga-Ø=ma*
yesterday 3M-that 3M.man REAL.3M>NEUT-hold-PST=MUT
akəna *lyelyinga* *en-lhang=manja* *ayarrka*

NEUT.that NEUT.knife 3M.PRO=POSS=LOC NEUT.hand
akwa nu-wərumbi-ja-Ø=ma *akəna* *lyelyinga*
and REAL.3M>NEUT-cover-CAUS-USP=MUT NEUT.that NEUT.knife
jurra=ma
NEUT.paper=INST
‘Yesterday the man was holding the knife in his hand and covered it with
paper’ [author translation]
(JL, JRB1-029-03, 00.05.38-00.06.07)

No. 39 Pierced (= 2014/16 Series, no. 6)



3.36) *n-aka* *nenəngkwarba nu-wilyaka-Ø=ma*
3M-that 3M.man REAL.3M>NEUT-hold-PST=MUT
lyelyinga *akwa n-adhər-ra-Ø* *jurru=manja*
NEUT.knife and REAL.3M>NEUT-spear-USP NEUT.paper=LOC
‘The man was holding the knife, and [he] speared the paper’ [author
translation]
(JL, JRB1-029-03, 00.08.53)

No. 40 Throwing stone imperfective



- 3.37) *n-aka* *nenəŋkwarba nəmə-wilyaka-Ø=ma* *malharra*
3M.that 3M.man REAL.3M>VEG-hold-PST=MUT VEG.rock
ayarrk=manja *akwa n-errikba-Ø*
NEUT.hand=LOC and REAL.3M-throw-USP
n-errikbu-Ø=ma
REAL.3M>VEG(?)-throw-PST=MUT
(JL, JRB1-029-03, 00.10.43)

No. 41 Threw stone (= 2014/16 Series, no. 9)



- 3.38) *n-erribu-Ø=ma* *malharra*
 REAL.3M>VEG(?)-throw-PST=MUT VEG.rock
 (ST, JRB1-029-03, 00.12.09)

No. 42 Cutting bread



- 3.39) *n-aka* *nenəngkwarba nə-rungadha-ng* *akəna*
 3M-that 3M.man REAL.3M>NEUT-cut.up-PST NEUT.that
bread=a
 NEUT.bread=PF
 ‘The man cut up the bread’ [author translation]
 (CW, JRB1-029-03, 00.13.04)

No. 43 Cut bread (= 2014/16 Series, no. 16)



No. 44 Peeling potato



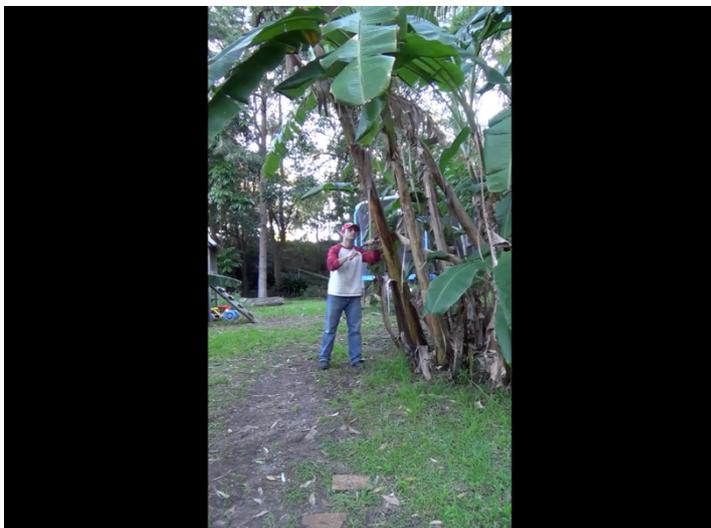
- 3.40) *n-akəna* *nenəngkwarba ma-ralandha-ngə=ma*
3M.that 3M.man REAL.(3M)>VEG(?)-cut.up-PST=MUT
budida *mamagulya*
VEG.potato VEG.skin
‘The man cut up the potato skin’ [author translation]
(ST, JRB1-029-03, 00.15.39)

No. 45 Peeled potato



- 3.41) *m-akəna* *n-akən* *nenəngkwarba*
VEG-that 3M-that 3M.man
mi-rəngadha-ngə=m *m-akən* *budida* *akwa*
REAL.(3M)>VEG(?)>cut.up-PST=MUT VEG-that VEG.potato and
nəmə-jərrək-Ø=dha
REAL.3M>VEG-finish-PST=TRM
‘[The man] finished peeling [the potato]’ [speaker translation]
(ST, JRB1-029-03, 00.16.55)

No. 46 Cutting tree down saw



- 3.42) *ma-rangandha-ngə=ma* *mama* *ayika*
 REAL.(3M)>VEG(?)-cut.up-PST=MUT VEG.trunk NEUT.tree
banana=lhanga
 NEUT.banana=POSS
 ‘The man was cutting down the banana tree’ [author translation]
 (ST, JRB1-029-03, 00.20.07)

No. 47 Cut tree down (saw) (= 2014/16 Series, no. 23)



- 3.43) *n-aka* *nənəngkwarba ma-rəngadha-ngə=ma*
 3M-that 3M.man REAL.(3M)>VEG(?)-cut.up-PST=MUT
banana=lhangwa *mama* *ayika* *akwa*
 NEUT.banana=POSS VEG.trunk NEUT.tree and
nəmi-ngkə-lharrə-Ø-m=dha
 REAL.3M>NEUT-??-fall-USP=MUT=TRM
 (ST, JRB1-029-03, 00.20.42)

No. 48 Sleeping woke up (= 2014/16 Series, no. 31)



- 3.44) *n-aka* *nenəngkwarba nə-rrak-ajey=mə=na*
 3M.that 3M.man REAL.3M-??-be.upright.PST=MUT=TAG
ni-jungu-nə=ma *marrnga* *chair=manja* *akena*
 REAL.3M-be.tired-PST=MUT VEG.sleep NEUT.chair=LOC but
nu-wilyaba *nenəngkwarba nenu-məra+janga-ja-Ø=ma*
 3M-one 3M.man REAL.3M>3M-wake.up-CAUS-USP=MUT
 ‘The man was sleeping in the chair, but the other man woke him up’ [author
 translation]
 (JL, JRB1-029-03, 00.24.50-00.25.13)

No. 49 Lying grinding jumped



- 3.45) *n-akəna* *nenəngkwarba nə-murrkwulhu=ma*
3M-that 3M.man REAL.3M-lie.down.PST=MUT
‘The man was lying down’
(JL, JRB1-029-03, 00.26.57)

No. 50 Cutting wood gave



- 3.46) *n-aka* *nenəngkwarba* *ni-lyinga-Ø=ma*
3M-that 3M.man REAL.3M>NEUT-hold-PST=MUT
saw=a *kajungwa* *kənə-kw+arre-ni=yedha*

NEUT.saw=PF so.that IRR.3M>NEUT-half+break-PST=PURP

ayika

NEUT.tree

‘The man was holding the saw, in order to cut the tree’ [author translation]

(CW, JRB1-032-01, 00.08.27)

No. 51 Sat, drank, put down



3.47) *n-aka nenəngkwarba nə-mak+ajey=ma*

3M-that 3M.man REAL.3M-place(?)+stand.PST=MUT

banga=manja akwa nə-bekə-nə=ma akungwa

NEUT.bed=LOC and REAL.3M-drink-PST=MUT NEUT.water

‘He was sitting on the bed, drinking the water’ [speaker translation]

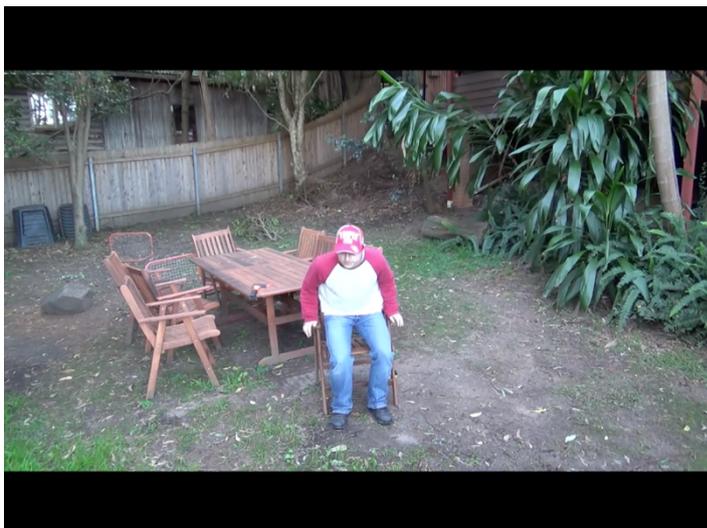
(CW, JRB1-032-01, 00.11.47)

No. 52 Sit down, sneezes, stands up (= 2014/16 Series, no. 7)



- 3.48) *n-akəna* *nenəngkwarba nə-mak-ajey=ma*
3M-that 3M.man REAL.3M-place(?)+be.upright.PST=MUT
chair-manja akwa nə-mədhilyakbə-nə=ma
NEUT.chair=LOC and REAL.3M-cough-PST=MUT
‘He was sitting on the chair and coughing’
(CW, JRB1-032-01, 00.13.11)

No. 53 Walking, sat



- 3.49) *n-aka* *nenəŋkwarba nə-lhəke-nə=ma* *chair=uwa*
 3M-that 3M.man REAL.3M-go-PST=MUT NEUT.chair=ALL
nenəŋkwarba *nə-lhəke-nə=ma* *akwa*
 3M.man REAL.3M-go-PST=MUT and
n-ambarr-nga-Ø=ma *chair=manja*
 REAL.3M-sit-CofS-USP=MUT NEUT.chair=LOC
 ‘He was sitted, he was sat down on the chair’ [speaker translation]
 ‘He went to the chair, and sat down’ [author translation]
 (CW, JRB1-032-01, 00.16.37)

No. 54 Lying, eating, jump

- 3.50) *yarrungkwa nu-wilyaba nenəŋkwarba nə-murrkulhə=ma*
 yesterday 3M-one 3M.man REAL.3M-lie.down.PST=MUT
eni=lhang=ma *murrkwa* *akwa* *nə-rukwi+lyakaja-Ø=ma*
 3M.PRO=POSS=INST VEG.stomach and REAL.3M-stir-USP=MUT
anhəŋga
 NEUT.food
 ‘Yesterday the man was lying down on his stomach and stirring the food’
 [author translation]
 (CW, JRB1-032-01, 00.21.23)

No. 55 Hanging up washing (interruption) (= 2014/16 Series, no. 13)



- 3.51) *en-eja nu-wilyaba nenəngkwarba nengə-kwa-Ø=ma*
 3M.PRO-CofR 3M-one 3M.man REAL.3M>3F-give-PST=MUT
ayika dh-akenu=wa dhədharrəngka
 NEUT.tree 3F-that=ALL 3F.woman
 ‘The man gave the stick to the woman’
 (CW, JRB1-032-01, 00.27.28-00.27.42)

No. 56 Sitting, grinding, gave



- 3.52) *yarrungkwa n-akəna nenəngkwarba nu-rukwi+lyakaja-Ø=ma*
 yesterday 3M-that 3M.man REAL.3M>NEUT-stir-USP=MUT
anhəngə ene-ja nu-wilyaba nenəngkwarba
 NEUT.food 3M.PRO-CofR 3M-one 3M.man
nenu-kwa-Ø=ma ayika akwa
 REAL.3M>3M-give-PST=MUT NEUT.tree and
nu-rukwi+lyakaja-Ø=ma
 REAL.3M>NEUT-stir-USP=MUT
 ‘The man was stirring the food, the other man give him a stick, and he kept
 stirring the food’
 (CW, JRB1-032-01, 00.29.45)

No. 57 Stood up, jumped, sat down (= 2014/16 Series, no. 15)



3.53) *yarrungkwa n-aka nenangkwarba nə-lhəke-na akwa*
yesterday 3M-that 3M.man REAL.3M-go-PST and
na-mak+ajey=ma chair=manja akwa
REAL.3M-place+be.upright.PST=MUT chair=LOC and
na-rama-jungwa-Ø akwa nu-kwa+bijangu-nə=ma
REAL.3M-get.up-REFL-USP and REAL.3M-jump-PST=MUT
(CW, JRB1-032-01, 00.33.22)

No. 58 Was jumping, ran by



- 3.54) *yarrungkwa n-akana nenangkwarba n-ərribərriba*
 yesterday 3M-that 3M.man 3M-keep.on
nə-kwə+bijangu-nə=ma ene-ja nu-wilyaba nenangkwarba
 REAL.3M-jump-PST=MUT 3M.PRO.CofR 3M-one 3M.man
n-angkarrə-nə=ma enuwa=lhangwa
 REAL.3M-run- PST=MUT 3M.PRO=ABL
 ‘He was running’ [speaker translation]
 ‘The man kept on jumping, [and] the other man ran past’ [author translation]
 (CW, JRB1-032-01, 00.36.26)

No. 59 Stood up, knocked, sat down



- 3.55) *nə-knock-əm-dha-ng=ma door=manja*
 REAL.3M>NEUT-knock-TRSVR-BLI-PST=MUT NEUT.door=LOC
 ‘He was knocking at the door’ [speaker translation]
 (CW, JRB1-032-01, 00.41.02)

No. 60 Was knocking, ran by (= 2014/16 Series, no. 14)



3.56) *yarrungkwa n-akəna nenəngkwarba n-ərribərriiba*
 yesterday 3M-that 3M.man 3M-keep.on
nə-knock-əm-dha-ngə=ma door=manja
 REAL.3M>NEUT-knock-TRSVR-BLI-PST=MUT NEUT.door=LOC
ene-ja nu-wilyaba nenəngkwarba n-angkarrə-nə=ma
 3M.PRO-CofR 3M-one 3M.man REAL.3M-run-PST=MUT
enuwa=lhangwa
 3M.PRO=ABL

‘Yesterday the man kept on knocking on the door [and] the other man ran past him’ [author translation]

(CW, JRB1-032-01, 00.45.49)

G.2 EDED video stimuli: 2016 series

No. 1 Singing (= 2013 Series, no. 9)



- 3.1) *yarrungkwa* *nə-mebi-nə=ma* *n-akəna* *nenəngkwarba*
yesterday REAL.3M-sing-PST=MUT 3M-that 3M.man
'Yesterday the man was singing' [author translation]
(ST, JRB1-037-01, 00:02:26-00:02:29)

No. 2 Kissed (= 2013 Series, no. 14)



- 3.2) *n-aka* *nenəŋkwarba* *nənə-lhəwrəŋka-Ø=ma*
 3M-that 3M.man REAL.3M>3M-kiss-PST=MUT
ni-yukwujija=manja
 3M-small=LOC
 ‘The man kissed the child’ [author translation]
 (CW, JRB1-037-01, 00:03:25-00:03:35)

No. 3 Baby sleeping (= 2013 Series, no. 3)



- 3.3) *yarrungwa* *wurr-akəna* *wurr-əkʷujija*
 yesterday COLL-that COLL-small
na-mungkwulhu=m *marrnga* *pram=manja*
 REAL.COLL-sleep.PST=MUT VEG.sleep NEUT.pram=LOC
 ‘Yesterday the baby was sleeping in the pram’ [author translation]
 (CW, JRB1-037-01, 00:10:26-00:10:33)

No. 4 Sang, cooked (= 2013 Series, no. 24)



No. 5 Extending arms (= 2013 Series, no. 5)



- 3.4) *n-akəna* *nenəŋkwarba* *ni-ŋbədħərrəkə-na=ma*
 3M-that 3M.man REAL.3M-stretch.out(?)-NPST=MUT
 en-anga *aməndha* *akwa ayarrka*
 3M.PRO=POSS(?) NEUT.shoulder and NEUT.hand
 (ST, JRB1-037-01, 00:16:35-00:16:43)

No. 6 Pierced (= 2013 Series, no. 39)



- 3.5) *n-adhər̄ra-Ø=m* *akən* *jurra* *n-akən*
REAL.3M>NEUT-pierce-USP=MUT NEUT.that NEUT.paper 3M-that
nenəŋkwarba
3M.man
‘The man pierced the bag’ [author translation]
(ST, JRB1-037-01, 00:22:31-00:22:35)

No. 7 Sit down, sneezes, stands up (= 2013 Series, no. 52)



- 3.6) *n-akən* *nenəngkwarba* *nə-lhəka-Ø=ma*
 3M-that 3M.man REAL.3M-go- USP=MUT
n-ambarr-nga-Ø=ma *akən=manja* *chair=a* *akwa*
 REAL.3M-sit-Cofs-USP=MUT NEUT.that=LOC chair=PF and
nu-mədhilyakbə-Ø=ma *akwa kamba*
 REAL.3M-cough-USP=MUT and then
nu-kw-aji-nga-Ø=ma *kənə-lhəke-nə=ma*
 REAL.3M-half(?)=be.upright Cofs-USP=MUT IRR.3M-go-PST=MUT
 ‘He stood up and walked away’ [speaker translation]
 (ST, JRB1-037-01, 00:31:11-00:31:21)

No. 8 Crouch, stand (iterated)



- 3.7) *n-aka* *nenəngkwarba* *akw-ababərn=lhanga*
 3M-that 3M.man time-many=ABL
n-ajiya=ma *akwa n-ebulwe-na=ma*
 REAL.3M-be.upright.NPST=MUT and REAL.3M-squat(?)=NPST=MUT
n-enəng-engkwara
 3M-M.ALP-one.day
 ‘The man is always standing up and squatting down, all day long’ [author translation; in response to ‘if he did that for a very long time’]
 (CW, JRB1-037-01, 00:37:59-00:38:16)

No. 9 Threw stone (= 2013 Series, no. 41)



- 3.8) *n-akəna* *nenəŋkwarba ma-lyinga-Ø* *m-akən*
 3M-that 3M.man REAL.(3M)>VEG-hold-PST VEG-that
malharra *kembirra* *n-errikbu-Ø=ma*
 VEG.stone then REAL.3M>NEUT(?)-throw-USP=MUT
 ‘The man was holding the stone, then [he] threw [it]’ [author translation]
 (ST, JRB1-037-01, 00:42:52-00:43:01)

No. 10 Lift crate (frustrative)



- 3.9) *yarrungwa* *n-aka* *nenəŋkwarba nakinikejik* *akəna*
 yesterday 3M-that 3M.man ?? NEUT.that
badhanəŋgamərɾa *məna* *əŋkabərrəŋərrung=baba*

- 3.11) *n-aka* *nenəŋkwarba* *n-ərribərriba*
 3M-that 3M.man REAL.3M-keep.on
nu-ngwurrubalhi-ja-Ø=m *akən* *door-a*
 REAL.3M>NEUT-open-CAUS-USP=MUT NEUT.that NEUT.door=PF
akena nə-kamadhə-nə=ma
 then REAL.3M-feel.upset-PST=MUT
 ‘The man kept on opening the door and felt sad [about it]’ [author translation;
 in response to ‘if he actually did that all day long, how would you say it?’]
 (ST, JRB1-037-02, 00:11:48-00:12:02)

No. 13 Hanging up washing (interruption) (= 2013 Series, no. 55)



- 3.12) *arab-ərabəwiya* *dh-akəna* *dhədharrəŋka*
 REDUP-long.ago 3F-that 3F.woman
yingə-nə-marrakaja-Ø=ma *n-akə* *nenəŋkwarba akən*
 REAL.3F>3M-grab-USP=MUT 3M-that 3M.man NEUT.that
ayika
 NEUT.tree
 ‘Long time ago, the woman grabbed the stick [from] the man’ [author
 translation; in response to ‘and if he used to do that a long time ago, whenever
 her husband walked past her she would snatch that stick from him’]
 (ST, JRB1-037-02, 00:16:30-00:16:43)

No. 14 Was knocking, ran by (= 2013 Series, no. 60)



- 3.13) *n-aka* *nenəŋkwarba* *n-adhakba-jangu-Ø=m*
 3M-this 3M.man REAL.3M-knock(?)-REFL-USP=MUT
door=man *ngəwa* *n-ərribərrib=dha*
 NEUT.door=LOC continue 3M-keep.on=TRM
 ‘The man kept on knocking on the door’ [author translation]
 (ST, JRB1-037-02, 00:18:25-00:18:32)

No. 15 Stood up, jumped, sat down (= 2013 Series, no. 57)



- 3.14) *n-aka* *nenəngkwarba nu-kw+aji-nga-Ø=ma*
 3M-that 3M.man REAL.3M-stand-CofS-USP=MUT
nə-lhak+bijangə-nə=ma *n-ərribərrib* *ngəw*
 REAL.3M-jump-PST=MUT 3M-keep.on continue
nə-lhak+bija-nə=m *kamba n-ambarrə-nga-Ø=ma*
 REAL.3M-jump-PST=MUT then REAL.3M-sit-CofS-USP=MUT
 ‘The man stood up, kept on jumping, then sat down’ [author translation]
 (ST, JRB1-037-02, 00:20:44-00:20:52)

No. 16 Cut bread (= 2013 Series, no. 43)



- 3.15) *adhuwaba* *dh-akəna* *dhədharrəngka*
 today 3F-that 3F.woman
yingu-rəngandha-ngə=ma *akəna* *bread*
 REAL.3F>NEUT-cut.up-PST=MUT NEUT.that NEUT.bread
 ‘The woman cut up/was cutting up the bread today’ [author translation]
 (JL, JRB1-038-01, 00:03:17-00:03:27)

No. 17 Push fridge (frustrative, succeed)



- 3.16) *arabə+wiya* *n-akəna* *nenəngkwarba*
 COMPL.ACT+TEMP 3M-that 3M.man
ni-jura-ngə=ma *akwa*
 REAL.3M>NEUT-push-PST=MUT and
ni-njurrkwa-ja-Ø=ma *akəna* *fridge*
 REAL.3M>NEUT-move-CAUS-Ø=MUT NEUT.that NEUT.fridge
 ‘The man pushed and moved the fridge a long time ago’ [author translation]
 (JL, JRB1-038-01, 00:09:22-00:09:32)

No. 18 Push fridge (frustrative)



- 3.17) *n-akəna* *nenəngkwarba ni-jura-ngə=ma* *akwa*
 3M-that 3M.man REAL.3M>NEUT-push-PST=MUT and
nu-njurr-kwa-ja-Ø=ma *akəna-* *akəna*

REAL.3M>NEUT-move-CAUS-Ø=MUT NEUT.that- NEUT.that

fridge=a akena nara=dha

NEUT.fridge=PF but NEG=TRM

‘The man was pushing and moving the fridge, but nothing [i.e. he didn’t]’

[author translation]

(JL, JRB1-038-01, 00:12:39-00:13:00)

No. 19 Broke stick (= 2013 Series, no. 35)



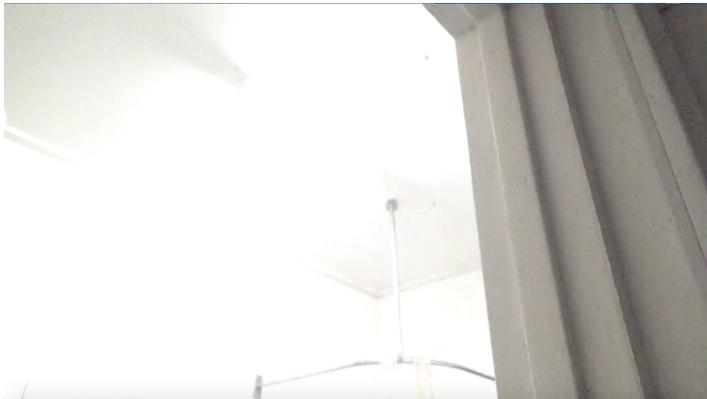
No. 20 Rake sweep



No. 21 Sneezing



No. 22 Switch on



No. 23 Cut tree down (saw)



No. 24 Sawing wood, put hat on



No. 25 Whistled, sang, whistled, sang, whistled



No. 26 Poke (several times)



No. 27 Coughing, received ball



No. 28 Switch light on



No. 29 Looking, ate biscuit



No. 30 Crushing leaves, put hat on



No. 31 Walked, sat down, slept, woke up (= 2013 Series, no. 48)



No. 32 Nodding



No. 33 Switched on and off (several times)



No. 34 Kept dropping stone



No. 35 Chewing



No. 36 Dragging chair, put hat



No. 37 Nodded (several times)



No. 38 Hanging (= 2013 Series, no. 2)



No. 39 Poke (once)



No. 40 Pull (inchoative)



No. 41 Eat biscuit



No. 42 Pushed chair over



No. 43 Pulling rope



No. 44 Digging



No. 45 Dug a hole



Appendix H

Questionnaires

This appendix lists two questionnaires that were used in the early stages of data collection for this project. These questionnaires were created in collaboration between the author and Patrick Caudal. As discussed in §1.3.4, given the morphological complexity of the verb in Anindilyakwa, various questionnaires were used in order to collect sufficient data that covers different possible TAM categories in the language.

Participants were asked to translate key English sentences or short scenarios (listed below in the questionnaires) into Anindilyakwa. These sentences were presented to participants after providing contextual information about the situation (in order to avoid any ambiguities).

Anindilyakwa translations/responses were checked, and back-translated by speakers, in order to verify that the translations that were collected corresponded with the TAM properties that were being examined.

Data collected from these two questionnaires were complemented by further follow-up questionnaires and testing of judgements about truth and felicity conditions, semi-elicited data collection methods (using video and picture stimuli; see, for example, Appendix G), and free narrative and conversational material (see, for example, Appendix I).

H.1 Tense/aspect questionnaire

H.1.1 Past

H.1.1.1 Telic

Non-atomic (Accomplishments)

- H.1) The man cut down the tree/ The man was cutting down the tree/ The man used to cut down the tree
- H.2) The man cut the log/ The man was cutting the log/ The man used to cut the log
- H.3) The child pounded the ant/ The child was pounding the ant/ The child used to pound the ant
- H.4) The man skinned the wallaby/ The man was skinning the wallaby/ The man used to skin the wallaby
- H.5) The man roasted the wallaby (meat) in the hot ashes/ The man was roasting the wallaby (meat) in the hot ashes/ The man used to roast the wallaby (meat) in the hot ashes
- H.6) The woman roasted the damper/ The woman was roasting the damper/ The woman used to roast the damper in the hot ashes
- H.7) The man ate the wallaby (meat)/ The man was eating the wallaby (meat)/ The man used to eat the wallaby meat
- H.8) The man made a bush shelter/ The man was making a bush shelter/ The man used to make a bush shelter
- H.9) The man made the spear blunt/ The man was making the spear blunt/ The man used to make the spear blunt
- H.10) The woman dug a hole/ The woman was digging a hole/ The woman used to dig a hole
- H.11) The man coiled up the rope/ The man was coiling up the rope/ The man used to coil up the rope

Atomic (Achievements)

- H.12) The man died/ The man was dying
- H.13) The man came out from the plane/ The man was coming out from the plane/ The man used to come out from the plane
- H.14) The man left/ The man was leaving/ The man used to leave
- H.15) The man found the beach/ The man was finding the beach/ The man used to find the beach
- H.16) The man arrived in Numbulwar/ The man was arriving in Numbulwar/ The man used to arrive in Numbulwar
- H.17) The man arrived in Numbulwar/ The man was arriving in Numbulwar/ The man used to arrive in Numbulwar
- H.18) The man returned/ The man was returning/ The man used to return
- H.19) The car stopped/ The car was stopping/ The car used to stop
- H.20) The man speared the fish/pierced the skin of the fish/ The man was spearing the fish/was piercing the skin of the fish/ The man was used to spear the fish/used to pierce the skin of the fish
- H.21) The man cut the twig off the tree/ The man was cutting the twig off the tree/ The man used to cut the twig off the tree
- H.22) The boy killed the ant/ The boy was killing the ant
- H.23) The boy passed the line/ The boy was passing the line/ The boy used to pass the line
- H.24) The boy put the cup down/ The boy was putting the cup down/ The boy used to put the cup down
- H.25) The boat sank/ The boat was sinking/ The boat used to sink

H.1.1.2 Atelic

States

- H.26) The man sat/ The man was sitting/ The man used to sit
- H.27) The woman stood/ The woman was standing/ The woman used to stand
- H.28) The man lay down/ The man was lying/ The man used to lie
- H.29) The woman was happy/ The woman was being happy/ The woman used to be happy
- H.30) The man was frightened/ The man was being frightened/ The man used to be frightened
- H.31) The woman was hungry/ The woman was being hungry/ The woman used to be hungry
- H.32) The man liked his food/ The man was liking his food/ The man used to like his food
- H.33) The child was sick/ The child was being sick/ The child used to be sick
- H.34) The dog was dirty/ The dog was being dirty/ The dog used to be dirty
- H.35) The grass was long/ The grass was being long/ The grass used to be long
- H.36) The meat was rotten/ The meat was being rotten/ The meat used to be rotten

Activities

- H.37) The man ran/ The man was running/ The man used to run
- H.38) The man walked/ The man was walking/ The man used to walk
- H.39) The bird flew/ The bird was flying/ The bird used to fly
- H.40) The dugong swam/ The dugong was swimming/ The dugong used to swim
- H.41) The child played/ The child was playing/ The child used to play
- H.42) The child listened/ The child was listening/ The child used to listen
- H.43) The child talked/ The child was talking/ The child used to talk

- H.44) The child watched the fighting/ The child was watching the fighting/ The child used to watch the fighting
- H.45) The two kids quarreled/ The two kids were quarrelling/ The two kids used to quarrel
- H.46) The man hunted wallaby/ The man was hunting wallaby/ The man used to hunt wallaby
- H.47) The woman danced/ The woman was dancing/ The woman used to dance
- H.48) The man sang/ The man was singing/ The man used to sing
- H.49) The ball rolled/ The ball was rolling/ The ball used to roll
- H.50) The wheel turned/ The wheel was turning/ The wheel used to turn
- H.51) The boy collected firewood/ The boy was collecting firewood/ The boy used to collect firewood
- H.52) The girl waited for them/ The girl was waiting for them/ The girl used to wait for them
- H.53) The woman looked for them/ The woman was looking for them/ The woman used to look for them

Semelfactives

- H.54) The boy was kicking the tree for fruit
- H.55) The girl was hitting the ground with a stick
- H.56) The boy was poking the girl
- H.57) The girl was sneezing
- H.58) The boy was coughing
- H.59) The girl was blinking
- H.60) The boy was hiccupping
- H.61) The girl was knocking on the door
- H.62) The boy was shaking the tree for food

H.63) The girl was nodding in agreement

H.64) The ball was bouncing

H.1.2 Present

H.1.2.1 Telic

Non-atomic (Accomplishments)

H.65) The man cuts down the tree/ The man is cutting down the tree

H.66) The man cuts the log/ The man is cutting the log

H.67) The child pounds the ant/ The child is pounding the ant

H.68) The man skins the wallaby/ The man is skinning the wallaby

H.69) The man cooks the wallaby (meat)/ The man is cooking the wallaby (meat)

H.70) The man eats the wallaby (meat)/ The man is eating the wallaby (meat)

H.71) The fire burns the house/ The fire is burning the house

H.72) The man builds a house/ The man is building a house

H.73) The man makes a canoe/ The man is making a canoe

H.74) The man paints the spear/ The man is painting the spear

H.75) The woman digs a hole/ The woman is digging a hole

H.76) The man measures the canoe/ The man is measuring the canoe

H.77) The man coils up the rope/ The man is coiling up the rope

Atomic (Achievements)

H.78) The man dies/ The man is dying

H.79) The woman leaves/ The woman is leaving

H.80) The man arrives/ The man is arriving

H.81) The woman returns/ The woman is returning

H.82) The man stops/ The man is stopping

H.83) The man spears the fish/pierces the skin of the fish/ The man is spearing the fish/piercing the skin of the fish

H.84) The man kills the ant/ The man is killing the ant

H.85) The girl crosses the line/ The girl is crossing the line

H.86) The boy throws a stone/ The boy is throwing a stone

H.87) The girl reaches the beach / The girl is reaching the beach

H.1.2.2 Atelic

States

H.88) The girl sits/ The girl is sitting

H.89) The man stands/ The man is standing

H.90) The boy lies down/ The boy is lying

H.91) The woman is happy/ The woman is being happy

H.92) The boy is frightened/ The boy is being frightened

H.93) The girl is hungry/ The girl is being hungry

H.94) The child likes their food/ The child is liking their food

H.95) The child is sick/ The child is being sick

H.96) The dog is dirty/ The dog is being dirty

H.97) The grass is long/ The grass is being long

H.98) The meat is rotten/ The meat is being rotten

Activities

H.99) The man runs/ The man is running

H.100) The woman walks/ The woman is walking

H.101) The bird flies/ The bird is flying

H.102) The dugong swims/ The dugong is swimming

- H.103) The child plays/ The child is playing
- H.104) The child listens/ The child is listening
- H.105) The child talks/ The child is talking
- H.106) The child watches the fighting/ The child is watching the fighting
- H.107) The two kids quarrel/ The two kids are quarrelling
- H.108) The man hunts wallaby/ The man is hunting wallaby
- H.109) The woman dances/ The woman is dancing
- H.110) The man sings/ The man is singing
- H.111) The ball rolls/ The ball is rolling
- H.112) The wheel turns/ The wheel is turning
- H.113) The fire burns/ The fire is burning
- H.114) The man gathers the people together/ The man is gathering the people together
- H.115) The boy collects firewood/ The boy is collecting firewood
- H.116) The girl waits for them/ The girl is waiting for them
- H.117) The woman looks for them/ The woman is looking for them

Semelfactives

- H.118) The boy kicks the tree for fruit/ The boy is kicking the tree for fruit
- H.119) The girl hits the ground with a stick/ The girl is hitting the ground with a stick
- H.120) The boy pokes the girl/ The boy is poking the girl
- H.121) The girl sneezes/ The girl is sneezing
- H.122) The boy coughs/ The boy is coughing
- H.123) The girl blinks/ The girl is blinking
- H.124) The boy hiccoughs/ The boy is hiccoughing
- H.125) The girl knocks on the door/ The girl is knocking on the door
- H.126) The boy shakes the tree for food/ The boy is shaking the tree for food

H.127) The girl nods in agreement/ The girl is nodding in agreement

H.128) The ball bounces/ The ball is bouncing

H.2 Modality questionnaire

H.2.1 Monoclausal

H.1.1.1 Deontic

Atomic telic dynamic

H.129) You should go

H.130) You should spear the wallaby

H.131) You should crush the egg

H.132) You should not go

H.133) You should not spear the wallaby

H.134) You should not crush the egg

H.135) You should have gone

H.136) You should have speared the wallaby

H.137) You should have crushed the egg

H.138) You should not have gone

H.139) You should not have speared the wallaby

H.140) You should not have crushed the egg

Non-atomic telic dynamic

H.141) You should eat this fruit

H.142) You should have eaten this fruit

H.143) You should not eat this fruit

H.144) You should not have eaten this fruit

H.145) You should cut down that big tree

H.146) You should have cut down that big tree

H.147) You should not cut down that big tree

H.148) You should not have cut down that big tree

Atelic dynamic

H.149) You should dance

H.150) You should have danced

H.151) You should not have danced

H.152) You should run

H.153) You should have run

H.154) You should not have run

H.155) You may dance

Statives

H.156) You must be happy

H.157) You must be strong

H.158) You must be fit

H.159) You must not be lazy

H.160) You must be angry

H.161) You must not be afraid

H.2.1.2 Weak deontic (permission)

H.162) You may eat this fruit

H.163) You can eat this fruit (if you want) (context: permission)

H.164) You may climb that tree

H.165) You can climb that tree (if you want) (context: permission)

H.166) You can go (talking to a pupil who obviously wants to go but does not dare)

H.167) You can follow my tracks

H.168) You can eat this cake (I don't need it)

H.169) He can open the bottle if he is thirsty

H.170) You can sit down if you are tired

(Weak) imperatives

H.171) Help yourself if you are hungry

H.172) Drink that water if you are thirsty

H.173) Take my arm if you are tired

H.174) Build a shelter if you are cold

H.175) Go to the beach if you want to swim

H.2.1.3 Epistemic

H.176) He must have gone. (His room is empty)

H.177) He must have thrown the stone. (The stone's no longer on the table)

H.178) He must have broken the branch. (The branch is broken, and I can see footprints)

H.179) He must have speared that wallaby. (I saw blood on his spear)

H.180) He must have danced. (He's all sweaty)

H.181) He must have eaten the chocolate pudding. (His mouth is all smeared in
chocolate)

H.182) He must be sick. (I can see cough lollies on the table)

H.183) He must have been sick

H.184) He might go

H.185) He might have gone

- H.186) He might not go
- H.187) He might not have gone
- H.188) He might spear the wallaby
- H.189) He might have speared the wallaby
- H.190) He might not spear the wallaby
- H.191) He might not have speared the wallaby
- H.192) He should be sick / be happy
- H.193) He might be sick / be happy
- H.194) He must be running / swimming
- H.195) He might be running / swimming
- H.196) Now he should be/must be/should have/must have arrived in Darwin
- H.197) This tree must have fallen
- H.198) This tree must be lying down
- H.199) A big tree must have been lying here
- H.200) A big tree might have been lying here
- H.201) It is possible that Sylvia will come late
- H.202) It is not possible that Sylvia will come late
- H.203) It is possible that Silvia will not come late
- H.204) It is likely that Carol will be sick
- H.205) It is not likely that Carol will be sick
- H.206) It is likely that Carol will not be sick
- H.207) It is certain Judy will be early
- H.208) It is not certain that Judy will be early
- H.209) It is certain that Judy will not be early

H.2.1.4 Frustratives (try and succeed vs. try and fail contexts)

H.210) He is trying to cross the street, trying really hard, ...

a) but there is too much traffic

b) and now he's reached the other side of the street

H.211) He was trying to break this branch, trying really hard, ...

a) but it was too hard

b) and eventually he broke the branch

H.212) He is trying to run / to laugh / to dance...

H.213) He is trying / tried to steal this fighting stick...

H.214) He is trying to stay there...

H.215) He is trying / tried to love this fish...

H.216) He is trying to stand / remain upright...

H.217) He was trying / tried to run / to laugh / to dance.... but he was too tired

H.218) He was trying / tried to steal this fighting stick... but he was too clumsy

H.219) He was trying / tried to stay there. but (people didn't want him around)

H.220) He was trying / tried to love this fish.... but it was too rotten

H.221) He was trying / tried to stand / remain upright.... but there was too much wind

H.2.1.5 Dynamic

H.222) Patrick cannot speak Anindilyakwa

H.223) When he visited us, Patrick could not speak Anindilyakwa. (And now he can)

H.224) James can speak Anindilyakwa

H.225) When he visited us, James could speak Anindilyakwa (now he's sadly forgotten)

H.226) James can drive a 4WD

H.227) Patrick cannot drive a 4WD

H.228) Patrick can lift small trees

H.229) When he visited us, Patrick could lift small trees. (But now he's too old)

- H.230) James cannot lift small trees
- H.231) When he visited us, James could not lift small trees. (But now he can, he's become strong)
- H.232) Patrick was able to lift the tree. (= he managed to do it)
- H.233) James wasn't able to lift the tree
- H.234) James can fix this recorder
- H.235) Patrick cannot fix this recorder
- H.236) James could have fixed this recorder
- H.237) Patrick could not have fixed this recorder
- H.238) Patrick can break this fishing line
- H.239) James cannot break this fishing line
- H.240) Patrick could break this fishing line
- H.241) James could not break this fishing line
- H.242) Patrick could have broken this fishing line
- H.243) James could not have broken this fishing line
- H.244) Patrick had to break the fishing line (= he was forced to break the fishing line)
- H.245) James had to eat that meat (= he was forced to eat that meat)
- H.246) Patrick did not have to break the fishing line
- H.247) James did not have to eat that meat
- H.248) James can lift this crate
- H.249) James could lift this crate
- H.250) James could have lifted this crate (but he didn't)
- H.251) Patrick could not have lifted this crate
- H.252) Patrick could not lift this crate (= he did not manage to lift it)

H.2.2 Future

H.2.2.1 Be going to

Be going to (with failed continuations)

H.253) He was going to put this bottle down, but he dropped it and it broke

H.254) He was going to sit down, but this woman took his chair and he fell down

H.255) He was going to leave, but his father forbade him to go

H.256) He was going to eat the fruit, but his mother took it away from him

Be going to + negation

H.257) He was not going to spear this wallaby – it was too beautiful

H.258) He was not going to crush the turtle egg – there were too few turtles left

H.259) He was not going to leave – he wanted to stay

H.2.2.2 Planning

H.260) I plan to make this bark painting tomorrow

H.261) I am not planning to make this bark painting tomorrow

H.262) I plan to go fishing at Salt Creek tomorrow

H.263) I am not planning to go fishing at Salt Creek tomorrow

H.264) I plan to spear a wallaby next week

H.265) I am not planning to spear a wallaby next week

H.266) I was planning to spear a wallaby next week

H.267) I plan to run along the Emerald river

H.268) I am not planning to run along the Emerald river

H.269) I was planning to run along the Emerald river

H.270) I was not planning to run along the Emerald river

- H.271) I plan to dance all night long
- H.272) I am not planning to dance all night long
- H.273) I was planning to dance all night long
- H.274) I was not planning to dance all night long
- H.275) I was planning to make this painting the following day
- H.276) I was not planning to make this painting the following day
- H.277) I was planning to go fishing at Salt Creek the following day
- H.278) I was not planning to go fishing at Salt Creek the following day
- H.279) We will meet there at nightfall
- H.280) We will not meet there are nightfall
- H.281) We decided we would meet there at nightfall
- H.282) We decided we would not meet there at nightfall
- H.283) We will eat together tomorrow
- H.284) We will not eat together tomorrow
- H.285) We agreed we would eat together the next day
- H.286) We agreed we would not eat together the next day
- H.287) My flight will leave at 4 pm
- H.288) My flight will not leave at 4 pm
- H.289) My son will arrive soon
- H.290) My son will not arrive soon

H.2.3 Open conditionals

Positive antecedent, positive consequent

- H.291) If he comes, they will sit there / dance
- H.292) If he waits, that man will kill him / the girl will hit him
- H.293) If he stays, they will eat giant clams / cut down a big tree

Negative antecedent

H.294) If he doesn't come, they will sit there

H.295) If he doesn't wait for them, they will kill him

H.296) If he doesn't stay here, they will eat clams

Telic antecedent, atelic consequent

H.297) When we come, I'm sure he'll be eating (=in the process of eating) the clams –
but we'll stop him, and he won't finish them

H.298) When we come, I'm sure he'll eat the clams

H.299) When we come, I'm sure he'll have eaten the clams

H.300) When we come, I'm sure he'll be singing – but we'll make him stop, he sings so
badly

When clause open conditionals

H.301) When I come back, he'll eat clams

H.302) When I come back, he'll be eating clams / in the process of eating clams

H.303) When I come back, he'll run

H.304) When I come back, he will be running / in the process of running

H.305) When I come back, he will leave

H.306) When I come back, he will be leaving

H.307) When I come back, he will be about to leave

H.308) When I came back, he ate clams (= he started eating clams)

H.309) When I came back, he was eating clams

H.310) Whenever I came back /saw him, he was eating clams

H.311) Whenever I came back, he ate clams

H.2.4 Past conditionals

Positive antecedent, positive consequent

H.312) If he came, they would sit there / they would dance

H.313) If he had come, they would have sat there / would have danced

H.314) If he waited, that man would kill him / the girl would hit him

H.315) If he had waited, that man would have killed him / that girl would have hit him

H.316) If he stayed, they would eat giant clams / cut down a big tree

H.317) If he had stayed there, they would have eaten clams / would have cut down a big tree

Negative antecedent

H.318) If he didn't come, they would sit there

H.319) If he hadn't come, they would have sat there

H.320) If he didn't wait, they would kill him

H.321) If he hadn't waited, they would have killed him

H.322) If he didn't stay there, they would eat clams

H.323) If he hadn't stayed there, they would have eaten clams

Positive antecedent, negative consequent

H.324) If he came, they would not sit there

H.325) If he had come, they would not have sat there

H.326) If he hadn't come, they would have sat there

H.327) If he waited, they would not kill him

H.328) If he had waited, they would not have killed him

H.329) If he stayed there, they would not eat clams

H.330) If he had stayed there, they would not have eaten clams

Aspectual variation with telic verbs

H.331) If he had been eating clams when we arrived, we would have made him stop

H.332) If he had been singing when we arrived, we would have made him stop

H.333) If he had been running when we arrived, we would have made him stop

H.334) If he has been cutting the tree down when we arrived, we would have made him
stop

H.335) If he had not been cutting the tree when we arrived, we would have told him off

H.336) If he had not been eating the clams when we arrived, we would have told him off

Appendix I

Texts

An example text of one of the oral narratives collected for this project is provided in this appendix. This, along with the other narratives collected for this project, are deposited with PARADISEC (www.paradisec.org.au/repository/JRB1).

This short narrative, told by Judy Lalara, describes the change to the environment, and particularly to Emerald River, caused by mining on Groote Eylandt. She contrasts the beauty of the country and the river in the 1970s, to its current condition today.

Adhəlyuma=lhangwa ‘About the river’

(Judy Lalara, JRB1-007-01, 00:00:21.326-00:02:23.991)

yaw, arakba+wiya yirruwa yirru-kwayuwa=wiya ena
yes COMPL.ACT+QUANT 1A.PRO 1A-child=QUANT NEUT.this
adhəlyuma arəma
NEUT.river NEUT.big

Yeah, long time ago when we were little this river was big and wide and deep,

yirra-lhəka-rnə=ma yirri-dhirrərndhə-nə=ma adhəlyuma=wa
REAL.1A-go-PST=MUT REAL.1A-descend-PST=MUT NEUT.river=ALL
yirri-ngambe-nə=ma yakwujina
REAL.1A-swim-PST=MUT there

we went down to swim at the river there.

<i>akwalha=manja</i>	<i>wurradhadhuyuwangkwa</i>	<i>na-lhake-nə=ma</i>
NEUT.some=LOC	3A.old.woman	REAL.3A-go-PST=MUT
<i>adhalyuma=wa</i>	<i>na-war.da-ngə=ma</i>	<i>washing yakwujina</i>
NEUT.river=ALL	REAL.3A-work-PST=MUT	NEUT.washing there

Sometimes old women also went to the river to do washing at the river there.

<i>yirra-rrbə-rrangka-Ø=ma</i>	<i>na-yan-jamarrka-Ø=ma</i>	<i>yakwujina</i>
REAL.1A>3A-REDUP-see-PST=MUT	REAL.3A-REDUP-how.to.do-PST=MUT	there
<i>adhalyuma=manja</i>		
NEUT.river=LOC		

We used to watch older women wash their clothes at the river

<i>narrəma-mərndak-ajirra-ngə=ma</i>	<i>dhəmbalha-mərriya</i>
REAL.3A>VEG-many-wash-PST=MUT	VEG.clothes-the.rest
<i>narrəma-mərndak-ara-rurrmaja-Ø=ma</i>	<i>karrawara amarda-mərriya=manja</i>
REAL.3A>VEG-many-REDUP-dry-AM=MUT	above NEUT.grass-the.rest=LOC

and then they dried their clothes on dry grasses.

<i>akəna</i>	<i>yirri=lhangwa=manja</i>	<i>time</i>	<i>angwujira</i>	<i>akəna</i>	<i>adhalyuma</i>
NEUT.that	1A.PRO=POSS=LOC	time	NEUT.deep	NEUT.that	NEUT.river

and that was in our times, the river was deep.

<i>kemba mining.company</i>	<i>na-lhake-nə=manja</i>	<i>arakba</i>	<i>yangkwurrangwa</i>
then mining.company	REAL.3A-go-PST=LOC	COMPL.ACT	to.here

Then BHP came here.

<i>wurr-ambawura</i>	<i>arakba</i>	<i>wurru-missionary</i>	<i>yelakwa</i>	<i>nuw-ambilya</i>
3A-few	COMPL.ACT	3A-mission	here	REAL.3A-stay.PST
<i>biya</i>	<i>wurru-kwala</i>	<i>na-lhawurradhə-na</i>		
and.then	3A-some	REAL.3A-return-PST		

A few of the missionaries stayed here while others left,

nara kuw-ambilya yelakwa
 NEG IRR.3A-stay.PST here
 they didn't stay any longer here.

ambaka+lhangwa na-mənəngka-dhə-nə=ma ena angalya
 later+ABL [=slowly] REAL.NEUT-different-INCH-PST=MUT NEUT.this NEUT.place
 Slowly this place seems to get different,

narri-blasti-ngə=manja ena angalya angurruka
 REAL.3A-blast-PST=LOC NEUT.this NEUT.place Angurugu
 when they do blasting near Angurugu.

akəna adhəlyuma arakba na-mənəngka-dhə-nə=ma
 NEUT.this NEUT.river COMPL.ACT REAL.NEUT-different-INCH-PST=MUT
ne-yukwudaji-nə=ma
 REAL.NEUT-get.short-PST=MUT
 and then slowly the river started to get shallow.

yarnamalya yirri-minandhabe-yi-nə=ma mena ena
 1A.person REAL.1A-wonder-RECIP-PST=MUT because NEUT.this
akungwa ne-yukwaja-dhə-nə=ma
 NEUT.water REAL.NEUT.small-INCH-PST=MUT
 We were thinking about this because the water was getting shallow

wurr-akəna=baba wurru-mangkadhərra angkwurruku=wa na-lhəke-nə=ma
 3A-that=REAS 3A-non.indigenous Angurugu=ALL REAL.3A-go-PST=MUT
yangkwurrangwa narri-minangkaka=ma ena angalya akwa
 to.here REAL.3A-?=MUT NEUT.this NEUT.water and
ena kamba adhəlyuma ne-yukwaja-dhə-nə=ma
 NEUT.this then NEUT.river REAL.NEUT-small-INCH-PST=MUT
 Non-Indigenous people came here, and the river became shallow.

əmba arakba+wiya angwujira akwa akwulyubena akungwa
 but COMPL.ACT+QUANT NEUT.deep and NEUT.good NEUT.water

But long time ago it was deep and wide and beautiful.

<i>kembirra</i>	<i>arakba</i>	<i>ena=manja</i>	<i>nara</i>	<i>arakba</i>	<i>nawurrari=yedha</i>
then	COMPL.ACT	NEUT.this=LOC	NEG	COMPL.ACT	NEUT.?=PURP
<i>ne-yukwuja-dhə-na</i>		<i>arakba</i>	<i>ena</i>	<i>adhəlyuma</i>	
REAL.NEUT-small-INCH-PST	COMPL.ACT	NEUT.this	NEUT.this	NEUT.river	

Now, this time, it's no longer deep anymore.

Synthèse

i Introduction

Cette thèse sur l'*anindilyakwa* contribue à la recherche dans le domaine de la sémantique et de la pragmatique temporelle, aspectuelle et modale (et leurs interfaces avec la morphosyntaxe). Elle fournit une analyse empirique et théorique du système TAM d'*anindilyakwa*, une langue *gunwinyguan* peu documentée de l'archipel de Groote Eylandt, au nord-est de la région d'Arnhem en Australie.

Les objectifs de la thèse sont à la fois descriptifs et théoriques. Le premier objectif est de fournir une description détaillée des propriétés grammaticales principales les plus importantes de l'*anindilyakwa*, en particulier celles liées au groupe verbal. Cet objectif descriptif est enrichi par le deuxième objectif, qui est de contribuer à la recherche dans le domaine de la sémantique et de la pragmatique du TAM (et de leurs interfaces avec la morphosyntaxe) en entreprenant une analyse à fondement théorique de l'expression et de l'interaction temporelles, aspectuelles et modales en *anindilyakwa*. La principale innovation de cette thèse réside dans la combinaison (i) d'approches théoriques morphosyntaxiques, sémantiques et pragmatiques dans l'étude de l'expression du TAM dans les langues naturelles avec (ii) une approche descriptive de terrain. Le présent travail est une manière de réponse à la double question suivant : comment les langues peu documentées et étudiées éclairent-elles notre compréhension d'un domaine catégoriel général comme le TAM, comment ces, et comment peut-on aborder la documentation de catégories TAM dans de travail de terrain portant sur de telles langues ? De la sorte, la présente étude sémantique et morphosyntaxique approfondie du système TAM de l'*anindilyakwa* contribue non seulement à la description de cette langue très peu documentée, mais elle profite également à notre connaissance des langues

peu étudiées (en particulier non européennes) dont le système TAM a fait l'objet d'une étude approfondi, ce qui garantira l'accès des futurs travaux typologiques multilingues dans ce domaine à des données plus riches et plus accessibles, dans un échantillon plus large des langues du monde.

Les études sur la sémantique et la pragmatique des systèmes TAM ont examiné des questions aussi épineuses que le temps et l'aspect d'inflexion, l'*Aktionsart* (la structure de l'action/événement), le mode grammatical (e.g. la distinction entre l'indicatif et le subjonctif), et les modalités (e.g. celles qui sont exprimées par les auxiliaires modaux) dans les langues indo-européennes et un nombre limité d'autres langues, mais il y a beaucoup moins de recherches dans ce domaine portant sur des langues peu documentées. Ainsi, les théories relatives à la sémantique et à la pragmatique des systèmes TAM ont été (et continuent à être) fortement guidées par une perspective eurocentrique. Bien qu'il y ait eu récemment une expansion du nombre de recherches approfondies sur les systèmes TAM des langues non indo-européennes, il s'agit toujours d'un domaine très peu étudié dans les langues peu documentées, y compris les langues australiennes.

La présente étude cherche donc à promouvoir nos connaissances dans un domaine de recherche peu étudié dans les langues non indo-européennes, en fournissant une analyse détaillée du système TAM d'une langue australienne peu documentée (de type *non-Pama-Nyungan*) ; à savoir l'*anindilyakwa*.

L'*anindilyakwa* est une langue particulièrement intéressante, étant donné la nature complexe de son système verbal et le fait qu'il s'agit d'une langue vivante, parlée comme langue première par des locuteurs de tous âges, ce qui permet de mener des recherches plus poussées et nuancées. En outre, l'*anindilyakwa* fait partie de la famille des langues *gunwinyguan*, dont plusieurs continuent à être parlées par nombreux locuteurs (au moins dans le contexte des langues aborigènes australiennes), comme les langues *bininj gun-wok* (*kunwinjku*, *kuninjku*, *kunjku*, *kune*, *mayali*) et *wubuy*. Cela ouvre la porte à de futures recherches comparatives systématiques sur le TAM dans toute la famille linguistique du *gunwinyguan*.

La nécessité d'améliorer les méthodes de documentation dans le domaine de la sémantique TAM est liée à la volonté d'assurer une meilleure représentation interlinguistique des systèmes TAM exploitant également des langues non européennes, à petite échelle, et sous-documentées. L'analyse de la sémantique TAM des langues peu documentées est souvent difficile en raison à la fois d'un manque de données et d'une difficulté d'interprétation des données. Il est donc nécessaire de combiner le travail de terrain avec des approches

sémantiques et pragmatiques théoriquement éclairées afin d'améliorer les techniques de collecte, ce qui en permet une analyse plus avancée et systématique des données recueillies.

La langue anindilyakwa

D'un point de vue typologique, l'*anindilyakwa* a été reconnu pour sa complexité morphologique et sa richesse polysynthétique (impliquant le recouplement d'arguments fondamentaux du verbe, l'incorporation nominale et l'existence de divers affixes verbaux dérivés et variables). Certains chercheurs l'ont décrit comme « peut-être la plus difficile des langues australiennes, avec une grammaire très complexe » (Dixon 1980 : 98, Capell 1942 : 376, cité dans van Egmond 2012 : 1). Bien que sans doute complexe, van Egmond (2012) a démontré que c'est une langue en fait plus régulière que ne le laissent croire les recherches antérieures, et qui, sur de nombreux points, n'est pas sans rappeler d'autres langues *gunwinyguan*.

Bien que l'inventaire des consonnes de l'*anindilyakwa* soit conforme à celui des autres langues du groupe, il comporte un inventaire atypique de voyelles et de phonotactiques (van Egmond 2012). La langue a une structure de marquage des têtes, ce qui veut dire que les marques casuelles y sont principalement utilisées pour identifier les rôles sémantiques (par exemple, l'emplacement spatial et le mouvement vers et depuis un emplacement) et les relations adnominales (entre nominaux), plutôt que les arguments grammaticaux.

La langue *anindilyakwa* comporte un système complexe de classificateurs nominaux et un système obligatoire de références croisées et d'accord sur les noms et les verbes (van Egmond 2012 : 1).

Le complexe verbal est la classe de mots la plus élaborée, comprenant des radicaux de verbes qui consistent historiquement en une racine de verbe non infléchié et un élément infléchissant, impliquant une morphologie complexe, comme l'utilisation de multiples (2+) morphes discontinus dans l'expression des catégories du TAM.

Données démographiques

L'*anindilyakwa* est parlée par au moins 1 500 personnes qui vivent à Groote Eylandt et sur l'île voisine de Bickerton Island. Dans le contexte des langues aborigènes australiennes, c'est une langue dynamique : une des rares langues dont le nombre de locuteurs natifs a

considérablement augmenté au cours du siècle dernier, et une des rares qui soit encore acquise par des enfants.

Données recueillies dans le cadre de ce projet

Ce projet a été rendu possible grâce à des données spécifiquement recueillies par l'auteur entre 2015 et 2019. Des documents hérités des années soixante-dix, quatre-vingts et quatre-vingt-dix ont également été mis à profit.

La collecte de données pour la période de 2015 à 2019 s'est faite de plusieurs façons incluant des séances d'élicitations structurées, des contextes semi-induits utilisant des stimuli (pour recueillir des données structurées et reproductibles), des récits libres et du matériel conversationnel.

La collection patrimoniale est composée de deux sous-collections : i) la collection de Stokes et Waddy (récits de plusieurs genres enregistrés de 1970 à 1990 par une variété de locuteurs) et ii) la « Mini-Bible » (Bible Society in Australia 1992), une traduction en *anindilyakwa* des six premiers livres de la Bible.

ii Le verbe de l'*anindilyakwa*

Les verbes de l'*anindilyakwa* se distinguent par la complexité de leur morphologie flexionnelle. Le verbe marque la personne, le nombre, la modalité et la transitivité à l'aide d'une série de préfixes porte-manteaux. L'expression TAM combine des informations de deux, voire trois, positions morphologiques du gabarit verbal (paradigmes des préfixes porte-manteaux et des suffixes TAM). L'expression des arguments sont exprimés par des affixes dérivés (notamment les affixes BÉNÉFACTIF, RÉFLEXIF, RÉCIPROQUE et CAUSE). Des verbes additionnels peuvent intégrer de façon productive des noms. Pour démontrer cette complexité morphologique, et compte tenu des nombreuses combinaisons paradigmatiques possibles de préfixes porte-manteaux et de suffixes TAM¹³⁹, un verbe transitif peut donner lieu à 1 912 formes infléchies différentes.

¹³⁹ C'est-à-dire les combinaisons du préfixe porte-manteau REEL/IRREELS/DEONTIQUE et les paradigmes TAM PASSE/NON-PASSE/Ø/POTENTIEL.

Composition et complexité morphologique verbale

Le verbe de l'*anindilyakwa* implique une structure morphologique et combinatoire complexe. Ceci est particulièrement évident lorsqu'on considère l'expression du TAM, réalisée en combinant l'information de deux, voire trois, positions morphologiques discontinues dans le gabarit verbal (paradigmes des préfixes porte-manteaux et des suffixes TAM), l'un et l'autre nécessaires pour fournir une interprétation précise et significative du verbe infléchi.

Bien que le système d'inflexion du verbe de l'*anindilyakwa* semble assez transparent et que, dans de nombreux cas, nous puissions proposer une relation unique entre le contenu et la forme de l'inflexion (c.-à-d. l'exponence canonique¹⁴⁰), il existe plusieurs situations moins simples où des approches alternatives pourraient être envisagées pour analyser et expliquer adéquatement le système.

Afin de fournir une analyse satisfaisante de l'exponence non canonique en particulier, je revendique une approche Word-and-Paradigm (c.-à-d. une approche inférentielle-réalisationnelle).

Le gabarit verbal

L'*anindilyakwa* a des radicaux de verbe aussi bien simples que complexes ; les radicaux simples sont composés uniquement de la racine du verbe, tandis que les radicaux complexes sont composés d'un élément (historiquement) non infléchi suivi d'une ancienne racine de verbe fini qui, bien que monomorphémique de manière synchronique, assume encore aujourd'hui la forme d'un élément submorphémique radical-final (voir van Egmond 2012, Chapitre 5)

Le verbe de l'*anindilyakwa* (qui a une structure templatique) est impliqué dans le marquage de la personne, du nombre, de la modalité et de la transitivité (à l'aide d'une série de préfixes porte-manteaux) ; dans l'expression du TAM, qui combine des informations de deux, voire trois, positions morphologiques de le gabarit verbal (une des trois séries de préfixes pronominaux RÉEL, IRRÉEL, DÉONTIQUE) et un des quatre suffixes TAM possibles (NON-PASSÉ, PASSÉ, Ø, POTENTIEL) ; dans l'expression des arguments (par des affixes dérivés) ; et dans la capacité d'intégrer de façon productive des éléments nominaux.

¹⁴⁰ L'exponence est l'association entre les marques flexionnelles et les propriétés morphosyntaxiques et morphosémantiques (Stump 2001 : 11).

iii Aperçu des types de propositions en *anindilyakwa*

L'*anindilyakwa* étant une langue « de marquage des têtes verbales », avec un ordre de mots déterminé de façon pragmatique (c.-à-d. exprimant les arguments de base sur le verbe seulement, ayant ainsi des noms libres non obligatoires), il peut être difficile de délimiter exactement ce qui constitue une proposition. Cependant, l'intonation est un moyen souvent utilisé dans plusieurs langues pour délimiter les unités propositionnelles, ce qui peut aider à identifier les unités propositionnelles de l'*anindilyakwa*. A cet égard, les unités d'intonation peuvent être considérées comme des unités d'information de base dans le discours parlé (et peuvent donc être considérées comme la base des unités propositionnelles) (voir Schulze-Berndt 2000).

Un examen des propositions de l'*anindilyakwa* permet d'opérer une première distinction entre propositions simples, indépendantes, et dépendantes (c.-à-d. impliquées dans des structures propositionnelles complexes, où elles suivent obligatoirement une proposition indépendante). Les verbes indépendants et dépendants impliquent généralement des verbes finis entièrement infléchis, alors que (moins fréquemment) les propositions dépendantes impliquent des verbes non finis.

Les propositions simples et indépendantes peuvent être verbales (c.-à-d. contenir un verbe fini) ou bien averbales (quand elles ont été créées sans prédicat verbal).

Dans les propositions verbales, le « marquage des têtes verbales » est régi par les propriétés valentielles du verbe. La valence détermine les arguments qu'un verbe peut gérer : une distinction primaire est faite entre les verbes monovalents (c.-à-d. ceux qui prennent un seul argument de sujet (S)), les verbes bivalents (qui prennent l'argument de sujet (S) et d'objet direct (OD)) et les verbes trivalents (qui prennent trois arguments [sujet (S), objet direct (OD) et objet indirect (OI)]. Les verbes monovalents et bivalents marquent le S (et OD dans le cas des verbes bivalents) par un préfixe pronominal sur le verbe. Pour les verbes trivalents, cependant, étant donné que les verbes ne peuvent faire référence qu'à deux arguments par le préfixe pronominal, l'OD n'est pas exprimé à partir de la tête du verbe, et se présente plutôt comme un nom libre. Il y a aussi des verbes semi-transitifs qui sont intermédiaires entre les verbes entièrement intransitifs et les verbes entièrement transitifs, où l'argument objet direct n'est pas renvoyé sur le verbe, mais plutôt exprimé comme un nominal manifeste ; et des verbes objets apparentés, qui sont morphologiquement intransitifs, mais qui peuvent prendre un argument non enregistré. Le préfixe dérivé applicatif BÉNÉFACTIF est utilisé pour ajouter un argument supplémentaire au verbe.

Il y a un certain nombre de constructions qui ne se produisent généralement pas avec un prédicat verbal ; celles-ci incluent des propositions existentielles, équatives et ascriptives (qui peuvent impliquer des possessifs, des prédicats « d'avoir » et des comparatifs), ainsi que des propositions exprimant des états cognitifs (généralement exprimés par des prédicats adjectifs plutôt que des verbes), et des modalités téléologiques.

Les propositions dépendantes en *anindilyakwa* comprennent des propositions dépendantes finies (propositions relatives et adverbiales subordonnées) et (moins souvent) des propositions dépendantes non finies (par lesquelles un verbe désigné fonctionne comme verbe non fini dans une proposition dépendante).

Étant donné que les verbes finis peuvent se produire à la fois dans les propositions indépendantes et dépendantes, l'identification des premières par rapport aux secondes peut être difficile, puisque ces deux types de propositions impliquent des verbes finis entièrement infléchis, pouvant donc sembler formellement identiques.

Les subordonnées relatives sont obligatoirement marquées avec le marqueur subordonnée =*ma* ~ =*mər̥ra*, suivant le morphe [+3] TAM du groupe verbal. Souvent, les clitiques de cas s'attachent à des propositions relatives, afin d'exprimer les mêmes significations que celles qu'ils expriment lorsqu'ils sont attachés à des nominaux (généralement des rôles sémantiques exprimant une signification spatiale).

En plus de s'attacher aux verbes finis dans les subordonnées relatives, les clitiques de cas peuvent s'attacher aux verbes finis pour remplir une fonction différente, plus en particulier pour spécifier une relation temporelle, logique ou spatiale avec une autre proposition (voir Hale 1976 ; Dench & Evans 1988). Il en résulte des propositions subordonnées adverbiales *t-complementising* (terme consacré dans la littérature australienne). Contrairement aux propositions relatives en *anindilyakwa*, celles qui prennent obligatoirement le marqueur de subordination =*ma* ~ =*mər̥ra*, pour des clauses subordonnées adverbiales *t-complementising*, cela dépend du clitique en question : certains prennent obligatoirement le marqueur =*ma* ~ =*mər̥ra*, d'autres l'excluent.

iv *Aktionsart* (Structure de l'événement)

Les propriétés temporelles intrinsèques du verbe jouent un rôle important dans le système d'expression aspectuelle de l'*anindilyakwa*. L'intersection entre les propriétés lexicales du verbe (c.-à-d. l'aspect de la structure de l'événement) et le système de marquage flexionnel du

verbe est une caractéristique particulièrement importante de la langue¹⁴¹. Étant donné que l'*anindiyakwa* a un système flexionnel caractérisé par un degré élevé de sous-spécification aspectuo-temporelle, cela signifie que les propriétés de l'*Aktionsart* (ainsi que le discours et les facteurs contextuels) jouent souvent un rôle important pour distinguer entre elles différentes interprétations aspectuo-temporelles.

L'identification des propriétés de l'*Aktionsart* a longtemps été utilisée pour classer les situations. C'était le sujet de l'article fondateur de Vendler (1957), un article très influent dans le domaine de l'*Aktionsart*, qui proposait que des groupes de propriétés syntaxiques pouvaient être utilisés pour caractériser différents types de situations. Vendler proposait quatre classes d'*Aktionsart* : *States*, *Activities*, *Achievements* et *Accomplishments*.

Bien que les classes vendleriennes aient été très influentes, les distinctions temporelles et les tests diagnostiques pour ces distinctions sont largement basés sur des données anglaises. Il est toutefois difficile de fonder des hypothèses sur une seule ou sur un petit sous-ensemble de langues, et il est nécessaire que les paramètres de l'*Aktionsart* soient établis séparément pour différentes langues, en utilisant des moyens spécifiques à la langue (Smith 1996).

Du fait que les différentes propriétés distributionnelles associées aux différents *Aktionsarten* sont uniques d'une langue à l'autre (Smith 1996 : 229), les principales propriétés de l'*Aktionsart* en *anindiyakwa* ont été identifiées grâce à l'examen de la distribution grammaticale admissible (et non admissible) et la co-occurrence de divers adverbiaux temporels (principalement des adverbiaux de mesure et des adverbiaux indirects) ainsi que les propriétés morphosyntaxiques des modèles de réduction et du marquage par le TAM flexionnel.

Au cours de cette analyse, nous avons observé que certains des variables/tests les plus saillants peuvent être utilisés pour identifier des distinctions en ce qui concerne les propriétés temporelles inhérentes aux différents groupes verbaux en *anindiyakwa* se rapportant à deux propriétés distinctes : le dynamisme et l'atomicité.

Le dynamisme distingue les situations statives des événements (c.-à-d. les situations dynamiques), et en *anindiyakwa*, l'interaction entre l'*Aktionsart* et le système TAM inflexionnel (impliquant spécifiquement les verbes infléchis avec le paradigme du préfixe RÉEL et le paradigme du radical Ø) peut être utilisée comme diagnostic du dynamisme.

¹⁴¹ La thèse adopte une approche bidimensionnelle de l'aspect, dans laquelle le terme général *aspect* est utilisé pour différencier deux notions : i) « aspect du point de vue », c'est-à-dire le marquage grammatical de la perspective de l'orateur sur l'événement (généralement exprimée par des formes infléchies) ; et ii) « *Aktionsart* » / « aspect de structure d'événements », c'est-à-dire les propriétés aspectuelles internes d'une situation.

La propriété de l'atomicité est une caractéristique sémantique saillante qui est essentielle pour distinguer les différents types de situations en *anindilyakwa*. Il existe différentes distinctions grammaticales en *anindilyakwa* qui sont en corrélation avec les propriétés de l'atomicité. Les adverbiales de durée (mesures adverbiales et adverbiales de durée implicites) sont des variables diagnostiques particulièrement utiles pour ces paramètres, et de plus, le système T/A flexionnel (en particulier la combinaison du paradigme du préfixe pronominal RÉEL avec le paradigme du radical Ø), est sensible aux propriétés atomiques, observables par interprétation temporelle du prédicat verbal.

La télicité n'est pas aussi importante que d'autres paramètres d'*Aktionsart* en *anindilyakwa*. En revanche, la télicité semble jouer un rôle dans la détermination des corrélats de distribution acceptables implique la reduplication, où les prédicats redondants de type télique peuvent exprimer des interprétations aspectuelles prolongées/étendues/continues (ainsi que des interprétations aspectuelles pluractionelles), alors que les prédicats redondants de type télique peuvent seulement exprimer les interprétations pluractionelles.

v Morphologie dérivée, *Aktionsart* et la signification des mots

Dans l'analyse des propriétés de l'*Aktionsart*, il est important de tenir compte de la morphologie dérivée (par rapport à l'analyse du sens des mots), particulièrement en ce qui concerne les statifs et les éventualités de changement d'état inchoatif.

En *anindilyakwa*, il y a deux suffixes verbalisants productifs qui s'attachent aux radicaux nominaux pour former des radicaux verbaux : l'INCHOATIF *-dhə-* et le FACTITIF *-kə-* ~ *-kwə-*. De telles paires de verbes inchoatifs/factitifs dérivés d'un seul radical ont souvent été décrites dans les descriptions des langues australiennes comme formant des modèles généraux d'alternance inchoative/causative, ces alternances ayant parfois été supposées de présenter un type particulier d'alternance transitive (cf. Caudal, Dench & Roussarie 2012 : 118). Cependant, en *anindilyakwa* les radicaux marqués comme des FACTITIFS expriment toujours une causalité de changement d'état (c.-à-d. des interprétations jamais statives), alors que les radicaux marqués comme des INCHOATIFS ont deux interprétations à leur disposition : une interprétation de changement d'état et une interprétation statique (c.-à-d. les verbes dérivés de type INCHOATIF ne sont pas simplement classés comme des inchoatifs, mais plutôt comme des états transitoires à interprétation inchoative *bona fide*).

La capacité d'un nominal à prendre une interprétation de changement d'état inchoatif (en plus d'une interprétation stative), et d'un radical de verbe INCHOATIF dérivé à prendre une

interprétation stativale (en plus d'une interprétation de changement d'état inchoatif), dépend des propriétés lexicales du radical. Afin de comprendre la relation entre les radicaux nominaux et les radicaux de verbes dérivés exprimant des interprétations statives et de changement d'état, il importe d'examiner les propriétés sémantiques du radical du verbe nominal/dérivé.

Par conséquent, lorsque nous examinons ces radicaux de verbes de type INCHOATIF dérivés qui affichent ces deux interprétations possibles (changement d'état statif et inchoatif), nous constatons que les prédicats décrivant des propriétés au niveau du stade (c.-à-d. des propriétés temporaires, variables et gradables) prennent des interprétations statives et des propriétés au niveau du changement d'état, alors que la seule interprétation à laquelle se prêtent les prédicats qui expriment des propriétés individuelles (propriétés permanentes) est celle d'un changement d'état.

Il est donc clair qu'il existe des propriétés lexico-sémantiques régulières qui imposent des interprétations différentes en ce qui concerne l'utilisation productive des marqueurs dérivés INCHOATIF/FACTITIF. Ces deux marqueurs dérivés doivent être considérés comme des facteurs d'éventualité au niveau du stade (cf. Caudal et al 2012 : 120), tout en montrant des exigences sémantiques différentes sur leurs entrées : l'INCHOATIF exige des entrées statives ou des entrées de prédicats au niveau du stade du changement d'état, tandis que le FACTITIF exige une entrée de prédicats de changement d'état (cf. Caudal et al 2012) pour une discussion comparable portant sur le *panyjima* (langue *Pama-Nyungan*)).

Suite à cet examen des marqueurs dérivés INCHOATIF/FACTITIF, nous pouvons fournir une classification générale des radicaux de base en *anindilyakwa*. Deux types de radicaux de base seront identifiés : d'une part, les bases prédictives dénotant la propriété (les bases nominales qui désignent une propriété associée à la signification fondamentale d'un prédicat d'événement, incluant i) les bases nominales qui, dans les radicaux dérivés d'INCHOATIF, peuvent désigner des interprétations statives ou non statives (changement d'état) au niveau du stade ; et ii) les bases nominales qui indiquent des propriétés atomiques individuelles) ; et, de l'autre, les bases nominales qui indiquent une propriété de certains arguments de ce prédicat (i.e. les bases nominales qui, au lieu d'exprimer des propriétés prédictives, dénotent un argument du prédicat d'événement fourni par la dérivation verbale).

vi Marquage inflexionnel du temps et de l'aspect du verbe

La série obligatoire de préfixes porte-manteaux et des suffixes TAM dans le modèle verbal (c.-à-d. les paradigmes de deux positions morphologiques discontinus de le gabarit verbal), exprime différentes catégories TAM en *anindilyakwa*.

L'un des principaux objectifs de ce chapitre porte sur la manière dont la référence temporelle est exprimée en *anindilyakwa*, en particulier par rapport aux formes verbales qui relèvent du passé et du présent (avec possibilité d'autres interprétations « non actualisées », impliquant les paradigmes IRRÉEL et DÉONTIQUE). Les interprétations temporelles passées et présentes sont exprimées par la morphologie verbale flexionnelle (obligatoire) (i.e. marquage flexionnel de RÉEL-V-PASSÉ/N.PASSÉ/Ø), ainsi que par des marqueurs temporels facultatifs (par exemple des adverbes temporels).

Temporellement, le système T/A flexionnel de l'*anindilyakwa* se fait remarquer par un manque relatif de contrastes à l'intérieur de ses séries paradigmatiques : le système affiche un syncrétisme assez répandu, ce qui peut obscurcir l'identification des contrastes temporels. Alors que les marqueurs PASSÉ et NON-PASSÉ sont censés véhiculer une distinction temporelle passé/non passé (en combinaison avec le préfixe portemanteau RÉEL), cette distinction est souvent formellement neutralisée, ce qui donne lieu à des marques morphophonologiques identiques en position finale de mot. L'absence de forme phonologique manifeste dans la positions [+3] dans le gabarit verbal constitue une autre possibilité ; la référence temporelle est alors déterminée par les propriétés d'*Aktionsart* et, en outre, par des paramètres structurels du discours.

L'un des aspects les plus remarquables du système T/A flexionnel de l'*anindilyakwa* est la nature hautement syncrétique de nombreux marqueurs T/A et l'absence de contrastivité, facteurs qui aboutissent à de nombreux appariements de forme/sens. Ceci s'ajoute à l'absence de spécificité sémantique des formes T/A (ce qui est particulièrement évident avec le marqueur -Ø). Étant donné cette absence de distinction temporelle et d'inflexion manifeste, de nombreuses phrases en *anindilyakwa* ne semblent contenir aucune information temporelle manifeste, les phrases se produisant sans marqueur de temps/aspect d'inflexion phonologique manifeste, ou sans particule temporelle ou adverbe, s'appuyant pour fournir l'infrastructure nécessaire à l'expression de la structure temporelle de la situation sur les propriétés *Aktionsart* et les paramètres structurels du discours.

En ce qui concerne l'aspect, l'*anindilyakwa* n'a pas de système d'aspect à forte inflexion. Les marqueurs PASSÉ et NON-PASSÉ sont aspectuellement sous-spécifiés (les situations

possédant ces marqueurs T/A peuvent être ouvertes ou fermées, déterminées en grande partie par l'*Aktionsart*, par le contexte et par la connaissance du monde) et le marqueur -Ø est aspectuellement (ainsi que temporellement) sous-spécifié.

La position Ø phonologique du paradigme d'inflexion du TAM (c.-à-d. l'intervalle réalisé par l'absence de marqueurs phonologiques manifestes dans la position [+3] dans le gabarit verbal), en combinaison avec le paradigme du préfixe porte-manteau, est impliqué dans une série de fonctions T/A complexes. Les verbes infléchis RÉEL portant le marqueur phonologique Ø sont temporellement et aspectuellement sous-spécifiés, cependant leurs interprétations temporelles et aspectuelles peuvent être déduites des propriétés aspectuelles de l'*Aktionsart* du complexe verbal ; les événements atomiques prennent la référence temporelle passée, les événements dynamiques non atomiques sont capables d'exprimer la référence temporelle présente et passée, et les états de la référence temporelle actuelle. Les verbes infléchis RÉEL-V-Ø qui prennent des références temporelles passées expriment des interprétations de points de vue aspectuellement parfaites.

Un sujet important de ce chapitre concerne la question de savoir ce qui déclenche l'interprétation temporelle des tiges de verbes dénudées par flexion (c.-à-d. les verbes phonologiquement marqués Ø). Pour les verbes marqués Ø, il est montré que l'*Aktionsart* est souvent important pour la déduction d'informations temporelles. Les verbes statifs déclenchent une interprétation actuelle ; les verbes décrivant des événements téliques et atomiques d'une interprétation au passé ; et les verbes décrivant des événements dynamiques atéliques (c.-à-d. des activités et des changements d'état non limités tels que des « réalisations de degré » ou des événements non atomiques (c.-à-d. par grandes réalisations) sont capables d'interprétations passées et présentes. Je propose donc une approche pour analyser l'expression temporelle des verbes infléchis RÉEL-V-Ø où l'interprétation temporelle est réalisée par la déduction des propriétés aspectuelles (aspect optique et/ou *Aktionsart*) en combinaison avec une structure pragmatique de raisonnement/discours (Mucha 2013).

vii Autres dispositifs pour l'expression d'interprétations aspectuelles

Étant donné qu'en *anindilyakwa* l'opposition entre un point de vue perfectif inflexionnel et un point de vue aspectuel imperfectif n'est pas des plus fortes, d'autres dispositifs aspectuels, non inflexionnels, sont habituellement mis en œuvre pour transmettre efficacement les nuances aspectuelles. On relèvera en particulier la réduplication verbale, l'allongement prosodique,

l'interaction des particules aspectuelles et des adjectifs avec l'*Aktionsart*, et le marquage du temps/aspect flexionnel.

La reduplication est un processus dérivationnel susceptible d'affecter aussi bien les verbes que les noms. Elle s'utilise principalement pour exprimer l'intensification, la quantité et la pluralité, auxquelles s'ajoute, dans le cas des verbes, la modification immédiate de l'*Aktionsart*. La reduplication verbale impose une interprétation pluractionnelle, mais n'est attestée que pour les verbes atéliques centrés sur l'étape « centrale » d'une situation atélique et les verbes téliques réductibles.

Il existe deux types d'allongement prosodique en *anindilyakwa*. En tant que dispositif aspectuel (modificateur de l'*Aktionsart*), il est limité aux prédicats atéliques (le plus souvent des verbes de mouvement) où les étapes internes de la situation sont concentrées et l'accent est mis sur la progression de la situation ; elle ne concerne alors que la syllabe finale du verbe ou du groupe verbal. En tant que marqueur du discours, le rôle de l'allongement prosodique est de focaliser le sujet, sans aucune restriction quant à la partie du discours (verbe ou autre) ou la position syllabique affectées ; il peut se produire en position initiale, secondaire, avant-dernière ou dernière.

Les particules et les adjectifs aspectuels peuvent eux aussi être impliqués dans la modification de l'aspect, en particulier les particules *ngəwa* 'continuer' et *ngarningka* 'encore une fois, aussi', et l'adjectif *ərribərriba* 'persévérer'.

La particule *ngəwa* 'continuer' peut aboutir à une modification aspectuelle de niveau nucléaire (avec portée sur le groupe verbal) ou bien périphérique (avec portée sur la proposition dans son ensemble). La modification aspectuelle de niveau nucléaire impliquant *ngəwa* se produit lorsque la particule est située à la périphérie immédiate du groupe verbal (gauche ou droite), et s'étend sur le verbe. Elle nécessite un prédicat atélique, auquel la particule impose une interprétation aspectuelle imperfective. Au niveau périphérique, la particule *ngəwa* modifie la portée de la proposition entière, à condition d'occuper la dernière position de la proposition ; elle indique alors la résiliation ou l'achèvement de la situation.

La particule *ngarningka* peut modifier aussi bien un groupe verbal qu'un groupe nominal. Quand il modifie un groupe verbal, *ngarningka* indique la répétition d'un événement (qui a déjà été achevé, ou bien a été interrompu ou terminé) ; quand il modifie un groupe nominal, il signale l'existence d'un référent supplémentaire, du même type que celui déjà mentionné.

L'adjectif *ərribərriba*, enfin, se produit avec des prédicats atéliques et impose une interprétation aspectuelle imperfective. Cependant, contrairement à la particule aspectuelle

ngəwa, *ərribərriba* ‘persévérer’ se produit seulement avec des interprétations imperfectives générales (identification d’un événement en cours), tandis que *ngəwa* peut se produire aussi bien avec des interprétations imperfectives générales (événement en cours) qu’habituelles (événement coutumier).

viii Types de propositions, marquage clitique et relations aspectuo-temporelles

Se rattachant prosodiquement à un mot qui précède, les clitiqes relèvent logiquement du complexe verbal et participent aussi bien au système de l'inflexion du temps qu'à l'expression des propriétés aspectuo-temporelles. Cela est particulièrement perceptible au niveau macrosyntaxique, où les clitiqes sont impliquées dans l'expression de relations temporelles différentes entre des propositions dépendantes et indépendantes.

Les clitiqes se produisent fréquemment avec des nominaux, indiquant souvent des rôles sémantiques relatifs au mouvement et à l'emplacement physique, mais ils peuvent aussi s'attacher à d'autres parties du discours ; dans ce dernier cas, plutôt que d'exprimer des rôles spatiaux (mouvement, emplacement physique), ils expriment des propriétés temporelles. Ils peuvent alors s'attacher à des adverbes, des démonstratifs et des verbes entièrement infléchis.

Les verbes munis de clitiqes se retrouvent généralement dans des propositions dépendantes (subordonnées relatives et *t-complementising*), mais certains clitiqes spatio-temporels et modaux peuvent également s'attacher à des verbes finis entièrement infléchis dans les principales, où ils interviennent au niveau de l'interprétation temporelle ou modale.

Les clitiqes de cas « primaires » (c.-à-d. ABLATIF, ALLATIF, LOCATIF, SOURCE) peuvent se souder à un verbe fini entièrement infléchi dans une proposition dépendante, indiquant une relation temporelle ou logique entre la principale et la subordonnée. Alors que les clitiqes spatio-temporels et modaux peuvent s'attacher aussi bien à des verbes principaux que subordonnés, les clitiqes de cas « primaires » sont limités aux subordonnées n'ayant pas la possibilité de se produire indépendamment.

Les clitiqes spatio-temporels (QUANTIFICATIONNEL =*wiya* et PERLATIF =*hangwiya*) se comportent à bien des égards comme les clitiqes « primaires ». Ils s'attachent soit à des nominaux afin d'exprimer des informations spatiales ou quantificatives concernant l'argument, soit à des verbes finis infléchis dans des propositions subordonnées, où ils expriment une relation temporelle par rapport à la clause matricielle (au même titre que les clitiqes de cas « primaires »). Cependant, des clitiqes spatio-temporels peuvent également s'ajouter à des verbes finis infléchis dans des propositions indépendantes, où elles modifient les propriétés

aspectuo-temporelles de la situation. Les clitiques spatio-temporels se produisent également avec une gamme beaucoup plus large d'adverbes et de démonstratifs temporels (en particulier le QUANTIFICATIONNEL =*wiya*).

ix Marquage modal de l'inflexion, négation et l'interaction entre les paramètres aspectuo-temporels et modaux

En *anindilyakwa*, comme dans un grand nombre d'autres langues du monde, la modalité est exprimée par différents moyens lexicaux et grammaticaux. Cependant, le principal moyen du marquage modal en *anindilyakwa* est le marquage par inflexion sur le verbe, réalisé à l'aide de la combinaison du préfixe portemanteau et des paradigmes du suffixe TAM.

Le principal moyen d'expression modale en *anindilyakwa* (et dans de nombreuses langues *non pama-nyungan*) consiste à combiner des informations provenant de deux, voire trois, positions morphologiques discontinues dans le gabarit verbal. La combinaison d'une des trois séries de préfixes portemanteaux (RÉEL, IRRÉEL, DÉONTIQUE) avec l'un des quatre suffixes TAM (NON-PASSÉ, PASSÉ, Ø, POTENTIEL) permet d'exprimer une variété d'interprétations temporelles et modales.

Une distinction importante au sein du système modal d'inflexion est celle entre le marquage d'inflexion RÉEL-V-N.PASSÉ/PASSÉ/Ø et IRRÉEL-V-N.PASSÉ/PASSÉ/Ø/POT. Cette distinction est à la base des distinctions modales factuelles et non factuelles (et, par conséquent, de la distinction entre les situations se produisant avant, pendant et après le point de référence (c.-à-d. non futur et futur)). Le marquage par inflexion RÉEL-V-N.PASSÉ/PASSÉ/Ø s'utilise principalement pour exprimer des situations qui se produisent ou se sont produites, tandis que le marquage par inflexion IRRÉEL-V-N.PASSÉ/PASSÉ/Ø/POT couvre un plus grand nombre d'interprétations modales, c'est-à-dire épistémiques, déontiques et dynamiques.

Le marquage IRRÉEL-V-PASSÉ/N.PASSÉ/Ø/POT, en particulier, se prête à un large éventail d'interprétations modales. Il est impliqué dans les références temporelles futures et dans un ensemble complexe d'interprétations modales (épistémiques, déontiques et dynamiques), incluant à la fois les possibilités ouvertes (événements futurs potentiels) et fermées (par exemple contrefactuelles), et est compatible avec les interprétations de nécessité et de possibilité, étant sous-spécifiée pour la force modale. De plus, le préfixe porte-manteau IRRÉEL est également obligatoire pour le marquage des situations passées négatives.

Parmi les multiples interprétations de la série de préfixes portemanteau IRRÉEL, deux grands groupes de significations sémantiques sautent aux yeux : les interprétations de

possibilités ouvertes (celles qui reposent sur le marquage non passé) et les interprétations de forclusion (celles qui reposent sur le marquage passé).

La troisième série de préfixes portemanteau, les DÉONTIQUES, en combinaison avec un marqueur NON-PASSÉ/Ø/POTENTIEL du TAM, indique une force illocutoire directive, allant souvent de pair avec des interprétations modales déontiques.

Parmi les suffixes TAM (NON-PASSÉ, PASSÉ, Ø, POTENTIEL) qui se combinent avec les préfixes portemanteau afin d'exprimer les interprétations modales, le suffixe POTENTIEL a une distribution limitée, se produisant seulement en combinaison avec les préfixes porte-manteaux IRRÉEL et DÉONTIQUE (c.-à-d. non autorisés avec des préfixes porte-manteaux de type RÉEL). Alors que les verbes infléchis IRRÉEL/DÉONTIQUE-V-N.PASSÉ/Ø sont sous-estimés pour leur force modale, le marquage inflexionnel IRRÉEL/DÉONTIQUE-V-POT limite sa force modale à la proposition exprimée, où une interprétation « plus faible que nécessaire » du mode est exprimée.

x Interaction du TAM complexe : conditionnels, intentionnels, appréhensionnels

En exprimant les interprétations modales, le système TAM flexionnel interagit avec les particules modales, les clitiques, les adjectifs cognitifs prédictifs, les verbes volitifs et les structures conditionnelles.

Les structures conditionnelles de l'*anindilyakwa* comportent deux propositions, l'une antécédente (une subordonnée généralement munie du clitique =*manja* LOCATIF), l'autre conséquente (une clause principale). En *anindilyakwa*, toutes les propositions antérieures et subséquentes comportent deux prédicats verbaux infléchis par le marquage IRRÉEL-V-PASSE/N.PASSÉ/Ø/POT. Ces structures conditionnelles s'utilisent pour exprimer des interprétations comprenant à la fois les possibilités futures et les possibilités exclues (c.-à-d. impliquant des mondes inaccessibles).

Les conditionnels dont les prédicats verbaux prennent IRRÉEL-V-PASSÉ indiquent toujours que l'ancrage temporel de la relation d'accessibilité se produit avant le temps d'énonciation, tandis que les conditionnels dont les prédicats verbaux prennent IRRÉEL-V-N.PASSÉ/POT/Ø indiquent toujours que l'ancrage temporel de la relation d'accessibilité a lieu après le temps d'énonciation.

Pour exprimer l'intentionnalité et la volonté en *anindilyakwa*, il y a deux stratégies principales : la construction IRRÉEL-V-PASSÉ/N.PASSÉ/Ø=PURP, dont le sens central implique l'intentionnalité, et le verbe *-ngiyendhe-* 'vouloir', dont le sens central implique la volonté.

Cependant, la construction IRRÉEL-V-PASSÉ/N.PASSÉ/Ø/POT=PURP, en particulier, est plus complexe que cela, exprimant une gamme d'interprétations connexes, incluant des interprétations frustratives, proximales et évitées de justesse.

Le clitique =*yedha* PURP se produit le plus souvent dans les subordonnées, où il s'attache à des noms et à des verbes, afin d'exprimer un but par rapport au verbe principal. Bien que le PURPOSIF se produise le plus souvent dans les subordonnées, il peut aussi s'attacher à des prédicats verbaux principaux, où les verbes infléchis IRRÉEL-V-N.PASSÉ=PURP expriment l'intention et les verbes infléchis IRRÉEL-V-PASSÉ=PURP les intentions non réalisées et les tentatives ratées. Dans toutes les interprétations impliquant le marquage IRRÉEL-V-PASSÉ/N.PASSÉ/Ø=PURP dans les principales (c.-à-d. dans les contextes passés et non passés), l'intentionnalité est au cœur de l'interprétation. Le regroupement des interprétations sémantiques exprimables par cette construction (impliquant des interprétations d'intention future et des interprétations proximatives « sur le point de » dans des situations non passées, et des interprétations frustratives, proximatives « sur le point de » et évitées de justesse « à près de » dans des situations passées) a été observé dans de nombreuses langues du monde (voir Kuteva 1998), et peut être expliqué par une chaîne évolutive du type « volitifs > intentionnels > contrefactuels > étroitement évités ».

Le verbe *-ngiyendhe-* 'vouloir' a une signification primaire volitive, mais peut également, dans des contextes passés, indiquer des désirs non réalisés, et, dans des contextes passés et non passés, des notions de désir et d'espoir, ainsi que l'intentionnalité. Cela montre les premières étapes du chemin de développement qui a été examiné par rapport à la construction IRRÉEL-V-PASSÉ/N.PASSÉ/Ø/POT=PURP, où les volitifs se rapportent à un élément concret et se développent pour exprimer une intention.

Les constructions appréhensives de l'*anindilyakwa* impliquent le clitique ÉVITATIF =*maka*. Les fonctions primaires associées au clitique =*maka* sont des fonctions appréhensionnelles-épistémiques (cf. Lichtenberk 1995), associées à la description de situations indésirables qui ont le potentiel de se produire à l'avenir. En plus de ces fonctions typiques d'appréhension, l'ÉVITATIF peut se produire avec un marquage d'inflexion passé afin d'exprimer une situation jugée optimale par l'orateur, mais qui ne se produit pas dans le monde réel.

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