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A grammatical description of Marri Ngarr

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Abstract

This thesis presents the first comprehensive grammatical description of Marri Ngarr, a critically endangered Australian indigenous language traditionally spoken in the Daly River region of the Northern Territory. Prior to this research, description of Marri Ngarr was limited to descriptions of only a few aspects of the grammar. The research in this thesis documents and analyses many aspects in the grammar for the first time and extends previous research by covering other topics in more depth. A substantial part of the project involved the collation, transcription and interlinearisation of Marri Ngarr recordings which were made by various researchers over the last 50 years, as well as making this information available through PARADISEC. Some of the transcription work was undertaken on field trips to the Daly River region, where I worked collaboratively with Marri Ngarr speakers to transcribe and translate Marri Ngarr stories from these recordings.

Marri Ngarr is a non-Pama-Nyungan language of the Western Daly family. It is a head-marking language with highly complex verbal morphology and as such can be considered polysynthetic. The thesis presents many aspects of the grammar which will be of interest to Australianists and linguists interested in morphologically complex languages. I outline just a few properties of the grammar here. The consonant inventory of Marri Ngarr is unusual in the Australian context in having three series of obstruents, with contrasting stops at five places of articulation, a bilabial and apical voicing contrast and four phonemic fricatives. Marri Ngarr is also unusual in Australian language terms in exhibiting onset clusters.

In the Noun Phrase we find a rich nominal classification system which categorises entities into one of 13 semantic categories. The system contains both bound and free classifiers and this mixed system shows some evidence of grammaticalisation. A functional NP word order analysis, as well as case-marking characteristics and a lack of true discontinuity in nominal expressions provides strong evidence for NP constituency.

The verb is a central element of the clause and can encode several types of clausal information. Marri Ngarr frequently uses a type of complex verbal predicate where two predicative elements contribute predicate semantics and argument structure information to the same verb. These two elements combine in various, but structured ways to render verbs of differing transitivity values and thematic roles. The verb template contains 12 slots for encoding a variety of inflectional and derivational information. For some types of information such as argument number and TAM, distributed exponence is observed, where meaning can only be understood by considering particular combinations of morphology interspersed through the verb, rather than deriving meaning through consideration of single morphological elements.

Concerning the wider clause, word order is flexible in Marri Ngarr: it does not determine grammatical function. However, a case study analysis reveals that it is used for pragmatic purposes such as reference-tracking and clarification.

In documenting and analysing these and many more aspects of the grammar for the first time, this thesis makes a significant contribution to our knowledge of the Marri Ngarr language and through the collection and transcription of old recordings it has made the language more accessible for people in the future.

Declaration

This is to certify that

- (i) this thesis comprises only my original work towards the Doctor of Philosophy;
- (ii) due acknowledgement has been made in the text to all other material used;
- (iii) the thesis is fewer than 100,000 words in length, exclusive of tables, maps, bibliographies and appendices.

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Abbreviations

1	first person
2	second person
3	third person
ADJ	adjunct
ANAPH	anaphoric
ANIM	animal/meat nominal classifier
APPL	applicative
APPR	apprehensive
AUG	augmented number
CHILD	child nominal classifier
CONJ	conjunction
DAT	dative
DEM	demonstrative
DEM.1	demonstrative - first person
DEM.2	demonstrative - second person
DEM.3	distal demonstrative
DEON	deontic
DU	dual
EXCL	exclusive
F	feminine (pronoun/pronominal)
FEM	feminine nominal classifier
FIRE	fire nominal classifier
FUT	future tense
INCH	inchoative
INCL	inclusive

INSTR	instrumental
INTR	intransitive
IPFV	imperfective
IRR	irrealis
LANG	language nominal classifier
LOC	locative
M	masculine (pronoun/pronominal)
MAL	malefactive
MASC	masculine
MIN	minimal number
NEG	negator
NSG	non-singular
O	object
OBL	oblique
OBLIG	obligatory
PFV	perfective
PL	plural
PLACE	place/time nominal classifier
PLANT	edible plant nominal classifier
PRO	pronoun
PROX	proximal adverb
PST	past tense
R	realis
RECIP	reciprocal
REDUP	reduplication
REFL	reflexive
REP	repeat
SEQ	sequencer
SG	singular
SPEAR	spear nominal classifier
SSPEAR	sspear nominal classifier
SUBJ	subject

THING	thing nominal classifier
TOP	topic
TR	transitive
(U)AUG	(unit) augmented number
WATER	water nominal classifier
WEAP	weapon nominal classifier
WH	interrogative

Chapter 1

Introduction

This thesis presents the first comprehensive grammatical description of the Australian indigenous language Marri Ngarr. Marri Ngarr is a non-Pama-Nyungan language of the Daly River region and forms part of the Western Daly language family. It is a critically endangered language and until this thesis very little of the grammar had been documented.

The Marri Ngarr language is traditionally spoken on Marri Ngarr country, which extends along the floodplains of the Moyle River in the north western part of the Northern Territory. Marri Ngarr country is predominantly inland though it includes a small coastal area. It is bordered by Murrinhpatha country to the southwest, Ngan'gitjemerri country to the east and Marrithiyel, Marri Tjevin and Marri Dan countries to the north. The majority of the river mouth region is traditionally Magati Ke country Nambatu et al. 2009, pp. 2–3. The communities of Nama, Wudipuli, Kubiyirr, Mardingarr and Kulinmerr are all situated on Marri Ngarr country (Nambatu et al. 2009, pp. 2–3). In 1935, a Roman Catholic mission was established on Murrinhpatha country, which drew people in from around the region, and from this point onwards Murrinhpatha became the dominant language in the region. Currently, Murrinhpatha is spoken by 2500-3000 people (Green and Nordlinger 2022) and other traditional languages of the region are no longer being passed on to children.

The Marri Ngarr people living in the Daly River region generally speak Murrinhpatha as a first language now and the Marri Ngarr language no longer appears to be in daily use. According to Ford (2010b, p. 3) there were less than ten native speakers of Marri Ngarr remaining as of 2010, all of whom were over 50 years old. In my own fieldwork experience in Wadeye, I met around 10 people who self-identified as being speakers of Marri Ngarr. These speakers had varying levels of fluency in the language and I was fortunate enough to work with six speakers primarily on story transcription and translation. I have also been informed of around four other people who can speak the language. This low number of speakers highlights the timeliness of the current thesis: documentation of endangered languages such as Marri Ngarr is critical to at least preserve knowledge of these languages which are no longer being passed on to children, with this documentation then also being available for use in any future revitalisation efforts.

Around 20 years ago, Marri Ngarr people were concerned about the vitality of their language and requested that it be documented (Ford and Klesch 2003, p. 28). Previous

work on the grammar of Marri Ngarr (outlined in §1.3) has been important for beginning to understand the structure of the language, in particular Green (1993a) which is an analysis of the classifier stem system, Green (1993b) which documents other bound pronominal markers and free pronouns, and Preston (2012) which provides an analysis of reflexive and reciprocal constructions and also includes an overview of verbal morphology. However, despite this earlier work many aspects of the grammar have until now been left undocumented. This thesis presents the first large scale work documenting the grammar of Marri Ngarr. The corpus I used for my analysis is comprised of recordings made by a number of researchers, primarily over the last 50 years, and consists mostly of grammatical elicitations, but also wordlists and texts. The corpus is described in more detail in §1.4. My project began prior to my analysis of the language with the building of this corpus: I collated, transcribed and interlinearised around 50 hours of recordings of Marri Ngarr. This constitutes a major contribution to the field as without this work, these recordings would have remained inaccessible. My analysis of the language based on this corpus builds on the previous research mentioned above by covering a much broader range of topics in the grammar; therefore presenting descriptions and analysis of many aspects of the grammar for the first time, making a significant contribution to our knowledge of the grammar of Marri Ngarr. It also delves into other topics in more depth than previous work. Whilst this is the case, the thesis unavoidably presents a partial description of the language due to only limited opportunities for my own fieldwork and a necessary reliance on pre-existing language recordings and written sources (see discussion in §1.4.1).

I hope that this thesis will be received by Marri Ngarr people as a valuable record of their language, filled with hundreds of examples which give us a glimpse into the richness of this language. For Marri Ngarr people interested in the revitalisation of their language, I hope that this thesis can be a starting point, serving as a reference and a document from which teaching resources can be created. This thesis is also a significant step forward in understanding the characteristics of the languages of the Daly region. With the exceptions of Murrinhpatha and Ngan'gitjemerri, Daly languages are currently either spoken by no more than a handful of speakers or no longer have any living speakers (Green and Nordlinger 2022). While a substantial amount of linguistic research has been undertaken on Murrinhpatha, Marrithiyel, Ngan'gitjemerri and Emmi, the remaining Daly languages are generally underdescribed, with short sketch grammars by Tryon (1974) being the only form of published documentation for many of these languages. Partly due to this lack of description of many of the Daly languages, it has been difficult to make genetic connections between these languages. As discussed below in §1.1 it is currently agreed that there are five Daly language families; however a common proto language linking all five families is as yet unestablished. This thesis adds to our knowledge of the characteristics of the languages of this region, and will be useful for comparative analysis to further our understanding of the genetic relationships between languages of the Daly region. In turn, this may aid in our understanding of the overall picture of the genetic relationships between Australian language families. Given the endangered status of nearly all of the Daly languages, there is a sense of urgency regarding this work.

A language documentation project such as this is also important in a broader cross-linguistic sense. Languages of the world can differ dramatically from one another in terms of their structure and can encode concepts in a multitude of ways. In these ways,

each individual language is unique and contains a vast amount of linguistic information important for building a better picture of the boundaries of natural language. A grammar of a language from an under-described region of the world will, therefore, contribute to the advancement of the field of linguistics by furthering our knowledge of possible structures and conceptual categorization in the world’s languages.

1.1 Daly language families

As described in Nordlinger (2017, pp. 783–4), the twenty-two language varieties¹ of the Daly region can be organised into five language families: the Northern, Southern, Western, Eastern and Anson Bay families, depicted in Figure 1.1 below.

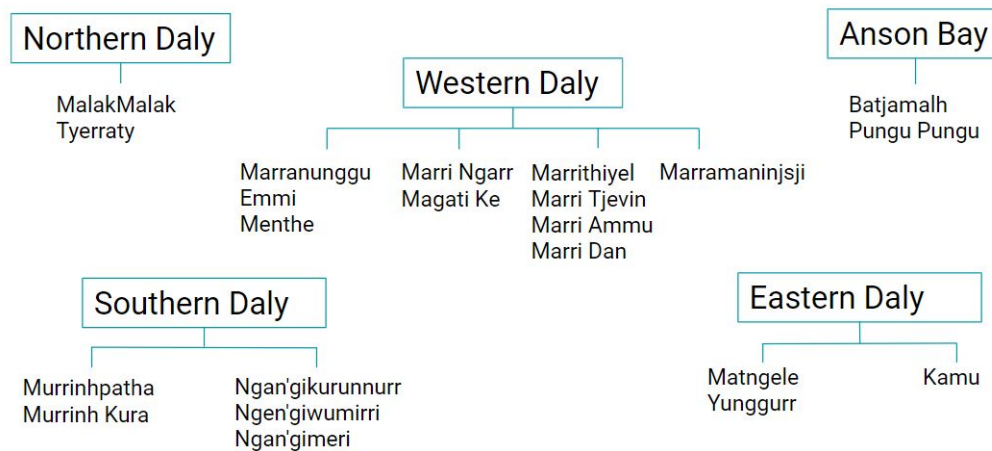


Figure 1.1: The languages of the Daly region
(based on Nordlinger and Green 2022)

These families are considered to share areal features but a common parent language for all five families is yet to be established and as Dixon (2002, p. 676) notes, these shared features can also be found in some surrounding languages from non-Daly families. Areal features common to all languages of the Daly region include a high degree of morphological complexity on the verb, bipartite verbs, pronominal argument marking on the verb, noun incorporation, serialised verbs which function to mark imperfective aspect, and flexible word order (Dixon 2002, pp. 677–8; Nordlinger 2017, p. 784). However, each language differs in how certain features are realised. For instance: the order of the two verbal elements which constitute the bipartite verb may differ between languages and the two elements may either form part of the same word or be present as separate phonological words (Nordlinger 2017, pp. 786–7), nominal incorporation may be restricted to body parts or may permit a wider range of nominals and its position in the verbal word may differ, and languages may use different types of verbal elements in a serialised verb construction (Nordlinger 2017, pp. 795–8).

1. The term ‘variety’ here includes both ‘languages’ and ‘dialects’. In the diagram, languages appear as separate branches (there are ten in total) while dialects appear on the same branch (Nordlinger 2017, p. 783)

1.2 Marri Ngarr typological features

This section briefly introduces and exemplifies some typological features of Marri Ngarr which will be discussed in more detail throughout the thesis. As we will see below, as well as in the ensuing chapters, Marri Ngarr is a head-marking language with highly complex verbal morphology, frequent use of complex predicates, and exhibits all the features commonly considered central to polysynthesis: pronominal agreement marking on the verb, noun incorporation, and holophrasis (the capacity to encode all necessary information about the predicate and its arguments on the verb so that it can stand alone as a clause) (Evans and Sasse 2002, p. 3; M. C. Baker 1996, pp. 17–19; Fortescue, Mithun, and Evans 2017, pp. 1–2). Further characteristics of the verbal morphology commonly associated with polysynthesis such as applicatives and incorporation of adverbial elements are also features of the language. The vast array of morphology on the verb also exhibits distributed exponence (Carroll 2022) for some types of information: argument number and TAM morphology is interspersed through the verb and it is only through consideration of all relevant markers that meaning can be determined. Semantic classifier systems exist in both the nominal and verbal domains, categorising entities and events via rich classification systems. Other typological features of interest in the nominal domain include frequent NP omission, strict NP word order and limited case-marking. At a clausal level, word order is flexible, and does not play a role in determining grammatical relations.

Verbs in Marri Ngarr are often a type of complex predicate, here termed a ‘bipartite verb’. This type of complex predicate involves two predicative elements, a ‘classifier stem’ and a ‘lexical stem’. The classifier stem inflects for subject features, is formally distinguished for TAM, has a transitivity value and provides some semantic information about the event denoted by the verb, while the lexical stem is an uninflecting predicative element which provides argument structure information and verbal semantics. An example of a bipartite verb is given below in (1), where the GO classifier stem combines with the lexical stem /kiɟi/ ‘play’. Bipartite verbs are discussed in more detail in §5.1.

- (1) *gunmelkiɟi*
kunmel-kiɟi
 3PL.GO.R.IPFV-play
 ‘They are playing.’ (JJ: RN5-001-B)

Pronominal agreement marking on the verb is obligatory for core arguments and optional for oblique arguments and human adjuncts. Up to three participants can be encoded on a bipartite verb, as exemplified in (2).

- (2) *amuɟiparatɲinali* *niwiɲ* *ji* *jinni*
am-wudi-ɟarat-ɲinali *niwiɲ* *ji* *jin=ni*
 2SG.PIERCE.IRR-3DU.O-grab-1SG.ADJ 3DU.PRO DEM.3 1SG.PRO=DAT
 ‘You grab those two for me.’ (PT: IG3-022-B)

While pronominal agreement marking is often cited as one of the defining features of polysynthesis (Evans and Sasse 2002, p. 3; Fortescue, Mithun, and Evans 2017, p. 1), it is often not absolute in individual languages: realisation of pronominal markers can be affected by several factors, including person, animacy, grammatical relation, definiteness and specificity (Mithun 2017, pp. 31–8). This is true of Marri Ngarr, where pronominal agreement is commonly left unrealised due to animacy, person and grammatical relation restrictions. It is obligatorily marked for all subjects, while human objects must receive marking unless they are 3SG. For obliques, pronominal agreement marking is optional. Inanimate non-subjects are never observed being encoded pronominally in the corpus.² An overview of pronominal agreement marking in Marri Ngarr is set out in §3.2 and further details of the pronominal agreement system are provided in §5.6.

The fact that clausal arguments are marked via pronominal agreement and that an array of other verbal morphology providing various types of clausal information (detailed in chapters §5 - §8) can be marked on the verb means that holophrasis is a regular occurrence in Marri Ngarr. An example of holophrasis is given in (3).

- (3) pamudipundatɲinaliŋaja
 pam-wudi-pundat-ɲinali-ŋa=ja
 3NSG.PIERCE.R.PFV-3DU.O-take-1SG.ADJ-MAL=PST
 ‘They took those two kids away from me.’ (PT: IG3-022-B)

Marri Ngarr also permits noun incorporation on the verb, another feature often considered definitional for polysynthesis (M. C. Baker 1996, pp. 17 – 19; Fortescue, Mithun, and Evans 2017, p. 3). In Marri Ngarr it is reserved for only a subset of nouns: those denoting body parts (a subset of nouns commonly found to incorporate (Evans 1996, pp. 65–6) and the primary type of nominal incorporate in the Daly languages (Nordlinger 2017, p. 796)). Example (4a) shows incorporation of the object (technically the object is a construction involving the body part as possessum and a possessor encoded via OBJECT-marking). Non-body part nouns on the other hand cannot be incorporated and are instead realised via NPs, as exemplified in (4b). Body part noun incorporation is frequently observed in the corpus, and is the default method for encoding body parts which form core arguments. A detailed discussion of body part incorporation is found in §8.1.

- (4) a. kuriŋmenpitni
 kur-ɲ-men-pit=ni
 3SG.HANDS.IRR-1SG.O-arm-wash=FUT
 ‘He’s going to wash my arm.’ (HK: 197207-MW-M02004362B)
- b. ɲa kurpitni ja ipezi
 ɲa kur-pit=ni je= jipezi
 3SG.F.PRO 3SG.HANDS.IRR-wash=FUT CHILD= little
 ‘She’s going to wash the baby.’ (PT: IG3-034-B)

2. The only exception to this statement concerns reflexive constructions formed with the CAUSE classifier stem (§5.4.3): in this environment inanimate referents can be marked pronominally.

Two other features often cited as features of polysynthetic languages, valence-changing morphology and incorporated adverbial elements, are present in Marri Ngarr, though they are not featured frequently in the grammar based on the available data. Two APPLICATIVE markers are used in the language to increase the valence of the verb, promoting a referent to object status. Characteristics of applicative constructions are explored further in §8.2. The example pair below shows an intransitive verb in (5a) while the inclusion of the APPLICATIVE marker /*mi-*/ in (5b) forms a transitive verb.

- (5) a. *naŋ ga caŋawura jeŋi*
naŋ =ka caŋa-wur=a jeŋi
 3SG.M.PRO =TOP 3SG.STAND.CMPLX.R.PFV-return=PST today
 ‘He came back today.’ (JoN: IG3-019-B: 34)
- b. *naŋji adimiwura*
naŋci adi-mi-wur=a
 THING 3SG.CAUSE.R.PFV-APPL-return=PST
 ‘She returned it.’ (JJ: RN5-001-A)

The marginal use of applicative constructions in the grammar may be related to the existence of another more productive valence-changing technique. Classifier stems encode transitivity information and as such the choice of classifier stem can affect verbal valence, as illustrated below, where in (6) the lexical stem /*dim*/ co-occurs with an INTRANSITIVE classifier stem and this combination results in an intransitive verb, while in (7) the same lexical stem co-occurs with a TRANSITIVE classifier stem which results in a transitive verb (see also §5.3.3 for further details).

- (6) *pandi kanidim βiŋi*
βandi kani-dim βiŋi
 sun 3SG.GO(INTR).R-disappear now
 ‘The sun is setting.’ (HK: 1972-MW-M02004365A)
- (7) *naŋ ji ŋaridima na pirek*
naŋ ji ŋari-dim=a na βirek
 3SG.M.PRO DEM.3 1SG.HANDS(TR).R.PFV-disappear=PST LOC ground
 ‘I buried it in the ground.’ (JN: IG3-012-B)

Adverbial incorporation is also observed in the grammar, though is limited to only one element: the temporal adverb /*βiŋi*/ which is shown incorporated into the verb in (8a). This element can also function as an independent adverb (8b) (§3.1.7). All other adverbial information is encoded outside of the verb.

- (8) a. η ata η ingin $\dot{\delta}$ atpinika η
 η ata η inkin- $\dot{\tau}$ at- β iji= η ani
house 1SG.PUT.R.IPFV-put.down-**now**=1SG.SIT.R.IPFV
‘I’m building a house.’ (PT: IG3-024-B)
- b. jin η ata η ingin $\dot{\delta}$ atka η pi η i
jin η ata η inkin- $\dot{\tau}$ at= η ani β iji
1SG.PRO house 1SG.PUT.R.IPFV-put.down=1SG.SIT.R.IPFV **now**
‘I’m building a house.’ (PT: IG3-016-A)

Some types of information are expressed through a combination of markers which are distributed throughout the verb. This distributed exponence means that overall meaning is conveyed through these combinations of markers rather than there being a one-to-one mapping between form and meaning. An example of this is given below in (9), where subject number information is conveyed through the combination of three separate markers on the verb. NON-SINGULAR number is expressed through the classifier stem in slot one, and this is followed by the DUAL SUBJECT marker in slot 2, which specifies the subject as DUAL. DUAL SUBJECT-marking on the serial classifier also agrees with the number features of the subject, and finally an AUGMENTED number marker occurs as the last element of the verb. This combination of number markers results in a paucal interpretation (specified as ‘three’ in the NP). Argument number marking including discussion of distributed exponence is the topic of chapter 6.

- (9) kuli η ijirgawijnim ma animbir
kul- η ki-cur= η awu- η =nim ma= animbir
3NSG.BUMP.R.IPFV-DU.S-cut.PL=3.SIT.R.IPFV-DU.S.INTR=AUG MASC= three
‘Three men are chopping wood.’ (ET: 20150627-JM-ET-03)

Semantic classification systems exist for both nouns and verbs in Marri Ngarr. In the nominal domain there are 13 classifiers which divide up the world of entities into semantic categories including different types of human categories, categories focusing on the natural world and categories for types of instruments such as spears and weapons used for hunting. Nominals can be variably classified as shown in the examples below. The nominal / $\dot{\tau}$ awur/ is generally used as a generic for ‘tree’. When it co-occurs with the THING classifier, which is used to categorise trees and various other inanimate entities which don’t fit into other nominal categories, it denotes ‘tree’. In contrast when / $\dot{\tau}$ awur/ is classified by the classifier for weapons, it denotes a stick used as a weapon, and when it co-occurs with the classifier for things associated with fire, it denotes ‘firewood’. The nominal classification system is examined in §4.2.

/ η anci $\dot{\tau}$ awur/	THING tree	‘tree’
/je $\dot{\tau}$ i $\dot{\tau}$ awur/	WEAP tree	‘stick (used as weapon)’
/ce η ci $\dot{\tau}$ awur/	fire tree	‘firewood’

The verbal classification system (explored in §5.4) contains 21 classifier stems with semantics related to stance, motion, speech (categories which are common in Australian languages with verbal classification systems (McGregor 2002, p. 104)) and various other semantic categories, including six classifier stems which focus on the instrument used to carry out the event. An example of this instrumental focus is given below. The SWING classifier stem categorises events in which a long, thin instrument is used, which makes contact with its face or edge. On the other hand the BUMP classifier stem categorises events which use rounded instruments which make contact with a relatively large surface area. In (10) we see SWING being used to classify an event where an open hand, which forms a flat shape, makes contact with its face, while in (11) the hand as instrument forms a fist, a rounded shape.³

- (10) pundi ηarin ηjɲgurpa ηawak
 pundi =ηarin ηjɲ-kurp=a ηawak
 hand =INSTR 1SG.SWING.R.PFV-hit=PST mosquito

‘I hit that mosquito with a (flat) hand.’ (JoN: IG3-035-A)

- (11) niwɲj ma ji pulunungurpa jeɲi
 niwɲj ma= ji puli-ni-η-kurp=a jeɲi
 3DU.PRO MASC= DEM.3 3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1SG.O-hit=PST WEAP
 pundi
 pundi
 hand

‘Those two punched me.’ (PT: IG3-038-B)

NP omission is common in Marri Ngarr (as demonstrated in the example of holophrasis in (3) above): as argument information is generally encoded via pronominal agreement marking on the verb, NPs are often unnecessary. When NPs are expressed, they are often minimal, often comprised of no more than three elements. NPs demonstrate internal structure: despite some variation in the position of parts of speech, strict word order is observed under a functional analysis. In (12) below we see an NP containing the numeral /ηjɲci/ ‘one’ in the modifier slot immediately following the head /wacən/ ‘dog’, while the demonstrative follows the numeral in the determiner slot. In contrast in (13) a different numeral /cicuk/ occurs in the modifier slot to modify the head expressed by the MASCULINE classifier, and in this example /ηjɲci/ is positioned in the determiner slot. Issues of word order and constituency in the NP are examined in §4.1.

- (12) wacən ji kumuɲa wacən ηjɲji ji
 wacən ji kumun-ɲa [wacən ηjɲci ji]
 dog DEM.3 3SG.PIERCE.R.IPFV-smell dog one DEM.3

‘That dog can smell that other dog.’ (PT: IG3-039-A)

3. The use of the symbol ‘>’ in the gloss (U)AUG.S>MIN.O in example (11) indicates that as well as encoding a minimal OBJECT/OBLIQUE number value, this marker also cross-references the SUBJECT as (UNIT) AUGMENTED. This marker is discussed in detail in §6.1.2.

- (13) **ma** **ɟicuk** **ŋjɟi** **kawɟɟibut**
 [ma= **cicuk** **ŋjɟi**] **kawu-ɟ-jibut**
 MASC= two **one** 3.SIT.R-DU.S.INTR-SWIM

‘There are two blokes swimming (in the creek).’

(HK: 1972-MW-M02004364A)

Case-marking provides evidence of NP constituency, with its position consistently marking the right-edge of the NP. However, case-marking is used infrequently in Marri Ngarr and only rarely marks grammatical relations. An example of DATIVE case-marking is given in (14). See further details on case-marking in §4.6.

- (14) **magit** **kaɟi** **mijini**
 mayit **kaɟi** [miji=ni]
 hungry 1SG.SIT.R PLANT=DAT

‘I’m hungry for vegetables.’

(HK: 1972-MW-M02004364B)

In contrast to the strict word ordering in the NP, clausal word order is flexible and plays no role in determining grammatical function (which is primarily the domain of the pronominal marking system as shown above in (2)). The examples below illustrate this with both subject (15) and object NPs (16) being able to appear in the same pre-verbal position. Clausal word order is discussed in §9.1.

- (15) **niwɟɟ** **ji** **puliŋgimudija**
niwɟɟ **ji** **puli-ŋki-mudi=ja**
 3DU.PRO DEM.3 3NSG.BUMP.R.PFV-DU.S-see=PST

‘Those two saw him.’

(PT: IG3-039-A)

- (16) **niwɟɟ** **ma** **ji** **ɟuliwudimudija**
niwɟɟ **ma=** **ji** **ɟuli-widi-mudi=ja**
 3DU.PRO MASC= DEM.3 1SG.BUMP.R.PFV-3DU.O-see=PST

‘I saw those two fellas.’

(JoN: IG3-027-A)

1.3 Previous linguistic research

Marri Ngarr belongs to the Western Daly family and is considered to be a dialect with Magati Ke (Green and Nordlinger 2022). Based on cognate densities reported in Tryon (1974, p. xiv) (which doesn’t document Magati Ke), Marri Ngarr is most closely related to Marri Amu (70%) and its sister dialects Marrithiyel (68%), Marri Tjevin (68%) and Marri

Dan (67%). Other Western Daly languages are more distant in terms of cognate densities: Marramaninjsji (54%), Marranunggu (39%) and Emmi (35%). Some of the languages of the Western Daly family have been subjects of detailed grammatical descriptions, namely a grammar of Marranunggu (Tryon 1970a), a grammar of Emmi (Ford 1998; Ford 2011) and a PhD thesis on Marrithiyel (Green 1989). Marrithiyel is, therefore, the best documented closely related language to Marri Ngarr.

The following list details all known published and unpublished resources on the Marri Ngarr language. W. J. Oates and L. F. Oates (1970, p. 32) reports that Hoddinott made recordings of Marri Ngarr and Stanner recorded a wordlist. Tryon (1968) collected a short wordlist and examined noun classes in Marri Ngarr as part of research on this topic across Daly languages (Tryon 1970b). Tryon (1974) conducted a comparative study of Daly languages including Marri Ngarr, in which he included a short sketch grammar and wordlist for each language. Tryon (1974, p. 120) notes that in some sources Marri Ngarr (Marengar) was listed as a variant name for Marranunggu and this confusion meant that at the time of writing, no other published material on Marri Ngarr had been uncovered (Tryon 1974, p. 120). Green (1993a) documents the forms of the classifier verb stems, while Green (1993b) documents the forms of the free personal pronouns and bound pronominal argument markers. Green (2005) provides some preliminary analysis of the phonology. Green's contribution to the current project is discussed in §1.4. There are some brief references to Marri Ngarr in Dixon (2002) and a journal article about songs in Marri Ngarr provides a five page sketch grammar in the appendix (Ford 2005). Traditional stories have been produced through the Wadeye Endangered Languages Project and published by *Batchelor Institute Press*. An extensive ethnobiology, (Nambatu et al. 2009), details names of plants and animals in Marri Ngarr and Magati Ke as well as knowledge of their uses. Ford (2010b) is a Marri Ngarr and Magati Ke learner's guide. Preston (2012) is an unpublished honours thesis with a focus on reflexives and reciprocals which also provides a sketch of the structure of the verb, and Nordlinger (2017) provides a survey of typological features related to polysynthesis in Daly languages including Marri Ngarr.

1.4 Data and methodology

As part of this project I collated ~65 hours of audio and video recordings of Marri Ngarr and transcribed and analysed ~50 hours of these recordings. A large portion of this audio was recorded by Ian Green, who worked with speakers of Marri Ngarr in the Daly River region for several months during 1989 - 1993, recording ~30 hours of linguistic elicitation of Marri Ngarr (including material with phonological, lexical and grammatical foci) with three speakers. Accompanying the recordings he also wrote 485 pages of field notes. Green documented the forms of the classifier stem system in Green (1993a) as well as the forms of the personal pronouns, and non-subject pronominal agreement markers in Green (1993b). Greens's recordings, field notes and documentation of classifier stem and pronominal systems have been invaluable for the present research project and I have used these analyses as a starting point for my own. In addition to Green's recordings, I also have access to one hour of Marri Ngarr speech recorded by Darryl Tryon with three speakers in 1967 - 69, ~20 hours of Marri Ngarr (five speakers) recorded by Michael Walsh in 1972 - 74, one hour recorded by Ken Hale with one speaker in 1976, ~4 hours of video and audio recordings of several Marri Ngarr speakers recorded by Mark Cro-

combe through the Wadeye Aboriginal Language Centre between 2000 and 2011, eight hours of elicitation in Murrinhpatha and Marri Ngarr with two speakers recorded by Rachel Nordlinger in 2005, and ~1 hour with two speakers recorded by John Mansfield in 2015 and 2019. The majority of these recordings are grammatical elicitations, while other recordings contain texts and wordlists. I also refer to Marri Ngarr texts published through *Batchelor Institute Press* accessed through the *Centre for Australian Languages and Linguistics (CALL) Collection* as well as the Marri Ngarr and Magati Ke plants and animals book (Nambatu et al. 2009), which I used for many English translations of flora and fauna in thesis examples. I was also fortunate to have the opportunity to undertake field work trips to Wadeye on two occasions in 2019, working with six Marri Ngarr speakers on story transcription and translation. Further trips were unfortunately not possible due to COVID-19. Of the total ~65 hours of recordings of Marri Ngarr speech, I have transcribed ~50 hours in *ELAN* (2017) which comprise grammatical elicitations as well as some word lists and texts. These transcriptions were imported into *FieldWorks* (2021) (FLEx) and interlinearised and this FLEx data base forms the Marri Ngarr corpus I use to conduct my analysis in this project. An example of interlinearisation in FLEx is given in figure 1.2. Recordings made by Ian Green, Ken Hale, Rachel Nordlinger and John Mansfield, corresponding transcriptions and FLEx corpus are archived in *PARADISEC*. Recordings made by Michael Walsh and Darryl Tryon are archived in *AIATSIS*.

Text

Title Mar 20050521-MC-Curlew-Sugarglider
Eng

Info Baseline Gloss Analyze Tagging Print View Text Chart

103 **Word** kanjiza @n nuni jin wu
 Lex. Entries kanj = za nuni = ni₂ jin = wu
 Lex. Gloss 1SG.SIT.R AWAY 1SG.GO.IRR FUT 1SG.PRO EMPH
 Word Cat v pro verbprt

Free That's where I'm going to be
 Note RT
 Note

104 **Word** nijn ga kujar
 Lex. Entries nijn = ka ku jar₃
 Lex. Gloss 2SG.PRO TOP DEM.2 DEM
 Word Cat pro nomprt dem

Free You're (curlew) there (on the ground)
 Note RT

105 **Word** na ju piminkanjija
 Lex. Entries na₁ jukwi βam- p₃ -anjki = a
 Lex. Gloss LOC yes 3NSG.PIERCER.PFV DU.S.INTR RECIP PST
 Word Cat prep intej v

Free They asked each other if that's ok
 Note RT

106 **Word** warija jin ga na tawur narifin nunweleweleni
 Lex. Entries warija jin = ka na₁ tawur narifin nun-₁ wele- *wele = ni₂
 Lex. Gloss SEQ 1SG.PRO TOP LOC tree only/just 1sg.GO.IRR REDUP hang FUT
 Word Cat verbprt pro nomprt prep nom adv v

Free That's ok, I'm just going to climb in the trees
 Note RT

Figure 1.2: Interlinearising a Marri Ngarr text using FLEx

Of the 103 recordings which I transcribed and interlinearised in FLEx, ten are spontaneous speech (texts) while the remainder are elicited speech. In these elicitations the elicitor generally offered an utterance in English (or occasionally Kriol or Murrinhpatha)

and the speaker then gave the Marri Ngarr equivalent. As such the translation line in examples (discussed below) should be taken as an approximation of the Marri Ngarr utterance. Where I have deemed it appropriate based on my analysis of the language, I have sometimes adapted the translation. As for the translation line in texts, this has been given by Marri Ngarr speakers as an interpretation of the spontaneous speech of other Marri Ngarr speakers on recordings. Sometimes I was involved in discussions with the Marri Ngarr translators on the appropriate English construction to use.

The transcription and glossing method I use in the thesis are as follows.⁴ Each example utterance involves four tiers. The first tier is a broad phonetic transcription in IPA. Note that when I use examples from other Daly languages I convert them into IPA for ease of comparison, but I maintain the source transcription methods when using examples from other languages. I also maintain source glosses and translations for all examples from other languages, unless otherwise specified. The second is a phonemic tier in IPA where any processes such as place and voicing assimilation (17), vowel epenthesis and vowel harmony (18) are undone, and obstruents with variable realisation in terms of manner are standardised by assigning their phonemic symbol (19) (see §2.1.1 for obstruent analysis).

- (17) **Broad phonetic:** ɲa aɟɪŋgulila naŋɟi
Phonemic: ɲa adi-ŋ-yulil=a naŋci
Gloss: 3SG.F.PRO 3SG.CAUSE.R.PFV-3SG.F.OBL-enter=PST THING
 ɲani
 ɲani
 body

Translation: ‘She put on her dress.’ (HK: 1972-MW-M02004365A)

- (18) **Broad phonetic:** awu ɸamuŋanata
Phonemic: awu pam-ŋin-at=a
Gloss: ANIM 3NSG.PIERCE.R.PFV-1SG.OBL-pick.up=PST

Translation: ‘They got some meat for me.’ (JN: IG3-011-B)

- (19) **Broad phonetic:** jin wudi ti kaŋiwudak niŋ wudi gati
Phonemic: jin wudi ti kaŋi-yudak niŋ wudi ɣati
Gloss: 1SG.PRO WATER tea 1SG.SIT.R-drink 2SG.PRO WATER good
 kandigudak
 kandi-yudak
 2SG.SIT.R-drink

Translation: ‘I’m drinking tea but you’re drinking water.’
 (HK: 1972-MW-M02004364B)

4. Note that an orthography has also been established for Marri Ngarr, which is used in e.g. Ford (2010b).

The third tier provides a linguistic gloss for each element (explanations for many glosses are given in the Abbreviations) and the fourth tier is a translation into Standard Australian English.

Note that the glosses of many lexical stems which form part of the verb complex are approximations as it can be difficult to tease apart the semantics of the classifier stem and lexical stem in bipartite verbs. Lexical stems are, therefore, often given glosses which reflect the overall semantics of the verb in which they occur, even though this may not be accurate. For example, the verb in (20) contains the classifier stem *HANDS* which classifies the event as one performed with the hands (§5.4.2) and the lexical stem /*tap*/ which is glossed as ‘touch’. However, (21) shows that /*tap*/ can also occur in a verb meaning ‘try (i.e. taste)’, suggesting that its meaning may be something closer to ‘experience’ and the classifier stem determines how the object is experienced, e.g. through the hands, resulting in a verb which can be interpreted as meaning ‘touch’, or through the mouth, where it is interpreted as ‘taste’. Despite this hypothesis, as this lexical stem only occurs with two classifier stems in a limited number of examples, I do not have enough data to be confident of this element’s semantics; therefore I gloss it differently in each context and in a way that closely resembles the overall verbal meaning. However, when a lexical stem occurs more frequently and with a larger number of classifier stems so that a meaning common to all environments might be deduced, I give the lexical stem the same, usually more abstract, gloss (see §5.5 for examples).

- (20) *je jipezi ɲarin ariðapa maβindiβindi*
je= jipezi =ɲarin ari-tap=a ma=βindiβindi
 CHILD= little =INSTR 3SG.HANDS.R.PFV-touch=PST MASC=old.man
 ‘The baby touched the old man.’ (HK: 1972-MW-M02004364A)

- (21) *mazi ɲumunat ɲanan tɻaθap awu ari*
mazi ɲumun-at =ɲanan za-tap awu ari
 belly 1SG.PIERCE.R.IPFV-pick.up =SOURCE 2SG.MOUTH.IRR-try ANIM DEM.1
 ‘You’re going to like this meat, try it.’ (JN: IG3-011-B)

Each example includes a citation which lists the speaker’s initials followed by a colon, then the name of the recording from which the example is taken.

1.4.1 Limitations of the data

The opportunity to undertake this project has only been possible because of the recordings of Marri Ngarr made by several researchers from the 1960s onwards, as described in §1.4. While there is a wealth of information about the grammatical system of Marri Ngarr in these recordings, I have also encountered some limitations in undertaking a project using other researchers’ data. Working with secondary data has meant that I have not had the flexibility to explore topics in greater depth than what is already present in the existing recordings. Some topics, such as the classifier stem system, have been explored

in great detail in Ian Green's recordings. However, investigations of some topics which I felt were relevant for inclusion in a grammatical description, such as word order, were not the goal of the primary researchers' elicitations and, therefore, were not explored in any detail in the recordings. This has meant that certain topics are only able to be described at a superficial level in the thesis. The lack of targeted elicitation for some topics has also meant a lack of negative evidence. Therefore, it can be unclear whether a certain construction which is absent from the corpus is ungrammatical, or simply not captured. Also, as mentioned in §1.4, there is a limited amount of spontaneous speech in the corpus which has meant it has been difficult to explore topics where evidence is usually found in discourse context, e.g. determination, deixis, aspect. For these reasons in the description of various aspects of the grammar I try to discuss what has or has not been observed in the data, rather than what is (un)grammatical, as well as acknowledging when an analysis is only tentative due to limited, or lack of, discourse context. I also try to state when an analysis is based on very limited data. In structuring the thesis I try to strike a balance between providing a description which covers a broad enough range of topics that it can be considered a grammatical description (rather than an analysis of specific topics in the grammar), but also considering whether I have enough substantive information on a particular topic for it to warrant inclusion.

1.5 Thesis overview

The present chapter has provided a general introduction to the Marri Ngarr language, discussing its endangered status, situating the language in terms of the languages of the region and outlining some typological characteristics, as well as presenting the previous research on the language and discussing the contribution of this thesis. Over the remaining nine chapters this thesis deals with various aspects of the grammar. Chapter 2 provides a description of the phonology. Previous description of Marri Ngarr phonology (Ford 2005, pp. 54–55) is brief and based on minimal data. While Ford (2005, pp. 54–55) presents a segmental inventory and briefly describes some allophony and morphophonemics, the phonological analysis in the present thesis is based on a much larger corpus and provides a reanalysed segmental inventory accompanied by a detailed analysis (§2.1), particularly of the obstruent contrasts (§2.1.1). Syllable structure (§2.2.1) and consonant clusters (§2.2.2) are analysed for the first time and a description of some common morphophonemic processes is also included (§2.3). Chapter 3 provides diagnostics to distinguish parts of speech (§3.1) and gives an overview of the pronominal agreement markers, which are the primary method of encoding grammatical relations (§3.2). Chapter 4 presents largely the first detailed description of any aspects of the NP and includes an examination of constituency in nominal expressions (§4.1), primarily through a functional word order analysis (§4.1.1), an exploration of the nominal classifier system (§4.2) including its semantic categorisation (§4.2.1) and morphosyntax, including evidence for grammaticalisation of the system (§4.2.2), and also describes for the first time the characteristics of the various parts of speech which comprise the NP (§4.3 – §4.5). Aspects of the verb are the focus of four chapters in the thesis, demonstrating the centrality of this part of speech to the language. Chapter 5 discusses fundamental aspects of the verb, including the various aspects of the classifier (verb) stem system. The classifier stem is an obligatory predicative element of the verb and has a variety of functions (§5.2). Documentation of the classifier stem forms in Green (1993a) and some preliminary analysis in Ford (2005) and Preston (2012) provided a starting point from

which to explore this multifunctional element in greater depth, and this exploration includes topics such as its verbal semantics (§5.4) and its role in expressing transitivity (§5.3.3). This chapter also explores the semantics of the lexical stem, which is the other predicative element in complex predicates in Marri Ngarr (§5.5), as well as the argument structure of complex predicates (§5.3) and the encoding of grammatical relations via verbal morphology (§5.6): fundamental aspects of the grammar for which this thesis provides the first in-depth analysis. Chapter 6 presents an analysis of the argument number marking system on the verb. Argument number is primarily marked on the pronominal agreement markers and the forms have, therefore, been previously documented in Green (1993a) and Green (1993b), while a brief analysis on some aspects of the system is given in Preston (2012); however no comprehensive analysis of the whole argument number system has previously been undertaken. In this thesis I describe how the various number markers on the verb combine to render overall argument number and highlight the compositional nature of the system. Likewise, the TAM system of Marri Ngarr is previously undescribed except for some brief notes in Preston (2012) and documentation of the formal TAM contrasts on the classifier stem in Green (1993a). In chapter 7 I provide descriptions of the TAM markers in the system and describe how these markers function together to render overall TAM. In this chapter I also explore the marking of the grammatical mood categories of realis and irrealis and their mapping to verbs denoting actualised/non-actualised events. The final chapter which focuses on the verb is chapter 8, which again presents some aspects of the grammar which have not previously been described such as applicatives (§8.2) and a malefactive marker (§8.3), and also provides an in-depth account of body part noun incorporation (§8.1), which has previously only been given a very brief overview (Preston 2012, pp. 29–30). Reciprocal and reflexive constructions, which were previously described in detail in Preston (2012) are given a slightly updated analysis (§8.4). Chapter 9 provides a preliminary analysis of word order (§9.1), as well as sections on subordination (§9.2), copula constructions (§9.3), nominal predication (§9.4) and descriptions of various particles and clitics (§9.5). These are all aspects of the grammar which were previously undescribed. Chapter 10 provides concluding remarks and suggests directions for future research. Two appendices are also provided. One gives the full paradigms for the classifier stems, while the other gives a Marri Ngarr text.

Chapter 2

Phonology

Previous descriptions of the phonology of Marri Ngarr are comprised of two very brief sketches of the phonemic inventory (Tryon 1974; Ford 2005), some information contained in the pronunciation section of a learner's guide (Ford 2010b) and Green (2005), which is some unpublished notes containing a preliminary analysis of the phonemic inventory and provides the most insight into the phonology in terms of previous research. However, many parts of the phonology have not previously been documented. This chapter presents an overview of the fundamental aspects of the phonology of Marri Ngarr. In §2.1 I describe the segmental inventory with a focus on obstruents, which have distinctive characteristics within the Australian context. §2.2 provides an analysis of syllable structure and permitted consonant clusters as well as a brief overview of stress, while §2.3 outlines some common morphophonemic processes observed in the language.

2.1 Segmental Phonology

Phonemic inventories of Australian languages are incredibly similar considering the geographical area over which they are found (B. Baker 2014b, p. 141). Generally speaking Australian language phonemic inventories are 'long and thin' (Butcher 2012), having several places of articulation for stops with a corresponding nasal at each place; lacking both fricatives and an obstruent voicing contrast; having at least one, but up to four laterals in the coronal places of articulation; and usually having two rhotics, two glides and a small vowel system (three - five phonemic vowels), sometimes with a length distinction. Table 2.1, from B. Baker (2014b, p. 141) shows a typical maximal consonant inventory for an Australian language. The classic descriptions of Australian language phonologies such as Dixon (1980) are, however, almost exclusively focused on Pama-Nyungan languages due to the availability of language data at that time. As such, most of the generalisations about Australian languages in Dixon (1980) could be more accurately described as generalisations about Pama-Nyungan languages, and non-Pama-Nyungan languages such as the Daly languages sometimes exhibit deviations from this standard phonemic inventory.

	Bilabial	Apical		Laminal		Dorsal
		Alveolar	Retroflex	Dental	Palatal	
Stop	p	t	ʈ	ʈ̪	c	k
Nasal	m	n	ɳ	ɳ̪	ɲ	ŋ
Lateral		l	ɭ	ɭ̪	ʎ	
Trill/tap		r				
Approximant	w		ɹ		j	

Table 2.1: A typical (maximal) consonant inventory of an Australian language
(B. Baker 2014b, p. 141)

The Marri Ngarr phonemic inventory is given below in table 2.2. In some ways, it is similar to what we see in the wider Australian context: Marri Ngarr has several places of articulation for obstruents, with corresponding nasals at those same places of articulation (though a contrast in laminal stops is not reflected in the nasal contrasts (§2.1.1 and §2.1.2)), two rhotics and two glides (as well as a small vowel system (§2.1.6)). However in the obstruents there are some notable differences. While Australian languages generally only have one series of stops, Marri Ngarr shows a contrast between voiced and voiceless stops at two places of articulation (§2.1.1.2). Marri Ngarr is also unusual in the Australian context (though not in terms of Daly languages) in that it has phonemic fricatives (§2.1.1.3), and differs from many Australian languages in that it lacks an alveolar/retroflex contrast (§2.1.1.1).

	Bilabial	Apical		Laminal		Dorsal
		Alveolar	Retroflex	Dental	Palatal	
Voiceless stop	p	t		ʈ̪	c	k
Voiced stop	b	d				
Fricative	β		z̠		j	ɣ
Nasal	m	n			ɲ	ŋ
Lateral		l				
Trill/tap		r				
Approximant	w		ɹ		j	

Table 2.2: Phonemic inventory of Marri Ngarr

2.1.1 Obstruents

Marri Ngarr exhibits three types of contrasts for obstruents, having a place of articulation contrast, voicing contrast and stop/fricative manner contrast. Stops contrast at five places of articulation: /p/, /t/, /ʈ̪/, /c/ and /k/. While the bilabial, apical and velar contrasts are maintained in all positions in the syllable, the laminal contrast is only maintained word-initially, lexical stem-initially and post-consonantly. Place of articulation contrasts are discussed in §2.1.1.1. A voicing contrast is found between bilabial /p/ and /b/, and apical /t/ and /d/. This contrast occurs word-initially, and word-medially in intervocalic environments as well as post-consonantly over morpheme boundaries, but is neutralised in coda position, where only voiceless stops are ever observed. This contrast

is described in §2.1.1.2. A manner contrast, discussed in §2.1.1.3, is found between stops and fricatives at four places of articulation. The phonemic fricatives are /β/, /z/, /j/ and /ɣ/.

2.1.1.1 Place of articulation contrasts

Word-initially and post-consonantally stops contrast at all five places of articulation. Voiceless stops usually have voiceless realisation word-initially, while voiced allophones can occur when following another voiced segment utterance-medially. Generally voiceless stops maintain stop stricture, as opposed to phonemic fricatives which have more variable realisation in terms of manner (§2.1.1.3).

Word-initial:

/pindɨni/	‘nest’
/tindɨn/	‘secret’
/tɨntɨ/	‘Milkwood’
/cindi/	‘mangrove’
/kindir-/	2SG.HANDS.R.IPFV-

Post-consonantal:

/kanbi/	‘didgeridoo’
/βandi/	‘sun’
/maŋtɨ/	‘neck’
/naŋci/	THING
/kaŋki/	1INCL.DU.PRO

Word-initial laminals tend to be dental before non-front vowels and palatal before front vowels;⁵ however the examples below where both dental and palatal stops are both followed by front and non-front vowels provide evidence that a laminal contrast is present word-initially.

Word-initial:

/tɨridi/	‘young woman’
/ciridi/	‘guts’
/tumbu/	‘Spoonbill’
/cuja/	‘yesterday’
/tawur/	‘tree’
/cadir/	‘navel’

Despite this evidence for a word-initial and post-consonantal laminal contrast, there is no minimally contrastive evidence to show that /t/ contrasts with /c/ intervocally: in this environment we find a voiceless stop contrast at only four places of articulation.

5. In 76% of dental-initial nominals, the initial /t/ is followed by a non-front vowel, while in 75% of palatal-initial nominals, the initial /c/ is followed by a front vowel.

Word-medial:

/wapin/ 'sugar bag'
/yati/ 'good'
/kaci-/ 3SG.COOK.IRR-
/ciβaki/ 'tobacco'

/ɲipi-/ 1SG.SAY/DO.IRR-
/miti/ 'dot paint'
/nici/ 'nighttime'
/ma.ɲikin/ 'Silvertail'

Generally in this environment dental stops are found before non-front vowels, while palatal stops precede front vowels.

/jica/ [jɪt̪ɐ] 'father'
/-wici-/ [wici] 'roll up'

However, the laminal contrast does seem to be maintained lexical stem-initially,⁶ which can be an intervocalic environment (22) - (23), suggesting that this contrast may be maintained more generally in morpheme-initial environments.

(22) [ɲipit̪erkni]
/ɲipi-t̪erk=ni/
1SG.TIE.IRR-tie=FUT

'I'm going to tie him up.'

(JoN: IG3-015-B)

(23) [waniceta]
/wani-cet=a/
3SG.GO.R.PFV-sit=PST

'He sat down.'

(PT: IG3-037-A)

In coda position, obstruents are always realised as voiceless stops.

Coda:

/-yap-/ 'throw at'
/-at-/ 'pick up'
/-yubak-/ 'fall'
/-βac-/ 'kick'

A laminal contrast is not present in coda position and in this environment palatal realisation generally occurs. The examples below show the final segment of the lexical

6. The lexical stem is a predicative element found in complex predicates. See §3.1.1.1 for an overview and §5.5 for a detailed discussion of the function of this element.

stem /-βac-/ ‘kick’ is realised as a dental stop intervocally when followed by a back vowel (24), but as a palatal stop when in coda position, either as the first segment in a hetero-syllabic cluster (25), or word-finally (26).

- (24) [nɛŋbɛt̪ɐ]
 /na-ŋ-βac=a/
 3SG.FEET.R.PFV-1SG.O-kick=PST
 ‘He kicked me.’ (JN: IG3-013-A)

- (25) [kɛd̪ŋbaɪcni]
 /kadi-ŋ-βac=ni/
 3SG.FEET.IRR-1SG.O-kick=FUT
 ‘He’s going to kick me.’ (JN: IG3-010-B)

- (26) [nɛbaɪc]
 /na-βac/
 2SG.FEET.IRR-kick
 ‘Kick it.’ (JN: IG3-010-B)

While no apical place contrast is present for stops in any position, the voiced apical stop /d/ is often realised as post-alveolar [d̪] following a non-front vowel and more rarely /t/ is realised as [t̪] in the same environment.

/wudi/	[wɔ̄d̪i] ~ [wɔ̄di]	‘water’
/-wudar-/	[wɔ̄d̪ɐr] ~ [wɔ̄dɐr]	‘finish’
/kadi/	[kɛd̪i] ~ [kɛdi]	1DU.PRO
/yati/	[yɛt̪i] ~ [yɛti]	‘good’

The voiced apical stop /d/ can also sometimes be realised as a tap [r] in fast speech.⁷

- (27) [ŋɪrɪnpɪlpɪlŋɪn]
 /ŋidin-pil~pil=ŋin/
 1SG.CAUSE.R.PFV-REDUP~roll=1SG.GO.R.IPFV
 ‘I’m rolling it along.’ (JoN: IG3-025-B)

7. The tilde symbol, ~, is used in the gloss line of examples throughout the thesis to signal reduplication. See §2.3.6 and §5.5.1 for details of reduplication.

2.1.1.2 Voicing contrasts

While many Australian languages have only a single obstruent series (Fletcher and Butcher 2014, p. 91), some languages such as those in the Gunwinyguan and Burrarran families have a fortis/lenis contrast, where duration is considered the primary distinguishing feature of the contrast (Evans 1995b, p. 730). Less commonly, languages have a contrast based on voicing. This is true of Yolngu languages where both voicing and duration are relevant features of the contrast, with short voiced stops contrasting with long voiceless stops. In these languages the contrast is realised intervocalically and is neutralised in other environments.

In Marri Ngarr there is a voicing contrast for stops at bilabial and apical places of articulation. The characteristics of the contrast are unusual within the Australian context in that it is present word-initially as well as word-medially (intervocalically), as shown in the examples below. The examples also show that this contrast is present morpheme-initially in lexical stems, which occur within the larger verb and are, therefore, another type of word-medial environment. In coda position the contrast is neutralised and only voiceless stops are found.

Word-initial:

/puli/	‘sick’
/bura/	‘Pelican’
/tirak/	‘Black cockatoo’
/diri/	‘Bony bream’

Word-medial:

/kipi-/	3SG.SAY/DO.IRR-
/-βibiɽ-/	‘heal’
/yati/	‘good’
/kadi/	1DU.PRO

Lexical stem-initial:

/-pir-/	‘leave’
/-biɽ-/	‘cook’

Post-consonantly the contrast is observed when the cluster occurs across a morpheme boundary, as shown in examples (28) - (29) below. There is no conclusive evidence to show that the contrast is present post-consonantly within a morpheme.

- (28) [ŋiniɟeŋpirwuri]
/ŋiniɟe-ŋin-pir=wuri/
2SG.STAND.CMPLX.IRR-1SG.OBL-throw=TOWARDS

‘Throw it to me.’

(PT: IG3-023-A)

- (29) [jɛŋmbɪbɪɲi]
 /je-ŋin-biɲ~biɲ=ni/
 2SG.MOUTH.IRR-1SG.OBL-REDUP~COOK=FUT

‘He’s going to cook it for me.’

(JJ: RN5-004-A)

A voicing contrast is also reported for other Western and Southern Daly languages for bilabial and apical obstruents. Similar to Marri Ngarr, the contrast is present both word-initially and word-medially (intervocalically).⁸ In Ngan’gitjemerri, based on acoustic analysis, Reid (2011, pp. 49–67) finds a contrast in bilabial and apical obstruents where voicing is the primary distinguishing feature, being a consistent cue in both word-initial and medial positions. Acoustic analysis of Marri Tjevin obstruents finds a stop contrast at bilabial and apical places based on voicing and duration (Mansfield and Green 2021, pp. 226, 232). Airflow data from Murrinhpatha in Butcher (2004) shows greater intra-oral pressure in the voiceless stops compared to voiced ones, and preliminary acoustic analysis in Mansfield (2019, p. 54) shows that in initial position, the contrast is only distinguishable via voicing cues, while in medial position both voicing and duration contribute to the contrast. Future acoustic research is necessary to determine whether the contrast is based on voicing, duration, or a combination of both in Marri Ngarr.

2.1.1.3 Stop/fricative contrasts

Phonemic fricatives are uncommon in Australian languages, though they are found in some Daly languages and elsewhere in languages such as those of the Cape York region (Dixon 2002, p. 606). In Marri Ngarr fricatives are realised at five places of articulation, though I only consider four of these phonemic: /β/, /z/, /j/ and /ɣ/.⁹ A dental fricative [ð] is often realised in the corpus but this is analysed as an allophone of the dental stop /t/, as there is no evidence it is contrastive. Examples of phonemic stop/fricative contrasts are given below for bilabial, apical, palatal and velar places. These contrasts are found intervocalically, and also lexical stem-initially, which is a word-medial environment.

Bilabial:

/kiniβi/ ‘saltwater crocodile’

/ŋipi-/ 1SG.SAY/DO.IRR-

/-βibiɲ-/ ‘heal’

/-βiric-/ ‘climb’

/-pir-/ ‘leave’

/-biɲ-/ ‘cook’

8. Green (1989) reports the voicing contrast only word-medially in Marrithiyel, though more recently Mansfield and Green (2021, p. 222) report that the contrast is found in word-initial and word-medial positions in all Western and Southern Daly languages.

9. Note that while at least one minimal/sub-minimal set is found for each stop/fricative contrast, in some cases there is little more evidence in the corpus than what is exemplified.

Apical:

/mazi/ ‘belly’
/yati/ ‘good’
/nadi/ 2DU.PRO

/-zup-/ ‘scrape’
/-tuŋ-/ ‘make.hole’
/-duk-/ ‘pull’

Palatal:

/βejirβeri/ ‘Plumed (grass) whistling duck’
/nici/ ‘night’

/-jiwin-/ ‘jealous’
/-ci-/ ‘tire’

Velar:

/mayulβi/ ‘nulla nulla’
/ŋakumal/ ‘totem’

/-yudak-/ ‘drink’
/-kut-/ ‘descend’

These fricatives exhibit variable realisation between voiced and voiceless, though most have a tendency for voiced realisation. As such, I use voiced IPA symbols to transcribe them at a phonemic level. The bilabial fricative is sometimes realised as a stop or the labial glide [w], and the palatal fricative as a stop or the palatal glide [j]. The apical fricative can be realised as a stop and is notable in that it can have a rhotic quality, e.g. [zɹ]~[tɹ], which has been described as an areal feature of the Daly languages (Green 1989, pp. 18–19; Reid 2011, pp. 41–42).

/za-/ [tʰɛ] ~ [tʰe] ~ [tɛ] ~ [za] 3SG.MOUTH.R.PFV-
/zamu/ [tʰɛmʊ] ~ [tɛmʊ] ~ [zɹɛmʊ] ~ [zɛmʊ] ‘Long-necked turtle’

Fricatives often exhibit variable manner realisation, as do voiceless stops in word-initial position where the stop/fricative contrast is not present. It can, therefore, sometimes be difficult to determine how to represent obstruents phonemically. The apical obstruent varies between [z] ~ [t] word-initially, which suggests that this is phonemically a fricative: there is no place contrast between alveolar and retroflex stops (§2.1.1.1) and apical stops are always realised as alveolar except when preceded by a non-front vowel, where they variably have retroflex realisation, always with stop stricture.

/midi/ [mɪdi] ‘ankle’
/madi/ [mɛɖi] ‘barramundi’

Therefore, the variation we see between [z] ~ [t] suggests a phonemic fricative which hardens to a stop; if instead this variable realisation was lenition of the apical stop we would expect variation between [t] ~ [z], and if [t] was retroflex realisation of the alveolar stop, with variable lenition, then we would expect this to be conditioned by a preceding non-front vowel, which is not what we find in the corpus.

/zamu/ [t̪əmʊ] ~ [z̪əmʊ] ‘Long-necked turtle’
 /=zamin/ [t̪əmɪn] ~ [z̪əmɪn] =AWAY

This apical data may also suggest that obstruents with variable realisation at other places of articulation may also be phonemic fricatives. At this stage, I analyse those segments which fairly consistently exhibit stop realisation as phonemic stops, while those elements whose realisation is more variable but tends towards fricative realisation are analysed phonemically as fricatives. For example, the element /pundi/ ‘hand’ is analysed as being stop-initial: its initial segment is realised as a stop 88% of the time in the corpus, while 11% of examples are fricative-initial and 1% of instances are approximant-initial. In contrast the element /βindi/ WHERE is analysed as fricative-initial: the initial segment is realised as a fricative in 71% of instances, with 24% of instances being stop-initial and 4% of instances approximant-initial.

/pundi/ [p̪ʊndi] ~ [β̪ʊndi] ~ [ϕ̪ʊndi] ~ [w̪ʊndi] ‘hand’
 /βindi/ [p̪ɪndi] ~ [β̪ɪndi] ~ [ϕ̪ɪndi] ~ [w̪ɪndi] WHERE

Phonemic fricatives are found in other Western and Southern Daly languages (Mansfield and Green 2021, p. 223), though the number of fricatives and place of articulation differ in each language.

2.1.2 Nasals

Australian language phonemic inventories almost always have a corresponding nasal phoneme for each stop place of articulation (Dixon 2002, p. 549). While there is a corresponding nasal at most stop places of articulation in Marri Ngarr, there is no evidence for a laminal nasal contrast, even though this contrast is present word-initially and post-consonantally for stops. This may reflect the fact that laminal nasals are rarely observed in word-initial position in the syllable (§2.2.1) (this is also the case in other Western and Southern Daly languages according to Green (1989, p. 30), Reid (1990, p. 71), and Mansfield (2019, p. 47)). The following minimal sets demonstrate nasal contrasts in word-initial, intervocalic and coda positions:

/mari/	LANG
/nari-/	2NSG.HANDS.R.PFV-
/ɲari-/	1NSG.SIT.IRR-
/ɲa-/	3SG.COOK.R.PFV-
/ɲimi-/	1SG.SAY/DO.R.PFV-
/ɲini-/	2SG.MOUTH.R.PFV-
/ɲipi-/	3NSG.COOK.R.PFV-
/βiɲi/	‘now’
/buyam/	‘white’
/akan/	‘Wooly butt tree’
/dap/	‘shark’
/waɲ/	‘calf (of leg)’

Realisation of laminal nasals is variable. There are some signs of realisation being allophonic, with the examples in (30) - (32) below showing that realisation of the INTRANSITIVE form of the DUAL SUBJECT marker is more commonly dental preceding /a/ while the palatal realisation is common in coda position. However, generally realisation of laminal nasals is more variable than for laminal stops. Often there are no obvious conditioning factors and palatal and dental realisations are both common in the same environment.

- (30) [kewɲɛ]
 /kawu-ɲ=a/
 3.SIT.R-DU.S.INTR=PST
 ‘Those two sat.’ (UNK: 196905-DT-DO1009402)
- (31) [kewɲmezi]
 /kawu-ɲ-mazi/
 3.SIT.R-DU.S.INTR-wait
 ‘Those two are waiting.’ (JJ: RN5-002-A)
- (32) [kewɲbicmi]
 /kawu-ɲ-bicmi/
 3.SIT.R-DU.S.INTR-watch
 ‘Those two are watching.’ (CM: 1982-Tree-Dreaming)

2.1.3 Laterals

Australian languages commonly have up to four laterals, one at each place of articulation where a stop/nasal is present, though many languages don't utilise one at every place (Dixon 1980, pp. 142–144). The Marri Ngarr phonemic inventory contains only one lateral: apico-alveolar /l/. Examples below show /l/ in various positions in the word.

/lijik/	'no/nothing'
/lambarir/	'waterlily tuber'
/kalan/	'woomera'
/pulinmi/	'hunting platform'
/wujil/	'sand goanna'
/βinkal/	'moon'

In this way Marri Ngarr contrasts with Magati Ke, which has /l/ as well as the lamino-dental lateral /ɭ/. The dental lateral /ɭ/ in Magati Ke corresponds to /ɻ/ in Marri Ngarr (Ford 2010b, p. 10).

Marri Ngarr	Magati Ke	English gloss	
/jeɻi/	/jeɭi/	WEAP	(Ford 2010: 20)
/maɻir/	/maɭir/	'leaf'	(Ford 2010: 10)

A retroflex lateral [ɭ] is occasionally realised in Marri Ngarr; however there is no evidence that it is contrastive. Two of the forms listed below are alternately produced as /karila/ 'stone/hill/coin' and /kiriliŋa/ 'big' respectively, which suggests that the elision of /i/ in some productions causes the adjacent /r/ and /l/ to become [ɭ]. Laterals have a tendency to cause preceding high front vowels to elide. Another example of this is /pili-mar/ 'short-necked turtle', where the elision results in realisation of a rare onset cluster: [pɪɻmər] ~ [plmər].

/kala/	[kəɻə] ~ [kɛɻə]	'stone/hill/coin'
/kiliŋa/	[kɪɻŋə] ~ [kɪɻŋə]	'big'
/jilirki/	[jɪɻrki] ~ [jɪɻrki]	'meat'

2.1.4 Rhotics

Almost all Australian languages have two rhotics in their phonemic inventories (Dixon 1980, p. 144). One rhotic is generally alveolar and produced as a trill/tap/flap whereas the other is generally retroflex and is usually treated as an approximant. Marri Ngarr possesses an apico-alveolar /r/ and a retroflex /ɻ/. /r/ is usually realised as a tap and occurs word-medially and finally, but never word-initially in the corpus.¹⁰ The retroflex /ɻ/ occurs in all three word positions, though it is rare word-initially (§2.2.1). Word-final /ɻ/ is very uncommon across Australian languages (Dixon 1980, p. 169) and is also a distinguishing feature between Western and Southern Daly languages, with word-final /ɻ/ not being permitted in Southern Daly languages (Mansfield 2019, p. 47).

10. Nambatu et al. (2009, p. 137) record one /r/-initial word: /ridi/ 'Common baler shell'.

/ɬinjɪ/	‘dry season wind’
/ɬambu/	‘buttocks’
/kijiri/	‘slow’
/marimari/	‘Cycad palm’
/kiɬiɬi/	‘game’
/βaɬi/	‘grass’
/mucir/	‘emu’
/maɬir/	‘leaf’
/wiriɬ/	‘wind’
/kariɬ/	‘Black bream’

2.1.5 Glides

Marri Ngarr contrasts a peripheral glide /w/ with a palatal glide /j/. This contrast is found across all Australian languages (Dixon 1980, p. 146). The pairs below demonstrate the contrast between these two glides in various syllable positions. Both glides are very rare in coda position, with /w/ only occurring in coda position in one word and /j/ only occurring in coda position in two words in the corpus (also see §2.2.1.1).

/jeɲi/	‘today’
/weɲi/	‘cloud’
/ɬamija/	‘maternal grandfather’
/wadiwarɲ/	‘male Antilopine wallaroo’
/wakaj/	‘finish’
/jaw/	‘hey’

2.1.6 Vowels

Vowel systems in Australian languages are relatively small from a cross-linguistic perspective, with languages usually possessing three to five phonemic vowels, sometimes with a length contrast (Fletcher & Butcher, 2014, pp. 91–92). In a three-vowel system, these vowels are usually transcribed as /i/, /u/ and /a/, though there can be great variation in their realisation. Marrithiyel, Ngan’gitjemmerri and Murrinhpatha are reported to have four contrastive vowel phonemes described as high front /i/, high back rounded /u/, mid front /e/ and low /a/ (Green 1989, p. 14; Reid 2011, p. 32; Mansfield 2019, p. 2) whereas a five-vowel system is reported for MalakMalak (Birk 1976, p. 11), Batjamalh (Ford 1990, p. 35), Emmi (Ford 1998, p. 36) and Matngele (Zandvoort 1999, p. 14), and a six-vowel system is found in Kamu (Harvey 1989, pp. 19–21).

Marri Ngarr has a four-vowel system consisting of /i/, /u/, /a/ and /e/. The minimal sets below demonstrate these contrasts.

/βindi/	WHERE
/pundi/	‘hand’
/βandi/	‘sun’
/βenni/	‘dust’
/wiriɿ/	‘wind’
/=wuri/	=TOWARDS
/wari/	‘wet season’
/weri/	‘blue tongue lizard’

/i/ has a tense and lax allophone, with the lax [ɪ] occurring word-medially and the tense [i] occurring word-finally, or prior to a glide.

/wiridi/	[wɪɾɪdi]	‘dilly bag’
/cipkimbi/	[cipkɪmbi]	‘black’
/niwɪɾ/	[niwɪɾ]	3DU.PRO
/kinijaŋ/	[kɪnɪjəŋ]	2SG.STAND.R

/u/ is generally realised as [ʊ] and has a tense allophone [u] which occurs prior to a glide.

/muku/	[mʊkʊ]	‘woman’
/tumbu/	[tʊmbʊ]	‘Spoonbill’
/juwana/	[juwɛnɛ]	‘frog’
/puja/	[pujɛ]	‘rope’

/u/ is variably realised as [ɔ] when preceded by a peripheral consonant, and this realisation seems more common when it is both preceded and followed by a peripheral consonant. Prior to a palatal obstruent, /u/ is often diphthongised to [ɔɪ].

/-kurp-/	[kʊɾp] ~ [kɔɾp]	‘hit’
/ŋure/	[ŋɔɾɛ]	‘coal’
/ŋalpu/	[ŋɛlpʊ] ~ [ŋɛlpɔ]	‘many’
/jamucari/	[jɛmʊtɛɾi] ~ [jɛmɔtɛɾi]	‘new born baby’
/balkum/	[bɛlkɔm]	‘bone’
/muku/	[mʊkʊ] ~ [mɔkɔ]	‘woman’
/mucer/	[mɔɪcɛɾ]	‘emu’
/-βuc-/	[βʊc] ~ [βɔɪc]	‘discard’

/a/ is generally realised as [ɐ]. Following a palatal it is often fronted to [æ] or [ɛ]. Preceding a palatal obstruent or glide it is realised as the diphthong [aɪ]. Preceding a palatal nasal some forms are fronted to [æ].

/βalaric/	[φɛlɛrɪc]	‘skink’
/ŋaka/	[ŋɛkɛ]	‘sister’
/cari/	[cæri]	‘wind’
/ŋa-/	[ŋɛ] ~ [ŋɛ]	3SG.COOK.R.PFV-
/ja-/	[jɛ] ~ [jɛ]	2SG.MOUTH.IRR-
/ŋacpir/	[ŋaɪcpɪr]	‘long’
/wakaj/	[wɛkaj]	‘finish’
/aŋ-/	[æŋ]	3SG.SWING.R.PFV-

/e/ is generally realised as [ɛ]. Occasionally pronunciation varies between [ɛ] and [æ].

/peri/	[pɛri]	‘foot’
/cipe/	[cipɛ]	WHAT
/werek/	[wɛrɛk]	goanna
/bekulin	[bɛkɔlm] ~ [bækɔlm]	‘Wandering (water) whistling-duck’
/βirek/	[βɪrɛk] ~ [βɪræk]	‘ground/dirt’

2.2 Phonotactics

2.2.1 Syllable structure

This section describes the syllable structure of Marri Ngarr words, focussing on monomorphemic words (mostly nominals). In Marri Ngarr, monomorphemic words consist of between one and four syllables, with disyllabic and trisyllabic being the most common word shape. Examples of words of varying syllable count and weight are given below.

Monosyllabic:

/ce(-)/	3SG.LIE.R(-)
/mi/	‘eye’
/mu/	BUT
/ŋa/	3SG.F.PRO
/kan/	ANAPH.DEM
/mar/	‘hair’
/ner/	2PL.PRO
/tɛr/	‘fog’

Disyllabic:

/pu.ma/	‘name’
/mi.zɛn/	‘Pandanus’
/wuŋ.ki/	‘termite’
/bal.kum/	‘bone’

Trisyllabic:

/mi.ri.di/	‘echidna’
/ŋa.ri.βin/	‘only/just’
/βa.lan.ban/	‘Golden catfish’
/ma.kul.βi/	‘nulla nulla’
/mul.ciŋ.kin/	‘sea turtle’
/cip.kim.bi/	‘black’
/pin.di.ŋi/	‘nest’
/lim.bi.ɟir/	‘small barramundi’

Quadrisyllabic:

/ni.ŋi.ni.zi/	‘grasshopper’
/kwa.ni.cip.cer/	‘Common wallaroo’
/ma.lan.ŋum.bu/	‘Long tom’
/t̪i.rit.t̪i.rit/	‘Peewee’
/ma.ri.ma.ri/	‘Cycad palm’

Monosyllabic words can consist of an open or closed syllable. Quadrisyllabic monomorphemic words are rare in Marri Ngarr; however words containing four or more syllables are commonplace for complex verbs, i.e. verbs containing multiple morphemes. For example the verb in (33) below contains nine syllables.

- (33) *naŋɟi ku.mi.par.mu.gaŋ.gi.gun.me.la*
naŋci kumun-βarmu-kaŋki=kunmel=a
THING 3NSG.PIERCE.R.IPFV-give-RECIP=3PL.GO.R.IPFV=PST

‘They were giving things to each other.’

(JJ: RN5-003-B)

Many quadrisyllabic nominal words are reduplications (such as /t̪irit̪irit/ ‘Peewee’ and /marimari/ ‘Cycad palm’ above), while others I suspect may be compounds or nominalisations. For example /malanŋumbu/ ‘Long tom’ contains /mala/, an element which often occurs in words denoting long, thin entities¹¹ and, therefore, probably comprises the first part of a compound. /kwanicipcer/ ‘Common wallaroo’ contains the 3SG.GO.R(.IPFV) classifier verb stem form /kwani(-)/ and potentially forms a nominalisation which describes a characteristic of the animal.

While the vast majority of words are consonant-initial, onsetless syllables are also possible, resulting in vowel-initial words including /ap/¹² and /ii/ which form monosyllabic words. Some examples of vowel-initial words are given below. Apart from the conjunction /ii/, these words are all /a/-initial. Note that there are also hundreds of animal terms which are /a/-initial; however these words differ from the words in the examples below in that they are bimorphemic, containing the ANIM classifier proclitic /a=/. (§4.2.1.2), e.g. /a=βeŋ/ ‘ANIM=Agile wallaby’.

11. Some examples of words containing /mala/ are /malawur/ ‘axe’, *malalambic* ‘sternum’ and *malan* ‘brolga’ (a tall bird with long legs and neck).

12. The gloss for /ap/ reflects the fact that its function is unclear, though the data suggests it has a meaning associated with uncertainty (§9.5.2).

/ap/	AP
/ii/	AND
/ari/	DEM.1
/awu/	ANIM
/ambu/	NEG
/arwu/	‘white gum’
/akan/	‘woollybutt’
/annimbir/	‘three’

2.2.1.1 Restrictions on consonants by syllable position

Permissible consonants in the Marri Ngarr syllable vary by position, with five distinct syllable positions for consonants identified:

- C₁ = word-initial/post-consonantal syllable onset
- C₂ = second consonant in an onset cluster
- C₃ = intervocalic syllable onset
- C₄ = first consonant in a coda cluster
- C₅ = syllable coda

Some examples of monomorphemic words with varying syllable and word shapes are given below and these are followed by a description of the permissible consonants in each syllable position. Note that the description is primarily based on nominal and lexical stem examples, while for classifier stems, a more restricted set of consonants is permitted in certain syllable positions.¹³

VC ₅	/ap/	AP
C ₁ V	/mi/	‘eye’
VC ₃ V	/ari/	DEM.1
C ₁ VC ₅	/waŋ/	‘calf (of leg)’
C ₁ VC ₄ C ₅	/t̪elk/	‘small paperbark’
C ₁ VC ₃ V	/mu.ni/	‘feather’
C ₁ C ₂ VC ₃ V	/kwa.z̪i/	SSPEAR
C ₁ VC ₃ VC ₅	/ŋa.wak/	‘large black mosquito’
C ₁ VC ₅ C ₁ V	/din.bu/	‘jungle’
C ₁ VC ₅ C ₁ VC ₅	/jim.buk/	‘Grey paperbark’
C ₁ VC ₃ VC ₅ C ₁ V	/ki.cer.ma/	‘Taipan’
C ₁ VC ₅ C ₁ VC ₃ V	/jir.wu.ɿi/	‘Green tree snake’
C ₁ VC ₃ VC ₅ C ₁ VC ₅	/ka.ŋal.kir/	‘Waterlily’
C ₁ VC ₃ VC ₄ C ₅ C ₁ V	/βi.jelm.bu/	‘Kookaburra’

C₁: Generally, rhotics and laminal nasals do not occur in this position. Whilst this is not an absolute restriction, it is a clear pattern: the two rhotics /r/ and /ɻ/ never occur post-consonantly and only four /ɻ/-initial words are recorded in the database. Likewise

13. For example all classifier stem forms are either sonorant- or vowel-final, and word-initially classifier stems generally only permit nasals, peripheral obstruents, glides and /a/, with one form having a /c/-initial variant and one other form having a /z/-initial variant.

laminal nasals are only recorded word-initially in five words.¹⁴ Stop/fricative contrasts are neutralised in this position (§2.1.1 and §2.1.1.3 discuss the realisation of these neutralised obstruents in word-initial position).

C₂: Only the labial glide /w/ can fill this position. One type of onset cluster is observed in Marri Ngarr: peripheral consonants may be followed by the labial glide (/kw/, /ŋw/, /βw/). These clusters are confined to a handful of (often high frequency) lexemes. Realisation is variable, sometimes sounding like true clusters, sometimes like slightly labialised segments and sometimes the second consonant is absent. Complex onsets are uncommon in Australian languages, though labialised velars are also observed in Anindhilyakwa (van Egmond 2012, p. 16).

/kwa.ni(-)/	[kwɛ.ni] ~ [k ^w ɛ.ni] ~ [kɛ.ni]	3SG.GO.R(IPFV-)
/kwaŋ/	[kwɛŋ] ~ [k ^w ɛŋ] ~ [kɛŋ]	3SG.STAND.R
/kwa.zi/	[kwɛ.zi] ~ [k ^w ɛ.zi] ~ [kɛ.zi]	SSPEAR
/ŋwac/	[ŋ ^w ɑɪc] ~ [ŋɑɪc]	'ghost'
/βwa/	[βwɛ] ~ [β ^w ɛ] ~ [βɛ]	'thigh/leg'

In other parts of the grammar an onset cluster is occasionally formed due to vowel elision when /u/ follows a peripheral consonant and precedes /w/ (34). The onset clusters described above may have arisen from a previous process such as this.¹⁵

(34)	[kaɪjɛbur	wudi	ti	gwu]	
	/kaja-bur	wudi	ti	ku=wu/	
	3SG.STAND.CMPLX.IRR-COOL	WATER	tea	DEM.2=WU	
	'Let the tea cool down.'				(JoN: IG3-026-A)

C₃: Any consonant can occur in intervocalic position.

C₄: This position may only be filled by a liquid: coda clusters are uncommon but do occur and all instances consist of a liquid followed by a peripheral consonant. Marrithiyel coda clusters follow the same pattern (and have more possible combinations attested) (Green 1989, p. 33).

/-kurp-/	'hit'
/-wark-/	'hide'
/βi.jɛlm.bu/	'kookaburra'
/tɛlk/	'small paperbark'

C₅: The glides /w/ and /j/ are very rarely found in coda position, and only observed in words that don't belong to one of the major parts of speech, such as interjections. This

14. /ɲ/ can occur post-consonantly in complex verbs as the initial segment of the lexical stem /-ɲe-/ 'smell' when preceded by a nasal-final classifier stem, e.g. /am-ɲe/ 'Smell (it)'.
 15. For example, the regular form of the 3SG REALIS (IMPERFECTIVE) SUBJECT marker (which forms part of the classifier stem) is /ku-/ (§5.6.1). This SUBJECT-marking form may have attached to the form /wani/ (which is synchronically the 3SG.GO.R.PFV form), creating the environment where vowel elision tends to occur. Over time, the current form 3SG.GO.R(IPFV) form /kwani(-)/ may have developed.

same coda restriction is observed in Marrithiyel Green (1989, p. 30). Cross-linguistically, Ameka (1992) describes interjections as being phonological anomalous; involving types of segments which do not otherwise occur in a given language.

/wakaj/ ‘finish’
 /puj/ ‘go on’
 /jaw/ ‘hey’

Voicing contrasts are neutralised in coda position and realised as voiceless stops, while fricatives do not occur in coda position.¹⁶

2.2.2 Heterosyllabic consonant clusters

Consonant clusters are more common over syllable boundaries than in syllable codas (§2.2.1) and many more combinations are possible. Some examples of heterosyllabic cluster combinations grouped by manner of the first consonant are given below:

Liquid-initial:

/βu.jil.mi/ ‘March fly’
 /dil.pi/ ‘lice’
 /ma.kul.βi/ ‘nulla nulla’
 /de.mi yul.tu.yul.tu/ ‘kidney’
 /ji.ŋil.di/ ‘Long yam’
 /βul.ce.rit/ ‘eagle’
 /mil.ŋin/ ‘mountain’
 /wul.ki.rim/ ‘blood’
 /mi.ɽer.min/ ‘moon’
 /jir.cip/ ‘cat’
 /wur.ŋin/ ‘Green plum’
 /ɽir.kit/ ‘small green frog’

Nasal-initial:

/wam.bu/ ‘red soil country’
 /pin.mi/ ‘freshwater snake’
 /din.bu/ ‘jungle’
 /βan.di/ ‘sun’
 /mun.ŋi.ni/ ‘paperbark’
 /ɽan.ki/ ‘prawn’
 /waj.ɽi/ ‘after’
 /waj.bi/ ‘crab’
 /ŋij.ci/ ‘one’
 /kaŋ.ki/ 1INCL.DU.PRO

16. I have, however, recorded /limbiɽir/ ‘small baramundi’ with the alternant realisation [limbiɽiz] and it is similarly recorded in Nambatu et al. (2009, p. 117) as /limbiɽirz/.

Obstruent-initial:

/kwani.cip.cer/	‘Common wallaroo’
/cip.kim.bi/	‘black’
/t̪at.ma/	‘straight’
/kur.ket.pan/	‘Rock wallaby’
/wat.ki/	‘White ibis’
/ŋac.pir/	‘long’
/wac.ki/	‘later’
/kuk.pi/	‘Black-headed python’

The attested heterosyllabic cluster combinations are always sequences of C_5C_1 consonants: the first consonant in a hetero-syllabic cluster is never a glide, fricative or voiced stop (/ɹ/ is also not attested in first position of a heterosyllabic cluster in the database, even though it can appear in coda position) while the second cluster consonant is not a rhotic or laminal nasal, and there is no evidence of stop/fricative contrasts in this position. The second cluster consonant is slightly more restricted than C_1 in word-initial position in that there is no obstruent voicing contrast post-consonantly. The bilabial stop followed by the palatal stop in /kwani^pcer/ is the only cluster which is a peripheral-coronal combination; however as discussed in §2.2.1 this form potentially consists of more than one morpheme. This shows that Marri Ngarr generally follows a pattern of dispreference for peripheral-coronal clusters which is found in Australian languages (Hamilton 1996, pp. 109–113; Mansfield 2019, p. 48). Geminate are rare in monomorphemic words, but possible.¹⁷ There is no evidence that they are contrastive.

2.2.3 Stress

A detailed analysis of stress in Marri Ngarr is beyond the scope of this thesis; however here I make some basic generalisations about word stress. Note that these findings are impressionistic and further investigation is required for a more comprehensive understanding of the stress system in Marri Ngarr.

In nominals, primary stress occurs on the first syllable of the stem. Words with three or more syllables can attract secondary stress on the third syllable.

/ŋáta/	‘house’
/málaŋ/	‘Brolga’
/t̪úmbu/	‘Spoonbill’
/címbec/	‘long yellow mosquito’
/wádiwàŋ/	‘male Antilopine wallaroo’

Procliticisation does not affect stress placement. Two nominals are repeated below, but in these examples they co-occur with the ANIM proclitic /a=/. In this environment stress still occurs on the first syllable of the nominal regardless of the presence of the proclitic.

17. Geminate are more common in complex verbs, where they can be formed over morpheme boundaries, e.g. /ŋun=ni/ 1SG.GO.R=FUT is realised as [ŋoŋni].

/a=címbec/ ‘ANIM=long yellow mosquito’
 /a=wádiwàŋ/ ‘ANIM=male Antilopine wallaroo’

Some exceptions to this rule occur: occasionally for animal terms secondary stress falls on the vowel of the ANIM classifier instead of on the first syllable of the nominal stem, and the third syllable receives primary stress (the heavy second syllables of these nominals may attract primary stress). This type of stress pattern suggests a reanalysis has taken place where the classifier has become integrated into the nominal stem.¹⁸

/à=kalémbi/ ‘ANIM=Water rat’
 /à=jilírki/ ‘ANIM=meat’
 /à=βijélmbu/ ‘ANIM=Kookaburra’

Reduplicated nominals appear to receive primary stress on both the first syllable and the first reduplicated syllable.

/wúkwúk/ ‘Barking owl’
 /márimári/ ‘Cycad palm’

Stress placement in verbs depends on whether the verb is simple or bipartite. Simple verbs consist of a classifier stem plus optional morphology, while bipartite verbs consist minimally of both a classifier stem and lexical stem (see §5.1 for further details). In simple verbs, stress generally falls on the first syllable of the classifier stem (35). Secondary stress is generally attracted to the third syllable of the verb (36), provided this is not a tense enclitic. Note that stress can be attracted to an epenthetic vowel.

(35) [ŋímijɛ]
 /ŋimi=ja/
 1SG.SAY.R.PFV=PST
 ‘I said (something).’ (JN: IG3-011-A)

(36) [ŋínimìnini]
 /ŋinim-ni=ni/
 2SG.SAY/DO.IRR-3SG.M.OBL=FUT
 ‘You’re going to tell him.’ (JN: IG3-006-A)

In bipartite verbs, primary stress generally falls on the first syllable of the lexical stem, while secondary stress falls on the initial syllable of the classifier stem, so long as it is not adjacent to a stressed syllable (37) - (38).

18. Stress assignment on other terms for animals does not shift to the initial vowel even though reanalysis of the stem seems to have taken place to include the ANIM classifier vowel - see §4.2.2 for details.

- (37) [ŋòlɪmódijə]
 /ŋuli-mudi=ja/
 1SG.BUMP.R.PFV-see=PST
 ‘I saw him.’ (JN: IG3-006-B)

- (38) [ŋulmódmi]
 /ŋul-mudi=ni/
 1SG.BUMP.IRR-see=FUT
 ‘I’m going to see him.’ (HK: 197207-MW-M02004362B)

The examples in (39) - (41) below show that it is the classifier stem and lexical stem in particular that attract stress, rather than stress assignment being based on syllable timing. These examples contain a varying number of intervening syllables between the two stressed syllables yet in each example stress falls on the first syllable of the lexical stem and classifier stem.

- (39) [gè.ŋim.bi.mó.ri.ŋə]
 /kaŋi-mbi-muriŋ=a/
 1SG.SIT.R-2SG.OBL-talk=PST
 ‘I talked to you.’ (JN: IG3-006-A)

- (40) [pò.li.niŋ.gi.yép.ni.mə]
 /puli-ni-ŋki-ɣap=nim=a/
 3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1INCL.DU.O-throw.at=AUG=PST
 ‘They threw (a rock) at us.’ (PT: IG3-039-A)

- (41) [pì.ri.mʊŋ.gi.niŋ.wéŋ.ɖi.ni]
 /pirimʊŋki-ni-ŋ-waŋɖi=ni/
 3NSG.FOLLOW.IRR-(U)AUG.S>MIN.O-1SG.O-after=FUT
 ‘Those two are going to follow me.’ (PT: IG3-033-A)

When the lexical stem is disyllabic, primary stress occasionally falls on the second syllable of the lexical stem (42).¹⁹

19. This type of stress assignment may be the result of a lexical stem formation (§8.1.5) where the stress has not yet shifted to the first syllable of the newly formed lexical stem.

- (42) [pèŋŋgubéke]
 /pan-ŋ-yubak=a/
 3NSG.GO.R.PFV-DU.S.INTR-fall=PST

‘Those two fell down.’

(PT: IG3-021-A)

When the lexical stem is reduplicated, stress falls on both the lexical stem and the reduplicated form (43) - (44).

- (43) [ŋùlɪzítípe]
 /ŋuli-zip~zip=a/
 1SG.BUMP.R.PFV-REDUP~bite=PST

‘I bit it.’

(JoN: IG3-034-A)

- (44) [ŋèrɪwídɪcwídɪte]
 /ŋari-widic~widic=a/
 1SG.HANDS.R.PFV-REDUP~shake=PST

‘I shook it.’

(HK: 1972-MW-M02004365A)

In Marrithiyel and Ngan’gitjemerri, rather than the lexical stem consistently attracting stress, stress can fall on incorporated body parts and applicatives (Green 1989, p. 37; Reid 1990, p. 97). As exemplified below, stress is not observed falling on the APPLICATIVE marker in Marri Ngarr (45) nor does it generally fall on incorporated body parts (46) - (47), though (48) shows there are exceptions.

- (45) [ŋìlɪmɔtétɛ]
 /ŋili-ŋ-mu-tac=a/
 1NSG.BUMP.R.PFV-2SG.O-APPL-finish=PST

‘We finished (the meat) on you.’

(PT: IG3-023-B)

- (46) [ŋùmumbirmɛndɪtétérke]
 /ŋumu-mbir-maŋti-terk~terk=a/
 1SG.TIE.R.PFV-3PL.O-neck-REDUP~tie.up=PST

‘I tied up a lot of (dogs).’

(PT: IG3-033-A)

- (47) [ŋɛ̀rɪmɪwɔ̀rɪtɛ]
 /ŋari-mi-yurit=a/
 1SG.HANDS.R.PFV-eye-turn=PST
 ‘I covered his eye.’ (JoN: IG3-034-A)

- (48) [ŋɛ̀dɪmɛ́nβɔ̀rɛ]
 /ŋari-men-βuɿ=a/
 1SG.HAND.R.PFV-arm-break=PST
 ‘I broke the branch.’ (JN: IG3-010-A)

2.3 Morphophonemics

The following sections outline some common morphophonemic processes observed on the verb in Marri Ngarr. These processes are generally seen in the region between and including the classifier stem and lexical stem.

2.3.1 Vowel epenthesis

Vowel epenthesis regularly occurs immediately following a sonorant-final classifier stem (all classifier stems are either sonorant- or vowel-final) if the following element is sonorant-initial and belongs to one of the following categories: (a) slot 2 marker (either the OBJECT, OBLIQUE, DUAL SUBJECT marker or (U)AUG.S>MIN.O marker); (b) lexical verb stem. As the OBJECT, OBLIQUE, DUAL SUBJECT and (U)AUG.S>MIN.O markers are consistently sonorant-initial, vowel epenthesis is frequently observed following the classifier stem. Whilst vowel epenthesis is fairly consistently realised before these markers,²⁰ occurrence of the epenthetic vowel prior to sonorant-initial lexical stems is more variable. One example also shows that epenthesis can be triggered by the ADJUNCT marker when there is no lexical stem present. The quality of the epenthetic vowel is generally high and front, but may be subject to assimilation or vowel harmony (§2.3.2). Some examples of vowel epenthesis triggered by these various markers are given below.

- (49) [æɲɪŋgɔ̀rɛ]
 /æɲ-ŋ-kurp=a/
 3SG.SWING.R.PFV-1SG.O-hit=PST
 ‘He hit me.’ (RK: 197207-MW-M02004363A)

20. Despite the relative consistency of vowel epenthesis in this environment, for those classifier stems which maintain a perfectivity distinction based on presence or absence of a final /i/, maintenance of the distinction can result in an epenthetic vowel not being realised in the expected environment - see §7.1.2 for details.

- (50) [æɲɪmbɪɕɛp]
 /aɲ-mbi-ɕep/
 3SG.SWING.R.PFV-2SG.OBL-paint
 ‘You paint yourself.’ (PT: IG3-037-A)
- (51) [pɪɲɪŋgɪzɪpɛ]
 /pɪɲ-ŋki-zɪp=a/
 3NSG.SWING.R.PFV-DU.S-spear=PST
 ‘Those two speared (a fish).’ (UNK: 196905-DT-DO1009402)
- (52) [pɪɲɪnɔŋgɔɾpɛ]
 /pɪɲ-ni-ŋ-kurp=a/
 3NSG.SWING.R.PFV-(U)AUG.S>MIN.O-1SG.O-hit=PST
 ‘Those two hit me.’ (JoN: IG3-018-A)
- (53) [æɲiwɛtɛ]
 /aɲ-wat=a/
 3SG.SWING.R.PFV-take=PST
 ‘He took (the fruit) out.’ (RT: 20050521-MC-Cycad-Curlew-Sugarglider)
- (54) [kɪnmɛlɪŋmɛlɪpɪɲiwuri]
 /kɪnmɛl-ŋinali-βɪɲi=wuri/
 3PL.GO.R-1SG.ADJ-now=TOWARDS
 ‘They are coming up to me.’ (PT: IG3-033-B)

In comparison, the next set of examples shows that epenthesis does not occur when the following lexical stem is obstruent-initial (55), nor is it triggered by sonorant-initial morphology occurring further down in the verb (aside from the ADJUNCT example above), such as the AUGMENTED number marker (56) or the FUT tense marker (57). Generally, it does not occur when the following element is an incorporated body part (58), though there are couple of exceptions, both of which contain rhotic-final classifier stems (59).

- (55) [æpβedujə]
 /ap-βadu=a/
 3SG.SWING.R.PFV-push=PST
 ‘He swallowed (it).’ (PT: IG3-032-B)
- (56) [ŋumbijəŋnimni]
 /ŋumbujəŋ-nim=ni/
 1INCL.DU.STAND.IRR=AUG=FUT
 ‘We (INCL) are going to stand up.’ (UNK: 196905-DT-DO1009402)
- (57) [gajæŋni]
 /kajaŋ=ni/
 3SG.STAND.IRR=FUT
 ‘He’s going to stand up.’ (UNK: 196905-DT-DO1009402)
- (58) [æpməŋɖidarja]
 /ap-maŋti-zaɭ=a/
 3SG.SWING.R.PFV-neck-hit.PL=PST
 ‘He hit him on the neck.’ (PT: IG3-026-A)
- (59) [kuriməŋɖipitni]
 /kur-maŋti-pit=ni/
 3SG.HANDS.IRR-neck-wash=FUT
 ‘He’s going to wash my neck.’ (RK: 197207-MW-M02004363A)

A less common type of epenthesis occurs when the classifier root contains a nasal coda. This occurs in the R.IPFV forms of the PIERCE, CAUSE and PUT classifier stems, which contain the classifier roots /mun/, /din/ and /nkin/ respectively. When one of these classifier stems is followed by an OBJECT/OBLIQUE marker which is comprised of just one nasal segment, an epenthetic vowel follows the OBJECT marker (60) - (61).

- (60) [kudinŋimət̪kuli]
 /kudin-ŋ-met=kuli/
 3NSG.CAUSE.R.IPFV-1SG.O-stare=3PL.SIT.R.IPFV
 ‘They were looking at me.’ (PT: IG3-022-A)

- (61) [kumɔŋɲiβeretendi]
 /kumun-ɲ-βarat=andi/
 3SG.PIERCE.R.IPFV-2SG.O-grab=APPR
 ‘He might grab you.’ (PT: IG3-021-B)

Note that this does not occur when the classifier root simply consists of a single nasal segment: in (62) below involving the FEET classifier stem, which contains a single alveolar nasal as its root, the more commonly found post-classifier stem epenthetic vowel is instead realised.

- (62) [ɸirinɲbaɪcni]
 /pirin-ɲ-βac=ni/
 3NSG.FEET.IRR-1SG.O-kick=FUT
 ‘They’re going to kick me.’ (JN: IG3-008-A)

2.3.2 Vowel assimilation and harmony

Vowel assimilation and vowel harmony are often observed in the region between the classifier stem and lexical stem. In this region, vowels (including epenthetic vowels (§2.3.1)) optionally assimilate in backness with a following velar or palatal consonant (63) - (65).

- (63) [ɲumbunɔgubəkɛ]
 /ɲumbuni-ɣubak=a/
 1INCL.DU.GO.R.PFV-fall=PST
 ‘We fell down.’ (UNK: 196905-DT-DO1009402)

- (64) [nɛwɪɲni]
 /nawu-ɲ=ni/
 2NSG.SIT.IRR-DU.S.INTR=FUT
 ‘You two are going to sit.’ (UNK: 196905-DT-DO1009402)

- (65) [ɲirimɔŋgetni]
 /ɲirim-ɲki-at=ni/
 1NSG.PIERCE.IRR-DU.S-pick.up=FUT
 ‘Us two are going to pick it up.’ (UNK: 196905-DT-DO1009402)

This assimilation in backness can sometimes cause nearby vowels to harmonise (66) - (69). Note that in (68) the vowel which harmonises shifts in both backness and height, while in (69) the vowel preceding the palatal nasal trigger is already high and front, but these qualities now spread to the preceding vowel.²¹

- (66) [pɔmɔŋgijɛ]
 /pimi-ŋki=a/
 3NSG.SAY/DO.R.PFV-DU.S=PST
 ‘Those two said (something).’ (JN: IG3-006-A)
- (67) [pɔlɔnɔŋgɔrɔpɛ]
 /puli-ni-ŋ-kurp=a/
 3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1SG.O-hit=PST
 ‘They hit me.’ (PT: IG3-038-B)
- (68) [ɸimɪŋpɛrmɔgɛŋgijɛ]
 /pam-ŋ-βarmu=kaŋki=a/
 3NSG.PIERCE.R.PFV-DU.S.INTR-give=RECIP=PST
 ‘They gave (glasses) to each other.’ (JJ: RN5-003-B)
- (69) [pɪdɪŋmɔkɔjɛ]
 /padi-ŋ-muku=a/
 3NSG.CAUSE.R.PFV-DU.S.INTR-woman=PST
 ‘Those two women’ (PT: IG3-022-A)

Vowel harmony need not necessarily be triggered by a change in quality in a surrounding vowel: vowels can also simply harmonise with other vowels which appear over morpheme boundaries (70).

- (70) [tɛŋɛnβɛpɛ]
 /zɑ-ŋin-βap=a/
 3SG.MOUTH.R.PFV-1SG.OBL-transfer=PST
 ‘He gave it to me.’ (JoN: IG3-019-A)

21. /padi-ŋ-muku=a/ is an unusual construction which has both verbal and nominal elements. It is discussed in §5.4.3.

Vowel harmony is optional, as is shown by the variability in production (by the same speaker) in (71). This example also shows that in simple verbs, i.e. those which don't contain a lexical stem, vowel assimilation and the resulting harmony occurring in pre-lexical stem slots may be caused by morphology from post-lexical stem slots, such as the ADJUNCT marker (which can also trigger vowel epenthesis (§2.3.1)). This assimilation/harmony would normally be blocked by the lexical stem.

- (71) [ŋimɪŋɛlija]~[ŋumɪŋɛlija]
 /ŋimi-ŋali=a/
 1SG.SAY/DO.R.PFV-3SG.F.ADJ=PST
 'I told her.' (JN: IG3-011-A)

2.3.3 Vowel deletion

Sequences of two vowels are also disallowed in Marri Ngarr (with the exception of the coordinating conjunction /ii/ (§3.1.9)). These sequences are uncommon because vowel-initial words are rare, but when they do occur across morpheme boundaries, one avoidance strategy is simply to delete one vowel. Examples (72) - (74) show that /i/ and /u/ appear to be deleted in favour of /a/.²²

- (72) [ɸemɪŋgɛtɛ]
 /pam-ŋki-at=a/
 3NSG.PIERCE.R.PFV-DU.S-pick.up=PST
 'Those two picked it up.' (JN: IG3-011-B)

- (73) [kɪlnɪŋmudɛndi]
 /kul-ni-ŋ-mudi=andi/
 3NSG.BUMP.R.IPFV-(U)AUG.S>MIN.O-1SG.O-see=APPR
 'Those two might see me.' (JN: IG3-013-B)

- (74) [ɛmbɛ]
 /ambu=a/
 NEG=ANIM
 'There's no meat.' (JoN: IG3-021-B)

22. An alternate analysis is simply that the first vowel is deleted. I have no data on combinations of /i/ and /u/.

Note that in careful speech, a sequence of a vowel-final element followed by a vowel-initial element is possible, as exemplified in the careful speech example in (75), though these sequences involve a pause between the two elements.²³

- (75) [nɪ̃ ɛmbʊ kɪnɪ̃mbɪθɛŋɸɛlɾɛndi]
 /nɪ̃ ɛmbʊ kɪnɪ̃-mbi-t̪ɛŋβali=andi/
 2SG.PRO NEG 2SG.SWING.R.IPFV-2SG.OBL-forget=APPR
 ‘Don’t you forget!’ (PT: IG3-038-A)

2.3.4 Glide insertion

While in some instances a sequence of two vowels over a morpheme boundary results in the deletion of a vowel (§2.3.3), in other examples the presence of each vowel is maintained and a glide is inserted between the two vowels. Compare the constructions below where in (76) the APPREHENSIVE marker, which is vowel-initial, follows a consonant-final lexical stem and there is no change in the phonology, while in (77), where the same marker follows the vowel-final reciprocal marker, the palatal glide is present in the production.

- (76) [kʊnɪ̃nɪ̃dɪpɛndi]
 /kʊn-ni-ŋ-zɪ̃p=andi/
 3NSG.SWING.R.IPFV-(U)AUG.S>MIN.O-1SG.O-spear=APPR
 ‘Those two might spear me.’ (JN: IG3-014-A)

- (77) [kʊmburɪdɛpɛŋgɪ̃jɛndi]
 /kʊmburi-zap-aŋki=andi/
 1INCL.DU.HANDS.R.IPFV-spear-RECIP=APPR
 ‘We might spear each other.’ (JoN: IG3-034-B)

The quality of the preceding vowel determines which glide is inserted, with front vowels triggering the palatal glide as shown above in (77), while non-front vowels result in the presence of the labial glide (79).

- (78) [kʊŋmɛzʊ]
 /kʊ-ŋin-azu/
 3SG.SIT.R-1SG.OBL-laugh
 ‘He’s laughing about me.’ (RK: 1972-MW-M02004364B)

23. Careful speech is common for some of the speakers on the recordings so some examples in the thesis contain these sequences of vowels on the transcription line.

- (79) [kuwɛzɯ]
 /ku-azu/
 3SG.SIT.R-laugh
 ‘He’s laughing.’

(RK: 1972-MW-M02004364B)

2.3.5 Apical consonant processes

In the pronominal region of the verb, there are two processes which avoid certain types of sequences of apical-initial syllables occurring over a classifier stem + OBJECT/ OBLIQUE/ (U)AUG.S>MIN.O boundary. These processes are discussed below.

2.3.5.1 Voiceless apical stop formation

Voiceless apical stop formation in the pronominal region of the verb is a process which avoids a sequence of a voiced apical stop-initial CV syllable followed by a voiced apical stop/nasal-initial CV(C) syllable, i.e. /di+di/ ~ /di+ni/.²⁴ To prevent this type of sequence being realised, a syllable is deleted and the resulting initial consonant of the syllable is voiceless. Some examples of this process are given below in (80) - (82). Example (83) shows that these sequences are permitted intramorphemically, while (84) shows that this same process does not occur over the classifier stem + lexical stem boundary.

- (80) [ɲɛtɪrjɔkni]
 /ɲadi-dir-cuk=ni/
 1SG.FEET.IRR-2PL.OBL-look.for=FUT
 ‘I’m going to look around for you all.’

(JoN: IG3-026-B)

- (81) [ɲɔtɪdɪθɛŋjɪlɲɪni]
 /ɲudi-didi-ɬaŋ-jil~jil=ni/
 1SG.CAUSE.IRR-2DU.O-ear-REDUP~tell.truth=FUT
 ‘I’m going to teach you two.’

(JoN: IG3-026-B)

- (82) [ɲɛtɪjɔkni]
 /ɲadi-ni-cuk=ni/
 1SG.FEET.IRR-3SG.M.OBL-look.for=FUT
 ‘I’ll look for him.’

(PT: IG3-039-A)

24. I do not have the data to confirm whether this process would also be triggered by a /ni+di/ sequence.

- (83) [kərɪndɪdɪpɪtkuzɪjɛ]
 /kar-(n)didi-pit=kuzi=a/
 3SG.HANDS.R.IPFV-2DU.O-wash=3SG.SIT.R.IPFV=PST
 ‘He was washing you two.’ (JoN: IG3-027-A)

- (84) [kɪdɪdɛrkurkeri]
 /kidi-derkur=kari/
 1NSG.CAUSE.R.IPFV-grind=1NSG.SIT.R.IPFV
 ‘We’re all sitting sharpening (it).’ (PT: IG3-019-A)

Similarly, when a /-di(n)/-final classifier stem is followed by the (U)AUG.S>MIN.O marker /-ni/, both syllables are this time maintained but the first apical consonant again becomes voiceless (85) - (86).

- (85) [ɲɪtɪnɪmbɪðɛŋjɪlɪlɪni]
 /ɲidi-ni-mbi-ɬaŋ-jil~jil=ni/
 1NSG.CAUSE.IRR-(U)AUG.S>MIN.O->2SG.O-ear-REDUP~tell.truth=FUT
 ‘Us two will teach you.’ (PT: IG3-022-A)

- (86) [kɔtɪnɪŋɪmɛtkɛwɪŋɪ]
 /kudin-ni-ŋki-met=kawu-ŋ/
 3NSG.CAUSE.R.IPFV-(U)AUG.S>MIN.O-1INCL.DU.O-stare=3.SIT.R.IPFV-DU.S.INTR
 ‘They are looking at you and me.’ (JoN: IG3-022-A)

2.3.5.2 Apical sonorant manner assimilation

When the 3SG.M.OBL marker /ni-/ follows a classifier root containing an apical sonorant, the apical sonorant of the 3SG.M.OBL marker assimilates in manner with the preceding root consonant. In addition to this manner assimilation, any classifier stem-final vowel is deleted, effectively deleting a syllable. Following classifier stems containing rhotic roots, the 3SG.M.OBL marking form is realised as [zi] (87) (while this is not total manner assimilation, [z] often has a rhotic quality (§2.1.1.3)) or sometimes [ri] and following classifier stems with lateral roots, its form is [li] (88).

- (87) [kɛrɬɪpɪbaɪckuzɪ]
 /kar-ni-pi-bac=kuzi/
 3SG.HANDS.R.IPFV-3SG.M.OBL-head-hold=3SG.SIT.R.IPFV
 ‘He was holding his head in his hands.’ (PT: IG3-038-B)

- (88) [pɛllɪpɪzajɛ]
 /pali-ni-pi-zaɹ=a/
 3SG.BUMP.R.PFV-3SG.M.OBL-head-hit=PST
 ‘He hit himself on the head.’ (PT: IG3-038-B)

In (89) the 3SG.M.OBL marker follows a MOUTH classifier stem which is /ri/-final; however this syllable forms part of the subject marker as the classifier root of the MOUTH classifier stem is morphologically zero. In this case the standard [ni] form of the 3SG.M.OBL marker is realised, suggesting that the alternate forms are only triggered by apical classifier *root* sonorants.

- (89) [ɸiriɪβɛpni]
 /pɪri-ni-βap=ni/
 3NSG.MOUTH.IRR-3SG.M.OBL-transfer=FUT
 ‘They’re gonna give it to him’ (JN: IG3-011-B)

2.3.6 Reduplication

Many lexical verb stems can be reduplicated to convey meanings such as iterativity and durativity (§5.5.1). A handful of nominal forms are also reduplications. When a reduplicable monosyllabic CV or disyllabic lexical stem reduplicates, it exhibits reduplication of the whole stem. The nominal stems with reduplicated forms are never produced unreduplicated in the corpus, and these forms also exhibit full reduplication. In contrast, the majority of reduplicable monosyllabic CVC lexical stems exhibit only partial reduplication. Example (90) shows full reduplication of a monosyllabic CV lexical stem while (91) shows reduplication of a disyllabic lexical stem. These are followed by examples of nominals with reduplicated forms.²⁵

- (90) [kumunɲɛkɛŋgɪkewoɲɛ]
 /kumun-ɲɛ~ɲɛ-kəŋki=kawu-ŋ=a/
 3NSG.PIERCE.R.IPFV-REDUP~smell-RECIP=3.SIT.R.IPFV-DU.S.INTR=PST
 ‘Those two (dogs) were smelling each other.’ (PT: IG3-023-B)

- (91) [ɲunweleweleɪni]
 /ɲun-wele~wele=ni/
 1SG.GO.IRR-REDUP~hang=FUT
 ‘I’m going to climb (in the trees).’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

25. Note that in reduplicated forms, vowels don’t necessarily adhere to the allophonic rules outlined in §2.1.6, e.g. [ɲɪɪɲɪɪ] ‘tadpole’ contains a tense vowel in word-medial position (which would be word-final position if the form was unreduplicated).

/wukwuk/	[wʊgʷʊk]	‘owl’
/ṭirittirit/	[ṭirittirit]	‘Peewee’
/kunukunu/	[kʊnʊgʊnʊ]	‘old woman’
/ṅiriṅiri/	[ṅiriṅiri]	‘tadpole’

Reduplicated monosyllabic CVC lexical stems generally copy the CV of the stem leftwards for a partial reduplication, as exemplified in (92) - (97). Examples (92) - (94) suggest that one reason for partial, rather than full reduplication is avoidance of peripheral-coronal clusters (Hamilton 1996, pp. 109–113; Mansfield 2019, p. 48), while the reduplicated forms in (95) - (97) appear to avoid clusters with an initial /ɹ/ segment. Both of these characteristics are also avoided in clusters in monomorphemic words (§2.2.2). Examples (98) - (100) show fully reduplicated CVC lexical stems, which contain coronal-initial clusters.

- (92) [ṅiṅzʊzʊpe]
 /ṅiṅ-zʊp~zʊp=a/
 1SG.SWING.R.PFV-REDUP~skin=PST
 ‘I skinned it.’ (PT: IG3-025-A)
- (93) [dɛṅjɨjʊkɛ]
 /da-ṅ-jʊk~jʊk=a/
 3SG.HEAT.R.PFV-1SG.O-REDUP~burn=PST
 ‘I got burnt.’ (PT: IG3-025-B)
- (94) [gʊnmɛl-ṭɛṭɛk]
 /kʊnmɛl-ṭak~ṭak/
 3PL.GO.R.IPFV-REDUP~build
 ‘They’re building (a house).’ (JN: IG3-008-A)
- (95) [kɛndidiṭɛṭɛɹni]
 /ka-ndidi-zaɹ~zaɹ=ni/
 3SG.SWING.IRR-2DU.O-REDUP~hit.PL=FUT
 ‘He’s going to beat up you two.’ (JN: IG3-007-A)

- (96) [ŋeʝimbɪbɪɫni]
 /ŋaci-mbi-biɫ~biɫ=ni/
 1SG.COOK.IRR-2SG.OBL-REDUP~cook=FUT
 ‘I’ll cook it for you.’ (PT: IG3-024-B)
- (97) [ŋimbɔβɔɫkeŋijɛ]
 /ŋin-βuɫ~βuɫ=kaŋi=a/
 1SG.FEET.R.IPFV-REDUP~break=1SG.SIT.R.IPFV=PST
 ‘I was breaking it up (with my feet).’ (PT: IG3-016-A)
- (98) [ʔediβaɪcβɛɾɛ]
 /padi-βac~βac=a/
 3NSG.CAUSE.R.PFV-REDUP~jump=PST
 ‘They jumped down.’ (JN: IG3-010-A)
- (99) [wɛnijɛtjɛɾɛ]
 /wani-cet~cet=a/
 3SG.GO.R.PFV-REDUP~sit=PST
 ‘They migrated (there).’ (JoN: 20000923-MC-Ancestors-to-Nama)
- (100) [ŋirɪmpɪlɪŋɪm]
 /ŋidin-pil~pil=ŋin/
 1SG.CAUSE.R.PFV-REDUP~roll=1SG.GO.R.IPFV
 ‘I’m rolling it along.’ (JoN: IG3-025-B)

While the two avoidance strategies described above account for most of the partial reduplication data, there are two partially reduplicated lexical stems, shown in (101) - (102), which involve peripheral-peripheral clusters. In Marrithiyel, peripheral-peripheral clusters in reduplicated stems are optionally reduced, though this type of cluster can be seen in nominal reduplications (Green 1989, pp. 42–43); this same type of cluster reduction strategy is also present in Marri Ngarr. Another example shows partial reduplication of another lexical stem, /-zuc-/ ‘pick.up.PL’, which is unaccounted for based on the analysis above: this lexical stem is both coronal obstruent-initial and -final.

- (101) [kɛnɪβɛpɛka]
 /kani-pek~pek=a/
 3SG.GO.R-REDUP~make.track=PST
 ‘It made tracks.’ (JoN: IG3-030-A)
- (102) [kɔβɛβɛpɛŋkuli]
 /ku-βap~βap-kaŋki=kuli/
 3NSG.MOUTH.R.IPFV-REDUP~transfer-RECIP=3PL.SIT.R.IPFV
 ‘They’re giving things to each other.’ (JJ: RN5-003-B)
- (103) [wɛrɪzɔzɔɪɔ]
 /wari-zuc~zuc/
 2SG.GO.IRR-REDUP~pick.up.PL
 ‘You pick them all up.’ (JN: IG3-014-A)

Realisation of the onset consonants of the stem and reduplicated element often vary in manner and voicing.

/zɪp~zɪp/ [zɪtɪp] ~ [tɪtɪp] ~ [dɪtɪp]
 REDUP~bite
 /pɪl~pɪl/ [βɪlpɪl] ~ [pɪlpɪl]
 REDUP~roll
 /bɪɭ~bɪɭ/ [φɪbɪɭ] ~ [bɪbɪɭ]
 REDUP~cook

2.4 Summary

This chapter has provided a description of the phonology of Marri Ngarr. In some ways the Marri Ngarr phonological system follows general patterns found across Australian languages, while in other ways it exhibits unique characteristics within the Australian context. In terms of the segmental inventory the obstruents are of most interest, with two series of stops contrasting in both word-initial and medial positions. Contrastive stop series are found across many non-Pama-Nyungan languages though it is rare to find the contrast in word-initial position. Marri Ngarr also exhibits phonemic fricatives, which are uncommon in Australian languages, though they are frequently found in other Western and Southern Daly languages. Considering syllable structure, Marri Ngarr conforms to patterns across Australian languages in its dispreference of peripheral - coronal clusters, but stands out as one of the few Australian languages which permits onset clusters; onset clusters are not only quite rare across Australian languages but also are not found in other Daly languages. In terms of morphophonemic processes, Marri Ngarr

exhibits common processes such as vowel epenthesis, deletion and harmony, particularly in the pronominal marking zone of the verb. Other less common processes focus on avoiding sequences of apical-initial consonants in the pronominal region of the verb.

The next chapter moves on from characteristics of the phonology to identifying the various parts of speech in Marri Ngarr, as well as providing a brief overview of the pronominal agreement marking system, which is the primary method used to encode grammatical relations.

Chapter 3

Grammatical overview

This chapter provides a broad grammatical overview of Marri Ngarr, focusing on parts of speech, the encoding of grammatical relations and argument structure. In §3.1 I identify the various parts of speech in the language and discuss the diagnostics I use to identify them. These parts of speech are generally distinguished on the basis of morphosyntactic properties. The most morphologically complex part of speech is the verb, which has a great number of inflectional and derivational possibilities (§3.1.1) and is often comprised of two predicative elements (§3.1.1.1). Elements which can occur in the NP take minimal morphology and are in part distinguished on syntactic grounds. These NP elements are discussed in §3.1.2 - §3.1.5. The remaining parts of speech including adverbs, prepositions, conjunctions, interjections and particles/clitics, are detailed in §3.1.7 - §3.1.11. In §3.2 I provide an overview of pronominal agreement marking which is the primary method for expressing grammatical relations in the clause. In this section I also give definitions of various terms related to grammatical relations and argument structure which are used throughout the thesis.

3.1 Parts of speech

3.1.1 VERB

1	2	3	4	5	6	7	8	9	10	11	12
CLASSIFIER STEM	DUAL SUBJECT/ (U)AUG SUBJ>MIN.O- OBJECT/OBLIQUE	body part noun/ APPLICATIVE	lexical stem	ADJUNCT	MALEFACTIVE	adverbial	RECIPROCAL	SERIAL CLASSIFIER	DUAL SUBJECT	AUGMENTED ARG	TENSE/MOOD

Table 3.1: Simplified verb template

Verbs are straightforward to identify in Marri Ngarr. Minimally, they consist of a classifier stem; however it is common for verbs to be bipartite, meaning they are comprised

of both a classifier stem and lexical stem (see §3.1.1.1 for an overview of both of these elements). Both types of verb often also require a TAM enclitic though this depends on the TAM of the classifier stem and the clause type (see §7.2 for details). The examples provided below show the classifier stem as the sole predicational element in the verb (104) and classifier stem and lexical stem forming a bipartite verb (105), with the FUTURE tense enclitic attached to both verbs.

- (104) **ŋawuni**
ŋawu=ni
1SG.SIT.IRR=FUT
 ‘I’m going to sit down.’ (JN: IG3-012-B)

- (105) **ŋawumuriŋni**
ŋawu-muriŋ=ni
1SG.SIT.IRR-talk=FUT
 ‘I’m going to talk.’ (JN: IG3-010-B)

These two types of verbs are optionally inflected with various other morphological elements as shown in the simplified verb template above in 3.1.²⁶ Most of these optional elements are grammatical affixes and clitics which only attach to verbs. A select set of lexical items can also be incorporated into the verb. These grammatical and lexical elements which only attach to verbs can, therefore, be used to identify a verb. (TAM enclitics and the AUGMENTED number enclitic */=nim/* are excluded from being verbal diagnostic elements as they can also attach to other parts of speech). A brief outline of the diagnostic verbal morphology is provided here. Individual elements of the verb are explored in depth in chapters 5 to 8.

Types of grammatical information which can be encoded on the verb include argument features, TAM, reflexivity and reciprocity, valency changing morphology and a malefactive marker. These inflectional elements are illustrated in the following set of examples, with all examples featuring pronominal agreement marking and TAM marking. A MALEFACTIVE marker is also attached to the verb in (106), an applicative is present in (107), (108) contains a RECIPROCAL marker (and a serial classifier which encodes TAM information) and (109) features an argument NUMBER marker.

- (106) **pamudipundatŋinaliŋaja**
pam-widi-pundat-ŋinali-ŋa=ja
3NSG.PIERCE.R.PFV-3DU.O-take-1SG.ADJ-MAL=PST
 ‘They took those two kids away from me.’ (PT: IG3-022-B)

26. The classifier stem slot can be further segmented, as discussed in §5.2.

(107) **naŋji adimiwura**
 nanci adi-**mi**-wur=a
 THING 3SG.CAUSE.R.PFV-**APPL**-return=PST

‘She returned it.’ (JJ: RN5-001-A)

(108) **kaɖi kirimuŋintuɖutkaŋgikariŋ**
 kadi kirimun-ŋiŋ-zut~zut-**kaŋki**=kari-ŋ
 1DU.PRO 1NSG.PIERCE.R.IPFV-1DU.OBL-REDUP~poke-**RECIP**=1NSG.SIT.R.IPFV-DU.S.INTR

‘Us two fellas kept poking each other.’ (PT: IG3-023-B)

(109) **niwiŋ ji φuliŋgumalatbata**
 niwiŋ ji puli-**ŋki**-malatbat=a
 3DU.PRO DEM.3 3NSG.BUMP.R.PFV-**DU.S**-split=PST

‘Those two fellas split it up.’ (JN: IG3-011-B)

Almost all lexical items which can be incorporated into the verb are body part nouns. These bound body part nouns also function as independent nouns outside of the verb (110).

(110) a. **kuriŋperipitni**
 kur-ŋ-**peri**-pit=ni
 3SG.HANDS.IRR-1SG.O-**foot**-wash=FUT

‘He’s going to wash my foot.’ (HK: 197207-MW-M02004362B))

b. **ŋaniβuɖa** **peri ŋarin**
 ŋani-βuɖ-a **peri** =ŋarin
 1SG.FEET.R.PFV-break-PST **foot** =INSTR

‘I broke it with my foot.’ (PT: IG3-019-A)

One adverbial element, /βiŋi/ can either be incorporated (111a) or alternately function externally as an independent adverb (111b).

(111) a. **niwiŋ ŋata kuŋginkiðatpiŋikawiŋ**
 niwiŋ ŋata kunkin-ŋki-tat-**βiŋi**=kawu-ŋ
 3DU.PRO house 3NSG.PUT.R.IPFV-DU.S-put.down-**now**=3.SIT.R.IPFV-DU.S.INTR

‘Those two are building a house.’ (JoN: IG3-024-B)

b.	wudi	piŋi	wanijela	ga
	wudi	piŋi	wani-jel=a	=ka
	WATER	now	3SG.GO.R.PFV-rain=PST	=TOP

‘It was raining.’

(CM: 1982-CM-Tree-Dreaming)

3.1.1.1 CLASSIFIER STEM and LEXICAL STEM

The verbal classifier system is comprised of twenty classifier stems, which are formally and semantically distinct. A detailed overview of the information encoded on the classifier stem and its various functions is given in §5.2, while here I provide a brief summary of this element. A subset of eight of these twenty classifier stems can function as verbs in their own right. Each classifier stem inflects for SUBJECT PERSON and NUMBER, as well as TAM (with some variation in possible TAM and NUMBER categories across classifier stems) resulting in around 360 possible forms (though syncretism is common, particularly REALIS PERFECTIVE and IRREALIS forms matched for SUBJECT features). The classifier stem also contributes semantic information to the verb, which I explore in detail in §5.4. Each classifier stem also has an inherent transitivity value (though this is not marked inflectionally - see §5.3.3.1 for details). Similar verb classifier systems are found in related Western and Southern Daly languages (Green 1989, 72–118, ch.6; Ford 1998, ch.5; Reid 1990, 104–6, ch.4; Nordlinger 2015, pp. 498–501) as well as further afield in Jaminjung (Schultze-Berndt 2000), Wagiman (Wilson 1999) and various other northern Australian languages (see McGregor (2002) for detailed descriptions of several Australian languages which use verb classifier systems).²⁷ The classifier stem paradigms are given in Appendix A and an example paradigm is provided below for the PIERCE classifier stem in table 3.2.²⁸

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbumun/	/ɲumbum/	/ɲumbum/
	1	/ɲumun/	/ɲam/	/ɲum/
SG	2	/kinimun/	/ɲinim/	/am/
	3	/kumun/	/am/	/kum/
	1	/kirimun/	/ɲirim/	/ɲirim/
NSG	2	/kinimun/	/nam/	/nam/
	3	/kumun/	/pam/	/pirim/

Table 3.2: PIERCE classifier stem forms

When the classifier stem is the only element in the verb it contributes all the verbal semantic information. When it forms part of a bipartite construction, it often plays more of a classificatory semantic role while the lexical stem provides the majority of

27. These systems differ across languages with respect to whether the classifier stem (or ‘inflecting verb’) and other verbal element (often referred to as the ‘coverb’) form one phonological word, or not.

28. The classifier stem paradigms of Marri Ngarr were originally documented in Green (1993a). My analysis of the system differs only slightly. See Appendix A for details.

the semantic information about the event.²⁹ A classifier and lexical stem combination is illustrated in (112).

- (112) **pundi amunɟuta**
 pundi **am-ŋ-zut=a**
 finger 3SG.PIERCE.R.PFV-1SG.O-poke=PST
 ‘He poked me with his finger.’ (PT: IG3-037-B)

Unlike the classifier stem, the lexical stem does not inflect for argument or TAM features, though it is regularly reduplicated (§5.5.1). In the Marri Ngarr corpus there are around 100 lexical stems. Most lexical stems are bound elements, only found in bipartite verbs in combination with a classifier stem (a handful of exceptions to this generalisation are discussed in §5.5).

3.1.2 NOMINAL

The nominal part of speech comprises elements which refer to entities (113), or modifiers of entities (i.e. quantifiers/qualifiers) (114). Though in languages like English entity-denoting elements are categorised as NOUN while quantificational/qualificational modifiers fall into the ADJECTIVE category, there is not strong enough morphosyntactic evidence to distinguish two separate parts of speech in Marri Ngarr (see discussion in §4.3), as is often the case in Australian languages (Dixon 1980, p. 272).

- (113) **niŋ ŋata ŋiniɟata**
 niŋ ŋata ŋini-ɟat=a
 2SG.PRO house 2SG.PUT.R.PFV-put.down=PST
 ‘You built a house.’ (PT: IG3-024-B)

- (114) **kijβap kawijɟimburi aŋatin ŋali**
 kij-βap kawu-ŋ-cimburi a=ŋatin ŋali
 3SG.SWING.R.IPFV-transfer 3.SIT.R-DU.S.INTR-eat ANIM=raw REP
 ‘He puts down (the meat) and they eat raw meat together.’
 (JN: 20090226-MC-WaterRat)

Entity-denoting nominals occur in the Head position in the NP (see §4.1.1 for the NP template), and can optionally be preceded by a nominal classifier. In (115) we see the nominal /*tindiŋ*/ which is preceded by the nominal classifier for language/speech.

29. Note, however, that it is often difficult to tease apart the semantic contribution of each of these elements.

- (115) *naŋ mari tindiŋ meŋina*
naŋ mari tindiŋ me-ŋin=a
 3SG.M.PRO LANG secret 3SG.SAY/DO.R.PFV-1SG.OBL=PST

‘He told me a secret.’

(PT: IG3-035-A)

As free nominal classifiers can also form an NP on their own, sometimes the distinction between a free classifier and a nominal with generic reference is not clear-cut. Below we see the nominal classifier for water/drinkable liquids classifying the nominal /*ti*/ in (116),³⁰ while in (117) below the same form is used as a nominal which refers to the entity ‘water’. §4.2.3 discusses some strategies to discern the differences between these two parts of speech.

- (116) *kajabur wudi ti gwu*
kaja-bur wudi ti ku=wu
 3SG.STAND.CMPLX.IRR-COOL WATER tea DEM.2=WU

‘Let it cool down.’

(JoN: IG3-026-A)

- (117) *naŋ ji kwanijibut na wudi*
naŋ ji kwani-jibut na wudi
 3SG.PRO DEM.3 3SG.GO.R.IPFV-SWIM LOC water

‘He was swimming through the water.’

(JoN: IG3-021-A)

Entity-denoting nominals can be followed by modificational nominals or demonstratives. Entity-denoting nominals always precede demonstratives, as shown in (118) below, and modificational nominals almost always do, providing a generally consistent word order distinction between nominal and demonstrative parts of speech. Nominals are also an open class which permits borrowings from languages such as English, while demonstratives form a closed class.

- (118) *kaŋgi ɲumbunweleni ɬawur ar*
kaŋki ɲumbun-wele=ni ɬawur ar
 1INCL.DU.PRO 1INCL.DU.GO.IRR-hang=FUT tree DEM.1

‘We’re going to climb this tree.’

(HK: 1972-MW-M02004364A)

Nominals are distinct from personal pronouns based on the ability of the nominals to be categorised by a nominal classifier: this is generally not possible for personal pronouns. Personal pronouns can also take the AUGMENTED marker =*nim* (see §3.1.4), which never attaches to nominals.

30. The meaning of the form /=*wu*/ (in (116)) is currently unclear. It is, therefore, glossed as ‘=wu’. See §9.5.10 for discussion of this element.

3.1.3 NOMINAL CLASSIFIER

Marri Ngarr has a nominal classification system whereby entities are categorised into one of thirteen semantic categories marked by nominal classifiers (see 4.2.1 for a description of the semantics of these nominal classifiers). The forms of the nominal classifiers are listed in table 3.3 below. Three of these nominal classifiers, MASC, FEM and CHILD, only have bound forms while the remainder have free forms. Two nominal classifiers, ANIM and PLANT, have both a bound and a free form. The bound vs free distinction generally maps to the Dixon (1982, pp. 213–218) ‘noun class’ vs ‘noun classifier’ distinction (see §4.2.2 for details), though I consider both types to be part of the one system in Marri Ngarr. I use the terms ‘bound (nominal) classifier’ and ‘free (nominal) classifier’ respectively to refer to these two distinct types of nominal classifier.

/ma=/	MASC	‘masculine’
/muli=/	FEM	‘feminine’
/je=/	CHILD	‘child’
/awu/, /a=/	ANIM	‘animal/meat’
/miji/, /mi=/	PLANT	‘edible plant’
/napci/	THING	‘thing/tree/residue’
/wudi/	WATER	‘water/drinkable liquid’
/mari/	LANG	‘language/speech’
/wuji/	PLACE	‘place/time’
/cepci/	FIRE	‘fire’
/jeɬi/	WEAP	‘hand-held weapon’
/cendi/	SPEAR	‘spear’
/kwazi/	SSPEAR	‘short spear’

Table 3.3: Nominal classifiers

(based on Ford (2010b, pp. 19–21))

Four morphosyntactic indicators can be used to identify nominal classifiers: (i) position in the NP, (ii) ability for free classifier to co-occur with an entity-denoting nominal, (iii) multiple occurrence in an NP, and (iv) occurrence in negative existential constructions. Firstly, when a free classifier occurs in the NP, it is always positioned at the left edge (119) - (120) (nominal expressions where a personal pronoun precedes a classifier are considered appositional - see §4.1.1).³¹

- (119) wudi ti ɲirbaɬa
 [wudi ti] ɲir-bac=a
 WATER tea 1SG.HANDS.R.IPFV-*hold*=PST

‘I brought the tea.’

(HK: 1972-MW-M02004365A)

31. Personal pronouns in possessive function follow the nominal classifier (§4.4.1); however in these constructions the nominal classifier does not classify the pronoun.

(120) niwiŋ ji kuringipuβuḵkuriŋa
niwiŋ ji kuri-ŋki-βuḵ~βuḵ=kun-ŋ=a
3DU.PRO DEM.3 3NSG.HANDS.R.IPFV-DU.S-REDUP~break=3NSG.GO.R.IPFV-DU.S.INTR=PST
ceŋji ʔawur
[ceŋci ʔawur]
FIRE tree

‘Those two fellas were breaking up firewood.’ (PT: IG3-016-A)

Secondly, a free classifier must be able to co-occur in an NP with, and be immediately followed by an entity-denoting nominal (121).

(121) ceŋapaca naŋji kwaŋku waniweleja
ceŋa-pac=a naŋci kwaŋku wani-wele=ja
3SG.STAND.CMPLX.R.PFV-jump=PST **THING** **stove** 3SG.GO.R.PFV-hang=PST

‘He jumped up onto the stove.’ (HK: 1972-MW-M02004364A)

Additionally, nominal classifiers are the only NP element which can occur more than once in the same NP (122) - (124) (§4.2.2). This is only possible for nominal classifiers which have bound forms. The second occurrence of the nominal classifier in an NP is always the bound form, as in (124).

(122) maβindiβindi magiḷiŋa
ma=βindiβindi ma=kiliŋa
MASC=old.man **MASC=big**

‘Big old man.’ (RK: 197207-MW-M02004362B)

(123) je ipezi je ŋiŋji ŋeŋinparupŋaja
je= jipezi je= ŋiŋci ŋe-ŋin-βarup-ŋa=ja
CHILD= little **CHILD= one** 3SG.COOK.R.PFV-1SG.OBL-run.away-MAL=PST

‘One kid ran away from me.’ (JoN: IG3-033-B)

(124) awu aŋiŋji ŋirindipa
awu a=ŋiŋci ŋiriŋ-zip=a
ANIM **ANIM=one** 1NSG.SWING.R.PFV-spear=PST

‘Us mob speared one animal.’ (PT: IG3-023-B)

Finally, nominal classifiers are the only type of NP element that can co-occur in a negative existential construction. In this type of construction, the nominal classifier follows

the negation particle /*ambu*/ to express a lack of something. Five nominal classifiers are observed in this type of construction, and other types of NP elements are not observed in this environment in the corpus.³²

- (125) *jin* *ambu mi*
jin *ambu =mi*
 1SG.PRO NEG =PLANT
 ‘I’ve got no tobacco.’ (PT: IG3-015-B)

- (126) *amba*
ambu=a
 NEG=ANIM
 ‘There’s no meat.’ (JoN: IG3-021-B)

Nominal classifiers are discussed in more detail in §4.2.

3.1.4 PERSONAL PRONOUN

Personal pronouns encode person, number and clusivity information of their referents. A table of personal pronoun forms is given below in 3.4.

		SG	DUAL	PAUCAL	PLURAL
1INCL	-	<i>kaŋki</i>	<i>kaŋki</i>	<i>kaŋki=nim</i>	
1		<i>jin</i>	<i>kadi</i>	<i>kadi=nim</i>	<i>cer</i>
2		<i>nij</i>	<i>nadi</i>	<i>nadi=nim</i>	<i>ner</i>
3	MASC	<i>naŋ</i>	<i>niwiŋ</i>	<i>niwiŋ=nim</i>	<i>niwir</i>
	FEM	<i>ŋa</i>			

Table 3.4: Personal pronouns

When functioning as the possessor in possession constructions, personal pronouns always occupy the right edge of the NP (127), while elsewhere they are consistently positioned at the left edge of a nominal expression (128). In this left-edge position the personal pronoun is analysed as forming a separate NP in apposition to a co-referential NP which follows it. See §4.1.1 for further details.

- (127) *kajawur* *na muku naŋ*
kaja-wur *na [muku naŋ]*
 3SG.STAND.CMPLX.IRR-return LOC woman 3SG.M.PRO
 ‘He returned to his wife.’ (JN: 20090226-MC-WaterRat)

32. It is unclear how other types of nominals are negated as no alternate negation construction is observed in the corpus for nominals.

(128) niwiŋ wacen cicuk ari pamuŋgiŋaja
 [niwiŋ] [wacen cicuk ari] pam-ŋki-ŋa=ja
 3DU.PRO dog two DEM.1 3NSG.PIERCE.R.PFV-DU.S-smell=PST
 ŋiŋiŋali
 ŋiŋciŋali
 something

‘These two dogs smelt something (different)’ (PT: IG3-023-B)

Personal pronouns also form part of a particular type of possession construction which expresses reflexivity. This involves the pronoun following the body part noun /*pundi*/ ‘hand’ (Preston 2012, pp. 74–6). As illustrated in (129) the features of the pronoun must agree with the features of the reflexive participant.³³

(129) a. ŋa muli ji kariŋpitkuŋi
 ŋa muli= ji kar-ŋ-pit=kuŋi
 3SG.F.PRO FEM= DEM.3 3SG.HANDS.R.IPFV-3SG.F.OBL-wash=3SG.SIT.R.IPFV
 pundi ŋa
 pundi ŋa
 hand 3SG.F.PRO

‘That woman was washing herself.’ (PT: IG3-038-B)

b. naŋ ma ji arziŋpita pundi
 naŋ ma= ji ari-ni-pit=a pundi
 3SG.M.PRO MASC= DEM.3 3SG.HANDS.R.PFV-3SG.M.OBL-wash=PST hand
 naŋ
 naŋ
 3SG.M.PRO

‘He washed himself.’ (JoN: IG3-038-B)

Personal pronouns are the only part of speech beside verbs which can host the AUGMENTED marker /=*nim*/ (also seen attaching to the verb in (130) below).

(130) naŋnim ma annimbir ku namuŋgiparatnim
 nadi=*nim* ma= annimbir ku nam-ŋki-βarat=*nim*
 2DU.PRO=AUG MASC= three DEM.2 2NSG.PIERCE.IRR-DU.S-grab=AUG

‘You three fellas grab him.’ (PT: IG3-018-A)

Personal pronouns are discussed in further detail in §4.4.1.

33. This type of construction is normally glossed as REFL in the thesis.

3.1.5 INTERROGATIVE/INDEFINITE PRONOUN

Interrogative/indefinite pronouns are used to express a lack of knowledge about something. In interrogative function, these pronouns have general semantics equivalent to English ‘what’, ‘who’, ‘when’, and ‘where’, as shown for two of these meanings in (131) - (132a). Attachment of the DATIVE enclitic to the interrogative form /*cipe*/ ‘what’ renders the meaning ‘why/some reason’ (132b).

- (131) *nin ga φindi kandija cujawu*
nɪŋ =ka βindi kandi=ja cuja=wu
 2SG.PRO =TOP WHERE 2SG.SIT.R=PST yesterday=WU

‘Where were you sitting yesterday?’ (JoN: IG3-019-B)

- (132) a. *nadi cipe kindiringibac*
nadi cipe kindir-ŋki-bac
 2DU.PRO WHAT 2NSG.HANDS.R.IPFV-DU.S-hold

‘What have you two got?’ (JoN: IG3-018-A)

- b. *nɪŋ ga jipe ni kuwu kinijeβilek*
nɪŋ =ka cipe =ni ku=wu kinije-βilek
 2SG.PRO =TOP WHAT =DAT DEM.2=WU 2SG.STAND.2.R.IPFV-stand

‘Why are you standing up?’ (JoN: IG3-019-B)

As well as these elements with general semantics, a suffix /-*mbe*/ combines with a handful of nominals in the corpus, mostly nominal classifiers, and usually forms a ‘what kind of X’ interpretation (but is also occasionally used to form ignorative readings) (133).

- (133) a. *mimbe ari wu*
miji-mbe ari =wu
 PLANT-WH DEM.1 =WU

‘What’s this food here?’ (HK: 197207-MW-M02004363A)

- b. *θawurmbe juwu*
ɬawur-mbe ji=wu
 tree-WH DEM.3=WU

‘What kind of tree is that?’ (JoN: IG3-021-B)

In interrogative function the pronoun can be substituted for an NP in a declarative construction (134) - (135).

(134) a. *niŋ ga cipe kindirbac*
niŋ =ka cipe kindir-bac
 2SG.PRO =TOP WHAT 2SG.HANDS.R.IPFV-*hold*
 ‘What have you got?’ (PT: IG3-015-B)

b. *jin ciβaki ŋalpu ŋirbackaŋi*
jin [ciβaki ŋalpu] ŋir-bac=kaŋi
 1SG.PRO *tobacco many* 1SG.HANDS.R.IPFV-*hold*=1SG.SIT.R.IPFV
 ‘I’ve got lots of tobacco.’ (JoN: IG3-031-B)

(135) a. *naŋjimbe ari wu*
naŋci-mbe ari =wu
 THING-WH DEM.1 =WU
 ‘What’s this?’ (HK: 197207-MW-M02004363A)

b. *naŋji wedi ari wu*
naŋci wedi ari =wu
 THING *paperbark* DEM.1 =WU
 ‘This is paperbark.’ (ET: 20150203-JM-ET)

The pronoun is immediately followed by the epistemic particle /*meriŋ*/ (§9.5.2) for an ignorative reading (136) or is immediately preceded by the negator /*ambu*/ (§9.5.4) for a negative indefinite reading (137).

(136) a. *ja φindi meriŋ kwani majiwu*
ja βindi meriŋ kwani ma=ji=wu
 hey WHERE MIGHT 3SG.GO.R MASC=DEM.3=WU
 ‘I don’t know where he’s going.’ (JoN: IG3-021-B)

b. *awumbe meriŋ ajuwu*
awu-mbe meriŋ a=ji=wu
 ANIM-WH MIGHT ANIM-DEM.3=WU
 ‘I don’t know what kind of animal that is.’ (JoN: IG3-021-B)

(137) a. *ma jiambu cipe kulmudi lijik*
ma=jiambu cipe kul-mudi lijik
 MASC= DEM.3 NEG WHAT 3SG.BUMP.R.IPFV-*see* nothing
 ‘That bloke, he can’t see anything.’ (JoN: IG3-016-A)

b. *ambu* *ϕindiza* *ɲin* *wuji* *niɲɲi*
ambu *βindi=za* *ɲin* *wuji* *ɲiɲci*
 NEG WHERE=AWAY 1SG.GO.R PLACE one

‘I’m not going anywhere.’

(PT: IGe-021-A)

Interrogative/indefinite pronouns are further explored in §4.4.2.

3.1.6 DEMONSTRATIVE

Demonstratives can function as pronouns, nominal modifiers or adverbs. As pronouns, they function alone as NPs to deictically refer to entities (138) - (139) while as adverbs they deictically refer to locations (140). The pronoun function of demonstratives can also be distinguished morphologically from their adverbial function in that as pronouns they are able to take bound nominal classifiers (141), but this is not possible for demonstrative adverbs.

(138) *amat* *ari*
am-at *ari*
 2SG.PIERCE.IRR-pick.up DEM.1

‘Pick up this one.’

(PT: IG3-035-A)

(139) *kiɲɲi* *ji* *na* *θawur*
kiɲci *ji* *na* *ɬawur*
 3SG.HANG.R.IPFV DEM.3 LOC tree

‘It’s hanging in the tree.’

(JoN: IG3-033-B)

(140) *naɲ* *ji* *kuzi*
naɲ *ji* *kuzi*
 3SG.M.PRO DEM.3 3SG.SIT.R

‘He’s sitting there.’

(HK: 197207-MW-M02004363A)

(141) *ma* *ji* *ga* *kipiɬerkni*
ma= *ji* =*ka* *kipi-ɬerk=ni*
 MASC= DEM.3 =TOP 3SG.TIE.IRR-tie.up=FUT

‘That fella’s gonna tie him up.’

(PT: IG3-015-B)

When functioning as modifiers, demonstratives almost always appear at the right edge of the NP, always following an entity-denoting nominal and almost always following any

modifying nominal, as in (142). Demonstratives are discussed further with regard to their function as deictics in §4.5 and their possible function as determiners in §4.1.1.

- (142) wacen cicuk ji kumunepekangikungijan
 wacen cicuk ji kumun-*ne~ne*-kan_{ki}=kun_kijan
 dog two DEM.3 3NSG.PIERCE.R.IPFV-REDUP~SMELL-RECIP=3DU.STAND.R.IPFV
 ‘Those two dogs are smelling each other.’ (PT: IG3-039-A)

3.1.7 ADVERB

Adverbs are lexical elements which provide additional information about the predicate, but are not part of the predicate’s argument structure. The adverbs observed in the corpus are presented in table 3.5 below.

	Adverb	English gloss
Temporal	/jeŋi/	‘today’
	/cuja/	‘yesterday’
	/niciŋani/	‘morning/tomorrow’
	/nici/	‘night time’
	/mundak (naja)/	‘previously/long time ago’
	/jeŋijen (naja)/	‘before’
	/wacki/	‘later’
	/βiŋi/ ~ /-βiŋi-/	‘now’
	/wuʔa/	‘already’
Quantificational	/warijali/	‘always’
	/ŋalpu/	‘many times’
	/jipezi/	‘a little while’
	/kila/	‘a lot’
	/ŋiŋci/	‘once’
Demonstrative	/cicuk/	‘twice’
	/ar(i)/	DEM.1
	/ku/	DEM.2
	/ji/	DEM.3
	/kan/	ANAPH.DEM
	/(a)ŋar/	PROX

Table 3.5: Adverbs

Adverbs are freely ordered with respect to the verb and other clausal elements, as illustrated in (143).

- (143) a. **cuja kadi wu ɲirijɛŋgiwura**
cuja kadi =wu ɲirija-ŋki-wur=a
yesterday 1DU.PRO =WU 1NSG.STAND.CMPLX.R.PFV-DU.S-return=PST
 ‘We two got back yesterday.’ (JoN: IG3-019-B)
- b. **cer cuja ɲiriminija**
cer cuja ɲirimi-ni=ja
1PL.PRO yesterday 1NSG.SAY/DO.R.PFV-3SG.M.OBL=PST
 ‘We told him yesterday.’ (JN: IG3-006-A)
- c. **naŋ tʃabaja cuja**
naŋ za-ba=ja cuja
3SG.M.PRO 3SG.MOUTH.R.PFV-come=PST yesterday
 ‘He came yesterday.’ (RK: 1972-MW-M02004365A)

Adverbs can be distinguished from nominal elements and verbs by their inability to take nominal or verbal morphology. Some adverbs can take TAM (144a) and/or directional (145a) enclitics (often with no discernable change in meaning, cf. (144b) and (145b)); however clitics are not limited in attachment to any particular part of speech (§7.2 and §9.5.1). Adverbs can be distinguished from particles due to their freedom of movement in the clause, with particles being more restricted in their clausal position (see §3.1.11).

- (144) a. **naɖi ɲutidiɕaŋjiljilni wacki**
nadi ɲudi-didi-ɕaŋ-jil~jil=ni wacki
2DU.PRO 1SG.CAUSE.IRR-2DU.O-ear-REDUP~tell.truth=FUT later
ni
=ni
=FUT
 ‘I’m gonna teach you two fellas later.’ (JoN: IG3-026-B)
- b. **ner mannimbir gu wacki ɲutirɕaŋjiljilni**
ner ma=annimbir ku wacki ɲudi-dir-ɕaŋ-jil~jil=ni
2PL.PRO MASC=three DEM.2 later 1SG.CAUSE.IRR-2PL.O-ear-REDUP~tell.truth=FUT
 ‘I’m gonna teach you three fellas later.’ (JoN: IG3-026-B)
- (145) a. **wuɕa ɲanan ɲariwidicwidiɕa**
wuɕa =ɲanan ɲari-widic~widic=a
already =SOURCE 1SG.HANDS.R.PFV-REDUP~shake=PST
 ‘I already shook it.’ (HK: 1972-MW-M02004365A)

- b. wuɟa ɲariɬadipita
 wuɟa ɲari-zadi-pit=a
 already 1SG.HANDS.R.PFV-back-wash=PST
 ‘I washed his back already.’ (HK: 197207-MW-M02004362B)

Adverbs can be categorised semantically into three types: temporal, quantificational, and demonstrative. The most frequently type of adverb in the corpus is the type which provides temporal information. These adverbs position an event temporally with respect to a reference time, as in (146a) and (146b).

- (146) a. nicijani ɲabirni
 nicijani ɲa-biɬ=ni
 tomorrow 2SG.COOK.IRR-cook=FUT
 ‘Are you going to cook it tomorrow?’ (Jng: 196905-DT-DO1009402)
- b. ɲanimujiwina jeɲijena
 ɲani-mujiwin=a jeɲijen=a
 1SG.GO.R.PFV-scared=PST before=PST
 ‘I was frightened before.’ (PT: IG3-021-A)

While quantifiers and adjectives generally operate in the nominal domain as entity modifiers, there are a handful of examples which show that a subset of quantifiers and adjectives can also function as adverbs, i.e. event quantifiers (147). In this usage they are never observed co-occurring with any nominal morphology.

- (147) a. jeɲi ɲalpu ɲilɬeɲɲija
 jeɲi ɲalpu ɲil-zɬɬ~zɬɬ=kaɲi=ja
 WEAP many 1SG.BUMP.R.IPFV-REDUP~hit.PL=1SG.SIT.R.IPFV=PST
 ‘I punched him a few times.’ (JoN: IG3-032-A)
- b. ɲiriɲintɪɪpkaɲija cikuk
 ɲiri-ɲin-zɪp~zɪp=kaɲi=ja cikuk
 1SG.HANDS.R.IPFV-1SG.OBL-REDUP~bite=1SG.SIT.R.IPFV=PST two
 ‘I pinched myself twice.’ (PT: IG3-035-B)
- c. kuguk kajan jiperi nimin
 kuyuk kajaɲ jipezi nimin
 wait 3SG.STAND.IRR little still
 ‘Leave it (to boil) for a while.’ (JoN: IG3-023-A)

- d. niwir ma ji cendi kila kumudirikaŋgi
 niwir ma= ji cendi kila kumu-diri-kaŋki
 3PL.PRO MASC= DEM.3 SPEAR big 3NSG.SAY/DO.R.IPFV-fight-RECIP
 ‘That mob are having a big fight with spears.’ (PT: IG3-033-B)

Demonstratives can function as nominal modifiers or pronouns in the NP as described in §4.5, but also function as adverbs encoding locative information about the event. The three demonstrative adverbs in (148) contrast deictic information.

- (148) a. jin ar kaŋi
 jin ar kaŋi
 1SG.PRO DEM.1 1SG.SIT.R
 ‘I’m sitting here.’ (HK: 197207-MW-M02004363A)
- b. niŋ ku kandi
 niŋ ku kandi
 2SG.PRO DEM.2 2SG.SIT.R
 ‘You’re sitting there.’ (HK: 197207-MW-M02004363A)
- c. naŋ ji kuzi
 naŋ ji kuzi
 3SG.M.PRO DEM.3 3SG.SIT.R
 ‘He’s sitting there.’ (HK: 197207-MW-M02004363A)

The adverb /βiŋi/ has an incorporated form /-βiŋi-/ which attaches to the verb following the lexical stem. The independent form is illustrated in (149a) while the incorporated form is given in (149b).³⁴

- (149) a. caŋaφarbura βiŋi ŋulgudakni
 caŋa-bur~bur=a βiŋi ŋul-yudak=ni
 3SG.STAND.CMPLX.R.PFV-REDUP~COOL=PST now 1sg.bump.irr
 ‘It’s cooled down, I’ll drink it.’ (JoN: IG3-031-B)
- b. ti ku kidibuβiŋikwani na ceŋji
 ti ku kidi-bu-βiŋi=kwani na ceŋci
 tea DEM.2 3SG.HEAT.R.IPFV-heat-now=3SG.GO.R.IPFV LOC fire
 ‘That tea’s heating up by the fire.’ (PT: IG3-025-B)

34. The meaning of this element is unclear. While currently glossed as ‘now’, an initial hypothesis is that it may indicate a change of state from some earlier time.

3.1.8 PREPOSITION

The preposition /na/~ni/ heads a prepositional phrase and takes one or more nominal elements as a complement. Its locative meaning is quite general and partly determined by the semantics of the verb. Its semantic range is demonstrated below in (150) - (154).

- (150) nin na ɬawur jin na βirak
 niŋ na ɬawur jin na βirek
 2SG.PRO LOC tree 1SG.PRO LOC ground

‘You in the trees and me on the ground.’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

- (151) kudiɬerkawuni na ceŋji
 kudi-ɬer=kawu=ni na ceŋci
 3SG.HEAT.IRR-warm=3SG.SIT.IRR=FUT LOC fire

‘He’s gonna get warm by the fire.’

(JoN: IG3-032-B)

- (152) wudi aɟimaba paljerpek na bilikan
 wudi adi-maba pal-jerpek na bilikan
 water 2SG.CAUSE.IRR-pour 2SG.BUMP.IRR-fill LOC billy can

‘Pour water into the billy can, fill it up.’

(JoN: IG3-037-B)

- (153) ner gindili ni maŋjindir
 ner kindili ni ma=ŋjnci-ndir
 2PL.PRO 2PL.SIT.R LOC MASC=one-2PL.OBL

‘You mob are sitting on your own.’

(PT: IG3-034-A)

- (154) ma jin nimir ŋunni na je jepezi jin
 ma= jin nimir ŋun=ni na je= jipezi jin
 MASC= 1SG.PRO STILL 1SG.GO.IRR=FUT LOC CHILD= little 1SG.PRO

‘As for me, I’m going to go to my child.’

(MJ: 20190212-JM-MJ)

While /na/ occurs significantly more regularly than /ni/, the two forms appear to be in free variation:

- (155) a. jin ga kaŋi ni maʒi na mutuka
 jin =ka kaŋi ni maʒi na muduka
 1SG.PRO =TOP 1SG.SIT.R LOC belly LOC car
 ‘I’m sitting inside the car.’ (JoN: IG3-021-B)
- b. naŋ ji kuʒi na jeʒi na ŋata
 naŋ ji kuʒi na jeʒi na ŋata
 3SG.M.PRO DEM.3 3SG.SIT.R LOC inside LOC house
 ‘He’s sitting inside the house.’ (PT: IG3-021-A)

/na/~ni/ also functions as a relativiser and a subordinator (see §9.2 for details). An example of the subordinator usage is given in (156).

- (156) jin ga ŋanipira naŋʒi na zuzut jin ga
 jin =ka ŋani-pir=a naŋci [na zuzut jin =ka
 1SG.PRO =TOP 1SG.GO.R.PFV-leave=PST THING LOC lung 1SG.PRO =TOP
 wiŋʒen βiŋi
 wiŋcen βiŋi]
 bad now
 ‘I stopped (smoking) because my lung is bad.’ (ET: 20150714-JM-ET)

3.1.9 CONJUNCTION

Three coordinating conjunction particles */ii/*, */mu/* and */a/* are found in the corpus, albeit rarely. */ii/* is translatable as ‘and’ and is observed joining either two clauses (157) or two NPs (158):

- (157) ŋulizitipa ii ŋangumbukata
 ŋuli-zip~zip=a ii ŋani-kumbu-kat=a
 1SG.BUMP.R.PFV-REDUP~bite=PST AND 1SG.GO.R.PFV-piece?-cut=PST
 ‘I bit it and it broke into two pieces.’ (PT: IG3-035-A)
- (158) awu ŋakuma[kaŋinim ka apapa ii aʒeʒem,
 awu ŋakumal kaŋi=nim =ka a=papa ii a=ʒeʒem
 ANIM totem 1DU.PRO=AUG =TOP ANIM=sugarglider AND ANIM=curlew
 ‘Our totems are sugarglider and curlew.’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

/mu/ indicates a contrast between clauses:

- (159) cer ga kinmelkiɿiɿja ga mu wuji ambu jeɿi
 cer =ka kinmel-kiɿiɿ=ja =ka mu wuji ambu jeɿi
 1PL.PRO =TOP 1PL.GO.R.IPFV-play=PST =TOP BUT PLACE NEG today
 ‘We used to play, but not these days.’ (RM: 20080521-MC-Bush-games)

/a/ is only observed once in the corpus where it appears to offer an alternative between two NPs:

- (160) cipeɿi ginina milawani a micibakini
 cipe=ni kinin=a mi=lawa=ni a mi=ciβaki=ni
 WHAT=DAT 2SG.GO.R=PST PLANT=damper=DAT OR PLANT=tobacco=DAT
 ‘What do you want, some tobacco or some damper?’
 (HK: 1972-MW-M02004365A)

3.1.10 INTERJECTION

Interjections differ from other types of speech and particles in that they do not form part of a clause, or have a role in joining clauses, but are instead expressions that stand alone, outside of the clause. Interjections found in the Marri Ngarr corpus include */ju(kwi)/* ‘yes’ (161), */lijik/* ‘no’ (162), */aa/* ‘oh!’ (163), */ja(w)/* ‘hey!’ (164) and */puj/* ‘go’ (165). The form */lijik/* also occurs in negated clauses where it forms part of the clause (§9.5.4).

- (161) jukwi ɱiɱwurit
 jukwi ɱiɱ-yurit
 yes 1SG.SWING.R.PFV-turn
 ‘Yes, I can make (a dilly bag).’ (HK: 1972-MW-M02004365A)

- (162) lijik ambu ɱaɰapa
 lijik ambu ɱa-ɰap=a
 no NEG 1SG.MOUTH.IRR-try=PST
 ‘No, I haven’t tried it.’ (JN: IG3-007-B)

- (163) aa wuji wiŋɣen ariwu
 aa wuji wiŋcen ari=wu
 oh PLACE bad DEM.1=WU

‘Oh! The country here really was bad.’

(JoN: 20000923-MC-Ancestors-to-Nama)

- (164) jaw ɲaβat
 jaw ɲa-βat
 hey 2SG.COOK.IRR-rise

‘Hey, get up!’

(JN: IG3-007-B)

- (165) puɟ jaɬarini
 puɟ ja-ɬari=ni
 go 2SG.MOUTH.IRR-go=FUT

‘Go away!’

(RK: 1972-MW-M02004364B)

3.1.11 PARTICLES and CLITICS

There are a number of elements in the corpus which, based on their morphosyntactic characteristics, do not fit any descriptions of the parts of speech categories defined previously in §3.1. These residual elements can be categorised as particles. Other elements, some of which already belong to a part of speech category described above, are categorised as clitics. This section briefly explains the difference between particles and clitics and shows how particles are distinct from the major parts of speech previously described in §3.1.1 - §3.1.7. It also discusses criteria used to distinguish clitics from affixes. §9.5 explores the functions of individual particles and clitics in more detail.

The distinction between a particle and a clitic lies in each element’s ability to take stress: a particle has the ability to take stress while a clitic does not and must attach to a host. This contrast between particles and clitics is exemplified below, with the REPEAT particle /ɲali/ (§9.5.8) receiving secondary stress following the verb, while the directional clitic /wuri/ (§9.5.1.1) cannot take stress and is thus analysed as encliticising to the verb.

/ɲinimu-ɲin ɲali/ [ɲínimòɲin ɲèli]

2SG.SAY/DO.IRR-1SG.OBL REP

‘You tell me again.’

/ɲinimu-ɲin=wuri/ [ɲínimòɲinwɔ̀ri]

2SG.SAY/DO.IRR-1SG.OBL=TOWARDS

‘You tell me’

Note that the majority of clitics are enclitics in Marri Ngarr and this predicts that they can never be utterance/clause initial, which is borne out in the corpus. One exception

to this is bound nominal classifiers, which can appear either as proclitics or enclitics. In their primary categorising function bound classifiers are proclitics, and are readily observed utterance/phrase-intially as in (166), while in negative existential constructions they occur as enclitics, attaching to the negation particle */ambu/* (167).

- (166) azamu ni kumbuna ga
 a=zamu =ni kumbun=a =ka
 ANIM=long-necked.turtle =DAT 1INCL.DU.GO.R=PST =TOP

‘They went looking for fresh water turtle.’

(CM: 1982-CM-Tree-Dreaming)

- (167) amba
 ambu=a
 NEG=ANIM

‘There’s no meat.’

(JoN: IG3-021-B)

Particles are morphosyntactically distinct from nominals, nominal classifiers, personal and interrogative pronouns and demonstratives (i.e. all the parts of speech which can form an NP). Elements of the NP can generally be preceded by nominal classifiers and followed by case markers (§3.1.2 - §3.1.5) whereas particles are never observed in these environments. Similarly, particles can be distinguished from verbs based on a particle’s inability to take any verbal morphology (§3.1.1). The difference between particles and adverbs is revealed through word order characteristics: adverbs can be freely ordered with respect to other elements of the clause (§3.1.7), while particles and clitics are generally more restricted in position.³⁵ For example the negator particle */ambu/* is always positioned prior to the element over which it has scope, usually the verb (168), while the particle */nana/*, which indicates similarity between entities, always occurs between the two phrases being compared (169). */nali/*, which indicates repetition of an entity or event, generally occurs at the right edge of the phrase (170).

- (168) naɟi gu ambu niŋɟiŋuwata
 nadi ku ambu niŋɟi-ŋki-wat=a
 2DU.PRO DEM.2 NEG 2NSG.HANG.R.PFV-DU.S-hang=PST

‘You two didn’t hang it up.’

(JN: IG3-011-A)

35. Note that some of the elements under consideration appear only very rarely in the corpus and it is difficult to know whether an element’s full range of positional possibilities is captured in the corpus. Therefore, categorisation as a particle should be considered only a preliminary analysis in some cases. See descriptions of individual elements in §9.5.

- (169) **naŋji ɲana rup kimin ga**
naŋci ɲana rup kimin =ka
 THING LIKE rope KIND =TOP
 ‘It’s like a kind of rope.’ (JJ: 20080521-MC-Bush-games)

- (170) **ɲaŋgurpni ɲali**
ɲa-ŋ-kurp=ni ɲali
 1SG.SWING.IRR-2SG.O-hit=FUT REP
 ‘I’m going to hit you too.’ (HK: 1972-MW-M02004364A)

I use the following criteria from Zwicky and Pullum (1983) and Spencer and Luis (2012) to distinguish clitics from affixes: (i) affixes are selective with their hosts while clitics are relatively less so; (ii) affixes attach at word-level while clitics attach at phrase-level and, therefore, affixes are always attached closer to the stem than clitics. Based on these criteria, most morphological elements in Marri Ngarr can be considered clitics. Many can be found attaching to various parts of speech. These elements include the APPREHENSIVE marker which is shown attaching to both a verb and nominal in (171), the AUGMENTED number marker which attaches to a verb and personal pronoun in (172), TENSE markers (§7.2) and directional markers (§9.5.1).

- (171) **ɲiŋerandi juwu wijendi, aŋar ɲawuni**
ɲiŋer=andi ji=wu wiji=andi aŋar ɲawu=ni
 1SG.TRAVEL.R=APPR DEM.3=WU angry=APPR PROX 1SG.SIT.IRR=FUT
 ‘He might be mad at me, I’m gonna stay here.’ (JN: IG3-013-A)

- (172) **niwir ma ji**
niwir ma= ji
 3PL.PRO MASC= DEM.3
pulinigigapnima
puli-ni-ŋki-yap=nim=a
 3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1INCL.DU.O-throw.at=AUG=PST
kaŋginim jeɟi karila ɲarin
kaŋki=nim jeɟi karila =ɲarin
 1INCL.DU.PRO=AUG WEAP rock =INSTR
 ‘That mob threw a rock at us two.’ (PT: IG3-039-A)

Case markers always always attach at the right edge of the NP, as opposed to each NP element, as such displaying characteristics of clitics (173).

- (173) a. jeɽi maŋgu ɲarin palyap tamin
 jeɽi maŋku =ɲarin pal-ɣap =zamin
 WEAP cup =INSTR 2SG.BUMP.IRR-throw.at =AWAY
 ‘Throw the cup at him’ (HK: 1972-MW-M02004364A)
- b. *jeɽi =ɲarin maŋku pal-ɣap =zamin
 WEAP =INSTR cup 2SG.BUMP.IRR-aim.at =AWAY

On the other hand, elements such as the MALEFACTIVE marker and RECIPROCAL marker are considered affixes as they are only ever found attaching to the verb and always attach in internal positions relative to clitics, as illustrated with the RECIPROCAL marker in (174), which is followed by the serial verb and PAST tense clitics.

- (174) naŋɽi kumiparmugaŋgigunmela
 naŋci kumun-βarmu-kaŋki=kunmel=a
 THING 3NSG.PIERCE.R.IPFV-give-RECIP=3PL.GO.R.IPFV=PST
 ‘They were giving things to each other.’ (JJ: RN5-003-B)

3.2 Grammatical Relations

This section provides a brief overview of the main strategy used to encode grammatical relations in Marri Ngarr: pronominal agreement marking. In this section I also provide definitions for terms related to grammatical relations and argument structure which are used throughout the thesis. Here I define the terms VALENCE and TRANSITIVITY, ARGUMENT and ADJUNCT, and CORE and OBLIQUE arguments.

Verbal VALENCE concerns the predicate and the participants of the clause with which it forms a close relationship, i.e. those participants which are integral for determining the meaning of the predicate (T. E. Payne 1997, pp. 169–72). Valence can be assessed from a semantic or syntactic perspective. Semantic valence is concerned with the number of participants a predicate requires; however these participants are not necessarily realised morphosyntactically in the clause. Syntactic valence refers to only those participants that are morphosyntactically realised in the clause (T. E. Payne 1997, pp. 169–70) and these encoded participants are ARGUMENTS. The English verb ‘eat’ is often used to demonstrate this distinction (e.g. T. E. Payne 1997, p. 170). This verb requires two participants, an ‘eater’ and a ‘thing eaten’ to complete its meaning, thus it can be considered a semantically bivalent verb. However, the ‘thing eaten’ is not always realised as an argument in the clause, e.g. ‘Yes, I’ve already eaten’. Therefore, ‘eat’ can be syntactically either monovalent or bivalent.

In Marri Ngarr, syntactic valence can be assessed via examination of pronominal agreement marking on the verb due to the regularity with which arguments are expressed via these markers (at least for core arguments). This regularity is in contrast to other strategies for encoding arguments, such as via an NP. NPs are only optionally realised and are relatively uncommon. It is also rare for a clause to express all arguments of a verb

via NPs. In the transitive verb below in (175), neither the subject or object are expressed with an NP.

- (175) *numuŋgidiwaŋɖija* *cuja*
 numuŋki-widi-waŋɖi=ja *cuja*
 1SG.FOLLOW.R.PFV-3DU.O-follow=PST yesterday

 ‘I was following them yesterday.’ (PT: IG3-030-A)

Further, case-marking is optional and generally not used to encode core arguments (§4.6); therefore it is not always obvious whether a given NP is an argument of the predicate with which it shares a clause. Classifier stems, which are obligatory on the verb, have an inherent transitivity value; however this can also be a somewhat inconsistent indicator of the transitivity/valence value of the verb (see §5.3.3 for details). Pronominal agreement marking on the other hand is obligatory for core arguments and regularly encodes oblique arguments; thus it is a relatively more reliable indicator of syntactic valence, in particular for marking core arguments.³⁶

Four types of pronominal markers are used on the verb: SUBJECT, OBJECT, OBLIQUE and ADJUNCT (a more in-depth account of each of the pronominal markers is given in §5.6). Both intransitive and transitive subjects are encoded in the same way, via SUBJECT-marking, while objects are encoded in the separate OBJECT slot, i.e. pronominal agreement shows nominative-accusative alignment. Subjects and objects are core arguments, forming a particularly close relationship with the predicate (see discussion of core vs oblique arguments below). They are both semantically required by the predicate and obligatorily encoded morphologically (with caveats for the encoding of objects explained below). The SUBJECT marker forms part of the larger classifier stem in slot 1 of the verb template (the verb template is given in §5.1), while the OBJECT marker is positioned in slot 2 (and competes with the OBLIQUE marker and DUAL SUBJECT marker for this position). Examples of SUBJECT and OBJECT marking are given below in (176) and (177). SUBJECT is considered a sub-element of the larger portmanteau classifier stem (see §5.2 and §7.1 for my reasons for this analysis) and is usually glossed as such, but is segmented in (176) to illustrate the SUBJECT-marking form and position.

- (176) *jin* *ɳulipmudija*
 jin *ɳu-li-ɳ-mudi=ja*
 1SG.PRO 1SG-BUMP.R.PFV-2SG.O-see=PST

 ‘I saw you.’ (HK: 197207-MW-M02004362B)

- (177) *jin* *ɳaɖipbacni*
 jin *ɳadi-ɳ-βac=ni*
 1SG.PRO 1SG.FEET.IRR-2SG.O-kick-FUT

 ‘I’m going to kick you.’ (JN: IG3-008-A: 43)

36. Note, however, that two of the optional pronominal markers, OBLIQUE and ADJUNCT, can encode adjuncts (i.e. non-arguments), as discussed below.

Restrictions on the realisation of 3SG objects mean that this argument category is never pronominally encoded, as shown by contrasting the examples in (178). While in (178a) the 2SG object is marked via the OBJECT marker, in (178b) no OBJECT marker is present. However, as the combination of the CAUSE classifier stem and the reduplicated lexical stem /*jil~jil*/, in addition to the incorporated body part nominal /*ʔaŋ*/ is an object-taking verb, it is clear that the verb in (178b) expresses an unmarked 3SG object: an object comprised of any other person/number feature combination would necessarily be encoded pronominally.

- (178) a. *ɲudiŋʔaŋjiljilni*
ɲudi-p-ʔaŋ-jil~jil=ni
 1SG.CAUSE.IRR-2SG.O-ear-REDUP~tell.truth=fut
 ‘I’m gonna teach you.’ (JoN: IG3-026-B)
- b. *jin mari ɲuriðaŋjiljilni*
jin mari ɲudi-ʔaŋ-jil~jil=ni
 1SG.PRO LANG 1SG.CAUSE.IRR-ear-REDUP~tell.truth=FUT
 ‘I’m going to teach him.’ (PT: IG3-022-A)

In (semantically) trivalent verbs in the corpus, the object is usually 3SG and, therefore, unmarked pronominally, while the oblique argument fills the second slot, as seen in (179).

- (179) *naŋʃi puja wuri tʰaŋinβap*
naŋci puja =wuri za-ŋin-βap
 THING string =TOWARDS 2SG.MOUTH.IRR-1SG.OBL-transfer
 ‘Give me some string.’ (RK: 1972-MW-M02004365A)

Whilst 3SG objects are unexpressed, this is not an instance of a semantic/syntactic valence mismatch, but rather a local restriction on the marking of certain argument features in the verb. The distinction between semantic and syntactic valence is, however, often seen in verbs which can encode oblique arguments. As illustrated below in (180), obliques are semantically required (as they are inherent to the predicate’s meaning), but optional in the morphosyntax, as in (180b).

- (180) a. *jin kaŋimbimazija*
*jin kaŋi-**mbi**-mazi=ja*
 1SG.PRO 1SG.SIT.R-2SG.OBL-wait=PST
 ‘I was waiting for you.’ (PT: IG3-021-B: 11)

- b. gawijmazi
 kawu-ŋ-mazi
 3.SIT.R-DU.S.INTR-wait

‘Those two are waiting.’

(JJ: RN5-002-A)

This tendency for mismatch between semantic and syntactic valence distinguishes *OBLIQUE* arguments from *CORE* arguments: excluding the local restrictions on 3SG observed above, core arguments (subjects and objects) are obligatorily realised on the verb. Obliques on the other hand are morphologically optional. In the verb in (180b) the unencoded semantic participant could have any category features because any oblique participant can be left morphologically unexpressed. This is in contrast to (178b) above which could only contain an unmarked 3SG object.

As opposed to *ARGUMENTS*, which are inherent to the meaning of the verb, *ADJUNCTS* are elements which provide extra information about the predicate or the event, but aren’t necessary to determine its meaning. Therefore, arguments are restricted to occurrence with certain verbs while adjuncts are generally compatible with any verb. Adjuncts with human referents can be encoded morphologically on the verb in Marri Ngarr via the *ADJUNCT* marker and also by the *OBLIQUE* marker. *ADJUNCT* is used to pronominally mark an adjunct when the second slot is already filled (181a), and also on simple verbs (181b).

- (181) a. jin kumuŋimacerpaliŋina
 jin kumun-ŋ-macer-pali-ŋin=a
 1SG.PRO 3SG.PIERCE.R.IPFV-1SG.O-WORRY-2SG.ADJ-1SG.GO.R.IPFV=PST

‘I was worried about you. [Lit. It worries me about you.]’

(PT: IG3-030-A)

- b. kwaniŋinaliwuri na jin
 kwani-ŋinali=wuri na jin
 3SG.GO.R-1SG.ADJ=TOWARDS LOC 1SG.PRO

‘He’s coming up to me.’

(PT: IG3-033-B)

OBLIQUE-marking can be used to mark benefactive (182a), or malefactive (182b) adjuncts. This means that sometimes both *OBLIQUE* and *ADJUNCT*-marking options are possible: while the malefactive referent is encoded by *OBLIQUE* in (182b), it is marked by *ADJUNCT* in (183).

- (182) a. paliŋiŋeritakwuri jiβaki
 pal-ŋin-ceritak=wuri ciβaki
 2SG.BUMP.IRR-1SG.OBL-ignite=TOWARDS tobacco

‘You light a cigarette for me.’

(JoN: IG3-037-A)

- b. **naŋanβarapŋaja**
 na-**ŋin**-βarup-**ŋa**=ja
 3SG.COOK.R.PFV-1SG.OBL-run.away-MAL=PST

‘He ran away from me.’

(JN: IG3-012-A)

- (183) awu **ji**iki wunmuk kanipaliŋandi
 awu **jilirki** wunmuk kwani-**pali**-ŋa=andi
 ANIM meat rotten 3SG.GO.R-2SG.ADJ-MAL=APPR

‘The meat might go rotten on you.’

(PT: IG3-036-B)

TRANSITIVITY, like VALENCE, concerns the relationship between a predicate and its arguments. While syntactically bivalent verbs simply require two morphologically realised arguments, such as the OBLIQUE-marked verb in (184a), transitive verbs are bivalent verbs with more specific criteria, requiring an OBJECT marker (though 3SG objects are unmarked) which usually maps to a patient (see §5.6.3 for details), and this OBJECT marker usually co-occurs with a TRANSITIVE classifier stem, as in (184b) below.

- (184) a. **ŋamuberija**
 ŋam-**mbi**-eri=ja
 1SG.PIERCE.R.PFV-2SG.OBL-lie=PST

‘I told you a lie.’

(PT: IG3-034-A)

- b. **ŋiŋiŋgurpa**
ŋiŋ-**p**-kurp=a
 1SG.SWING(TR).R.PFV-2SG.O-hit=pst

‘I hit you.’

(HK: 197207-MW-M02004363A)

This chapter has outlined the various parts of speech identified for Marri Ngarr and the diagnostics used to identify them. It has also provided some definitions used throughout the thesis related to grammatical relations and argument structure, as well as introducing the pronominal agreement markers which are the primary method for encoding grammatical relations. Description of these pronominal markers is picked up again in §5.6 where they are discussed in terms of their formal characteristics, thematic roles and various functions. In the next chapter, I turn to a discussion of the Noun Phrase.

Chapter 4

The Noun Phrase

This chapter explores various aspects of the Noun Phrase (NP) in Marri Ngarr. In §4.1 I assess the status of nominal expressions with regard to constituency. Recent research on NP constituency in Australian languages has found that around 50% - 60% of these languages show evidence for NP constituency based on word order and/or case-marking properties (Louagie 2017). I examine these characteristics of nominal expressions (primarily word order) in Marri Ngarr in §4.1.1, finding that a functional analysis of NP ordering can help to explain the data and provide evidence for NP constituency. Issues of apparent discontinuity of some nominal expressions are addressed in §4.1.2.

A prominent feature of nominal expressions in Marri Ngarr is the nominal classification system. Marri Ngarr has a set of 13 nominal classifiers which semantically categorise entities. §4.2.1 provides a brief overview of the fundamental semantics of nominal classifiers from a cross-linguistic perspective, before outlining the semantics of each of the classifiers in Marri Ngarr. Within nominal classification systems, Dixon (1982, pp. 213–218) makes a distinction between ‘noun classifiers’, which are independent forms which generally form a relatively large group, and ‘noun class’ markers: a small, bound closed-class set. Dixon (1982, p. 218) claims that nominal classification systems generally exhibit clear characteristics of either the noun classifier or the noun class type. Marri Ngarr is unusual in this respect as its nominal classification system includes elements with noun class characteristics and those which are more similar to noun classifiers. Some elements have properties of both types of classifier. §4.2.2 addresses the mixed nominal classification system found in Marri Ngarr. Noun classifiers often develop from nouns with generic semantics (Aikhenvald 2000, pp. 353–361) and as such, it can often be difficult to distinguish between fully lexical generic nouns and independent noun classifiers, which have grammaticalised in some way. §4.2.3 discusses the criteria with which these elements might be delineated and examines the Marri Ngarr data within this context. While nominal classifiers usually co-occur with NP elements and categorise entities, in some instances they attach to or precede predicates. Their role in these constructions is explored in §4.2.4.

Australian languages are well-known for not exhibiting obvious distinctions between the categories of noun and adjective, with the term ‘nominal’ often adopted to refer to both (Dixon 1980, pp. 271–5). I explore the potential part of speech distinction between these elements in Marri Ngarr in §4.3.1. Following discussion of this issue, the remainder of the chapter describes various characteristics of the elements which comprise the NP.

Nominals are discussed in §4.3 and this is followed by examination of personal (§4.4.1) and interrogative/indefinite (§4.4.2) pronouns. Analysis of demonstratives is given in §4.5 and finally case-marking is explored in §4.6.

Prior to commencement of the chapter, I provide some clarification of the terminology I will use. Firstly, I distinguish between ‘nominal’, which refers to a part of speech (see §3.1.2 and §4.3 for details), and ‘NP element’, which is a more general term that refers to any element which can be included in the NP. In §4.1 I use ‘nominal expression’ as a pre-analytic term when considering whether a string of elements has internal constituency and can, therefore, be considered an NP. In discussion of nominal classification, I use ‘free (nominal) classifier’ and ‘bound (nominal) classifier’ to refer to the two distinct types (see above), and ‘(nominal) classifier’ to refer to classifiers of either/both types. In §4.3.1 (and elsewhere) I use the term ‘entity-denoting nominal’ to refer to elements usually termed ‘noun’ (based on their semantics), to remain agnostic as to whether there is a part of speech distinction between ‘nouns’ and ‘adjectives’. In the remainder of the thesis when I refer to ‘nouns’ it is only as a sub-type of the NOMINAL part of speech.

4.1 NP constituency

A recent survey of Australian languages examined evidence for NP constituency in 100 languages, primarily based on word order properties and positioning of case-marking in nominal expressions, as well as other criteria such as prosody and diagnostic slots (Louagie 2017, ch.4). Louagie (2017, pp. 127–139) found that around two thirds of the languages in the survey showed evidence for NP constituency based on word order, and evidence for NP constituency was found in just over half the languages based on case-marking. The presence of a determiner slot is a feature of nominal expressions which also provides evidence for NP constituency, as a functional determiner slot demonstrates internal structure of the nominal expression. Australian languages rarely have specialised determiners (Louagie 2017, p. 105); however a variety of NP elements such as demonstratives, pronouns and quantifiers are reported to have a determiner function in various Australian languages (Blake 2001; Dixon 2002, pp. 66–67; Louagie and Verstraete 2015; Louagie 2017, pp. 193–208) and this is also the case cross-linguistically (Dryer 2007, pp. 152–161; Rijkhoff 2002, pp. 185–194). While determination has traditionally received little attention in Australian languages, the survey in Louagie (2017) also investigated the topic of determination from a syntactic perspective and found evidence for a determiner slot in around half these languages (Louagie 2017, p. 212).

In §4.1.1, I assess the status of nominal expressions in Marri Ngarr in terms of NP constituency. I find that, despite freedom of word order being exhibited at clausal level (§9.1), word order in nominal expressions is relatively strict. I propose NP templates based on the function of elements rather than their parts of speech and show how this accounts for the variable positioning of some NP parts of speech. I present some syntactic evidence suggesting the existence of a determiner slot in the Marri Ngarr NP and also show how case-marking provides evidence of internal structure. §4.1.2 examines the small number of apparent discontinuous nominal expressions in the corpus, finding no evidence of true discontinuity in the Marri Ngarr nominal domain. Together these characteristics of nominal expressions provide clear evidence of NP constituency in Marri Ngarr.

4.1.1 Word order

I propose two NP templates for Marri Ngarr given below in (185) and (186). The bracketing in the first template indicates that the Classifier and Head slots can optionally be clitics. The second template is required to account for the distribution of pronouns in the NP. The templates are based on functional categories rather than parts of speech. The parts of speech which can fill each of the functional slots are also given below their respective templates in tables 4.1 and 4.2. Note that all elements in the NP are optional but if only one element is present in the NP, it must fill the Head or Classifier slot.

(185) NP: Classifier(=) Head(=) Modifier Determiner

<i>Function</i>	<i>Part of speech</i>
Classifier	NOMINAL CLASSIFIER
Head	NOMINAL (entity-denoting), NOMINAL CLASSIFIER
Modifier	NOMINAL (modification: adjective/quantifier), DEMONSTRATIVE
Determiner	DEMONSTRATIVE, PERSONAL PRONOUN (possessive), NOMINAL (quantifier)

Table 4.1: Functional NP slots and corresponding parts of speech

(186) NP: Head

<i>Function</i>	<i>Part of speech</i>
Head	PRONOUN (PERSONAL, INTERROGATIVE, DEMONSTRATIVE)

Table 4.2: Functional NP slot and corresponding parts of speech (PRONOUN NP template)

This type of functional NP analysis has been argued for Gooniyandi (McGregor 1990, pp. 253–276), and allows for one part of speech to vary its position in the template depending on the function it serves, and also allows for each functional slot to be filled by more than one part of speech. In this way, apparent word order flexibility can be explained by appealing to the function of each NP element in a given construction, rather than their parts of speech.

The Classifier slot in the Marri Ngarr NP template is filled by elements which semantically classify an entity (entities are denoted by elements which fill the Head slot - see below). The Classifier slot is filled by nominal classifiers in either free or bound form. Examples are given in (187) with the WATER/drinkable liquids classifier /*wudi*/ and in (188) with the THING/tree/residue classifier /*naŋci*/. In (187a) and (188a), the nominal

classifier is followed by an entity-denoting nominal which fills the Head slot, and the nominal classifier semantically classifies this entity. In (187b) and (188b), the nominal classifiers are the sole elements of the NP. They don't possess the specific semantics of the entities expressed in the translation; 'beer' in (187b) and 'rags' in (188b); rather they again express the superordinate categories to which these (unexpressed) entities belong, i.e. they perform a classification function.

- (187) a.

niŋ	ŋandiwudak	wudi	ti
nij	ŋandi-γudak	[wudi	ti]
2SG.PRO	2SG.SIT.IRR-drink	WATER	tea
Head	Verb	Classifier	Head

‘You drink tea.’ (HK: 1972-MW-M02004364B)

- b.

wudi	ŋulgudak	ŋijŋinarin
[wudi]	ŋul-γudak	ŋijcinarin
WATER	1SG.BUMP.R.PFV-drink	sometimes
Classifier	Verb	Adverb

‘I drink beer sometimes.’ (PT: IG3-021-A)

- (188) a.

naŋji	miriwi	ambacbac
[naŋci	miriwi]	am-bac~bac
THING	hole	2SG.PIERCE.IRR-REDUP~stitch
Classifier	Head	Verb

‘Stitch up the hole (in the mosquito net).’ (JoN: IG3-034-A)

- b.

naŋji	neβiɿbiɿ	piŋi
[naŋci]	ne-biɿ~biɿ	βiŋi
THING	2SG.COOK.IRR-REDUP~cook	now
Classifier	Verb	Adverb

‘Burn up those rags (for ceremony).’ (PT: IG3-016-B)

Nominal classifiers are also the only elements which can occur more than once in an NP, though this occurs infrequently in the corpus. When they are repeated the second instance must be a bound form and attach to an NP element to the right of its first instantiation (189) - (190). As such, this agreement is only possible for those nominal classifiers which possess bound forms. Sometimes, both instantiations of the nominal classifier are in bound form (191). The second instance of a nominal classifier is considered agreement and does not fill its own slot, but is rather analysed as morphology attached to a free element which fills an NP slot. This agreement is optional; in (192) the bound classifier only occurs on the first NP element.³⁷ Bound nominal classifier distribution is also discussed

37. Note that while functional NP slots have been posited for each element in (191) and (192), and all the NP elements in this section, there is some uncertainty about which slots have been filled in many examples. This is discussed below.

in §4.2.2. Note that in (191) and (192) two co-referential NPs occur in apposition. These constructions are discussed below.

- (189) awu awuŋgi kumuŋdarituŋkuzi
 [awu a=wuŋki] kumun-zadi-tuŋ=kuzi
 ANIM ANIM=termite 3SG.PIERCE.R.IPFV-back-make.hole=3SG.SIT.R.IPFV
 Classifier Head Verb
 na tuwur
 na tuwur
 LOC tree
 Prep Head

‘A termite made a hole in the tree.’ (PT: IG3-038-B)

- (190) tuŋjen na jin, kaɖinim wu, miji mi mari, ii awu
 tuŋcen na jin kadi=nim =wu miji mi= mari ii awu
 boy LOC 1SG.PRO 1DU.PRO=AUG =WU PLANT PLANT= cycad AND ANIM
 ɳarin aɖaɖinim.
 =ɳarin a=kadi=nim
 =INSTR ANIM=1DU.PRO=AUG

‘My boys, our (clan group), cycad nuts, those are our (totems).’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

- (191) niwip ma ji ma juɖuk
 [niwip] [ma= ji ma= ciɖuk]
 3DU.PRO MASC= DEM.3 MASC= two
 Head Classifier= Modifier Modifier
 kumuŋgiɖeɖekawina naɳji
 kumun-ŋki-cek~cek=kawu-ŋ=a naɳci
 3NSG.PIERCE.R.IPFV-DU.S-REDUP~paint=3.SIT.R.IPFV-DU.S.INTR=PST THING
 Verb Classifier
 miti
 miti
 dot
 Head

‘Those two fellas are going to paint it up with dots.’ (PT: IG3-025-A)

- (192) naŋ ma jipezi ji kanigiɖiɖi
 [naŋ] [ma= jipezi ji] kani-kiɖiɖi
 3SG.M.PRO MASC= little DEM.3 3SG.GO.R.IPFV-play
 Head Classifier Head Modifier Verb

‘He’s playing around.’ (JoN: IG3-036-A)

The Head slot is filled by an element which refers to an entity. Elements from the nominal part of speech which are entity-denoting commonly fill this slot (193) - (194).

- (193) *miji jɨ̄jildi mazi kinimunat*
 [miji **jɨ̄jildi**] mazi kinimun-at
 PLANT **long.yam** belly 2SG.PIERCE.R.IPFV-pick.up
 Classifier **Head** Head Verb

‘Do you like yams?’ (HK: 1972-MW-M02004365A)

- (194) *naŋ mari tindiŋ meŋina*
 naŋ [mari **tindiŋ**] me-ŋin=a
 3SG.M.PRO LANG **secret** 3SG.SAY/DO.R.PFV-1SG.OBL=PST
 Pronoun Classifier **Head** Verb

‘He told me a secret.’ (PT: IG3-035-A)

The Head slot can also be filled by forms which otherwise function as nominal classifiers. While in (187b) and (188b) above /wudi/ and /naŋci/ are analysed as filling the Classifier slot, in (195) and (196) below, the semantics of these forms are compatible with the generic nominal meanings ‘water’ and ‘thing’ and as such they are analysed as functioning as generic nominals which fill the Head slot (see also §4.2.3 for discussion of the variable function of these elements).

- (195) *naŋ ji kwanijibut na wudi*
 naŋ ji kwani-jibut na [**wudi**]
 3SG.M.PRO DEM.3 3SG.GO.R.IPFV-swim LOC **water**
 Head Head Verb Prep **Head**

‘He’s swimming through the water.’ (JoN: IG3-021-A)

- (196) *naŋji guβaβapaŋgiguli*
 [naŋci] ku-βap~βap-(k)aŋki=kuli
thing 3NSG.MOUTH.R.IPFV-REDUP~transfer-RECIP=3PL.SIT.R.IPFV
Head Verb

‘They’re all giving each other things.’ (JJ: RN5-003-A)

Bound forms of nominal classifiers can also fill the Head slot. In (197) the bound ANIM classifier is in Head position, while the nominal /ŋatin/ fills the Modifier slot. Modifiers are never present in an NP without the Classifier and/or Head slot also being filled.

(197)	kipβap	kawijɲimburi	aɲatin	ɲali
	kip-βap	kawu-ɲ-cimburi	[a=ɲatin]	ɲali
	3SG.SWING.R.IPFV-transfer	3.SIT.R-DU.S.INTR-eat	ANIM=raw	REP
	Verb	Verb	Head=Modifier	Particle

‘He passes it and they eat raw meat together.’

(JN: 20090226-MC-WaterRat)

The Head slot may also be filled by a demonstrative. Most frequently, this happens when the NP containing the demonstrative occurs in apposition with an NP filled by a personal pronoun (198) (see below), though demonstratives can also function as Head in the absence of appositional NPs (199).

(198)	awu	naɲ	ji	kazapni	βini
	awu	[naɲ]	[ji]	ka-zap=ni	βini
	ANIM	3SG.M.PRO	DEM.3	3SG.SWING.IRR-spear.PL=FUT	now
	Classifier	Head	Head	Verb	Adverb

‘That man is going to spear fish.’

(JN: IG3-014-A)

(199)	amat	ari
	am-at	[ari]
	2SG.PIERCE.IRR-pick.up	DEM.1
	Verb	Head

‘Pick up this one.’

(PT: IG3-035-A)

The Head slot is followed by the Modifier slot. The Modifier slot is filled by modificational nominals, elements which describe properties of the entity (see further details about this type of nominal in §4.3.1) or demonstratives, which provide deictic information about the entity. Examples of modificational nominals (200) and (201) and demonstratives (202) filling the Modifier slot are given below.

(200)	ɲa	muli	ji	wacen	jipezi	aɲiɲiɲa
	[ɲa]	[muli=	ji]	[wacen	jipezi]	adi-ɲic=a
	3SG.F.PRO	FEM=	DEM.3	dog	little	3SG.CAUSE.R.PFV-hide=PST
	Head	Classifier=	Modifier	Head	Modifier	Verb
	na	ϕ ^w a	ɲitiwunni			
	na	βwa	ɲitiwunni			
	LOC	leg	under			
	Prep	Head	Modifier			

‘She was hiding the small dog underneath her leg.’

PT: IG3-034-B

- (201) jin ciβaki ŋalpu ŋirbackaŋi
 jin [ciβaki ŋalpu] ŋir-bac=kaŋi
 1SG.PRO tobacco many 1SG.HANDS.R.IPFV-*hold*=1SG.SIT.R.IPFV
 Head Head Modifier Verb

‘I’ve got lots of tobacco.’

(JoN: IG3-031-B)

- (202) naŋci ari amat
 [naŋci ari] am-at
 thing DEM.1 2SG.PIERCE.IRR-*pick.up*
 Head Modifier Verb

‘Pick up this one.’

(PT: IG3-035-A)

Personal pronouns, quantifiers and demonstratives can occur at the right edge of the NP. Whilst often quantifiers and demonstratives are analysed as expressing properties of entities and filling the Modifier slot in this right-edge position, there is some evidence that all of these elements can also perform a determining function in this position and, therefore, fill a Determiner slot. A determiner can be defined functionally as being concerned with identifiability of a referent (see Lyons 1999). While languages like English possess dedicated determiners such as the articles *the* and *a*, cross-linguistically determination is often only encoded by elements which also serve other functions, such as demonstratives, pronouns and quantifiers (these elements also have determining functions in English) (Lyons 1999, pp. 17–33; Rijkhoff 2002, pp. 185–194; Dryer 2007, pp. 152–161) and this is true for Australian languages (Blake 2001; Dixon 2002, pp. 66–67; Louagie and Verstraete 2015; Louagie 2017, pp. 193–208). Probably due to the fact that the majority of Australian languages don’t have specialised determiners such as articles (Dixon 2002, pp. 66–67), there has not historically been a lot of research into determination in Australian languages. Recent research by Louagie (2017, ch.5) examines whether a determining function is represented in the NP syntax in Australian languages, i.e. whether elements functioning as determiners occupy a unique position in the NP. Assessment of this proposed determiner slot is based on syntactic parameters: (i) whether potential determining elements are found in a position in the NP which is separate to the head and modifiers (providing evidence for a separate NP slot), and if so (ii) whether this position is found at the edges of the NP (Louagie 2017, pp. 173–175). The second parameter is proposed based on the Principle of Scope (Rijkhoff 2002, p. 313) whereby modifiers are said to occur adjacent to the elements over which they have scope. While modifiers function to describe the referent, determiners locate the referent and modifiers in the discourse and thus have widest scope (Louagie 2017, p. 104). If both of these criteria are found, the language is thought to have a determiner slot in the NP. From a survey of 100 Australian languages, Louagie (2017, ch.5) finds strong evidence of a determiner slot for 29 languages and some evidence for a determiner slot in a further 21 languages.

In Marri Ngarr, personal pronouns generally fill the NP alone (as expressed in the NP template in (186) above and discussed below) and are only positioned at the right-edge of the NP when they function as possessive pronouns. This is illustrated in (203) - (204) below where the personal pronoun occurs in this right edge position and is preceded by

the possessum, comprised of NP elements filling the Head slot in (203), and Classifier and Head slots in (204). Possessive pronouns are one of the most common elements to occur in the Determiner slot in the sample of languages in Louagie (2017) (refer to Louagie (2017, pp. 214–220) for a full breakdown of elements which can function as determiners in the languages of the survey). Evans (1995a, p. 240) describes the determiner function in Kayardild as one of identifiability, where the possessive pronoun ‘assume[s] that the hearer can identify the referent by knowing who the possessor is, and which entity belongs to the possessor’.

- (203) η arzi β u η a
 η ari-ni- β u η - η a=ja
 1SG.HANDS.R.PFV-3SG.M.OBL-break-MAL=PST
 Verb
 ‘Then I broke his spear on him.’
- cendi na η
 [cendi na η]
 spear 3SG.M.PRO
 Head Determiner
 (HK: 1972-MW-M02004364B)

- (204) awu η akuma \lfloor ka η inim ka apapa ii
 [awu η akumal kadi= η im] =ka a=papa ii
 ANIM totem 1DU.PRO=AUG =TOP ANIM=sugarglider AND
 Classifier Head Determiner =Clitic Classifier=Head Conjunction
 a η e η em
 a= η e η em
 ANIM=curlew
 Classifier=Head
 ‘Our totems are sugarglider and curlew.’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

Quantificational nominals can also be observed occupying the right edge of the NP. While in (205) / η ij η ci/ describes quantificational properties of the entity denoted by the Head and is analysed as filling the Modifier slot, in (206) quantificational properties of the entity are provided by / η alpu/, suggesting that / η ij η ci/ performs a different function here. While its function is not completely clear, a determiner role is plausible: quantifiers can be found functioning as determiners in a small number of Australian languages, e.g. the numeral ‘one’ can have an indefinite meaning in Bininj Gun-Wok (Evans 2003, p. 244) and Gooniyandi (McGregor 1990, pp. 258–9). The use of the numeral ‘one’ as an indefinite determiner is also common cross-linguistically (Dryer 2007, pp. 155–156).

- (205) jin muku η ij η i η ir β undibacka η i
 jin [muku η ij η ci] η ir-pundibac= η aji
 1SG.PRO woman one 1SG.HANDS.R.IPFV-take=1SG.SIT.R.IPFV
 Head Head Modifier Verb
 ‘I’ve got one wife.’ (JoN: IG3-031-B)

(206)	maŋalpu	ŋiŋji	kulijibut	na	deri
	[ma=ŋalpu	ŋiŋci]	kuli-jibut	na	deri
	MASC=many	one	3PL.SIT.R-swim	LOC	creek
	Classifier=Modifier	Determiner	Verb	Prep	Head

‘There are a lot of men swimming in the creek.’

(HK: 1972-MW-M02004364A)

Demonstratives are the most frequent part of speech to fill the right-edge position of the NP. A determining use of demonstratives is very common cross-linguistically (Rijkhoff 2002, pp. 185–194; Dryer 2007, pp. 152–161) and demonstratives are often analysed as expressing identifiability/definiteness (Lyons 1999, pp. 17–21; Dryer 2007, pp. 154–155). Based on the corpus data it is difficult to assess whether demonstratives in Marri Ngarr can perform a determining function. Lack of discourse context in elicited constructions prevents clarity in much of the demonstrative data. However, demonstratives in the corpus often seem to lack a deictic function and some data suggests they can function as some sort of marker of identifiability: in (207) the speaker does not appear to be referring deictically to a place, but to the place which was identified in the previous clause.

(207)	wuji	βiŋi	wanmelijeta	gan	wu.	wuji	gu
	wuji	βiŋi	panmeli-cet=a	kan	=wu	wuji	ku
	PLACE	now	3PL.GO.R.PFV-sit=PST	ANAPH.DEM	=WU	PLACE	DEM.2
	Classifier	Adverb	Verb	Head	=Clitic	Head	Determiner?
	wudipuli	wu,	nama				
	wudipuli	=wu	nama				
	Wudipuli	=wu	Nama				
	Head	=Clitic	Head				

‘They were all camping then at that country. The place is called Nama, Wudipuli really.’

(JoN: 20000923-MC-Ancestors-to-Nama)

Whilst the examples above have provided some evidence for a functional analysis of the Marri Ngarr NP, quite often it is unclear which NP slots are being filled by NP elements. For example, because some forms can function as both nominal classifiers and generic nominals, they can fill either the Classifier or the Head slot. In (208) below (and (191) and (192) above) it is unclear whether the form /ma=/ functions as the MASC nominal classifier classifying an unexpressed entity ‘man’ and fills the Classifier slot, or whether it acts as a generic nominal ‘man’ and fills the Head slot (though throughout this section I generally gloss forms that can function as nominal classifiers or generic nominals as ‘Classifier’ unless the semantics clearly suggest a generic nominal function, e.g. (195) and (196) above). The functional status of the demonstrative is also unclear in (208) (and in many examples in the corpus, as discussed above): the speaker may be referring to a visible referent and using the demonstrative deictically (in Modifier position), or it may instead be serving some kind of determining function and be positioned in the Determiner slot. In (209) the status of /jipezi/ is unclear: /je=jipezi/ is a common way to express ‘baby’ (though there is also a specific noun /jamutari/). While in examples such as (200) above /jipezi/ clearly functions as a Modifier, in (209) it may instead express an entity

translateable as ‘young one’ and fill the Head slot (see also §4.3.1 for discussion about the lack of distinction between entity-denoting nominals and modificational nominals for nominals of age). Again in this example, the functional status of the form /je=/ is unclear between Classifier and Head (though if /jipezi/ is in Head, then /je=/ must fill Classifier position).

- (208) ma ji ga ηata pađata
 ma= ji =ka ηata pa-ɬat=a
 MASC/man DEM.3 =TOP house 3SG.PUT.R.PFV-put.down=PST
 Classifier/Head Modifier/Determiner =Clitic Head Verb

‘That man built a house.’ (PT: IG3-016-A)

- (209) je jipezi kuzi
 je= jipezi kuzi-zi
 CHILD= young.one/little 3SG.SIT.R-cry
 Classifier/Head Head/Modifier Verb

‘The baby’s crying.’ (RK: 1972-MW-M02004364B)

The alternative to the NP template provided in (185) is the template in (186), repeated below as (210), in which a pronoun fills the NP.

- (210) NP: Head

<i>Function</i>	<i>Part of speech</i>
Head	PRONOUN (PERSONAL, INTERROGATIVE, DEMONSTRATIVE)

Table 4.3: Functional NP slot and corresponding parts of speech (PRONOUN NP template)

Examples of personal (211), interrogative (212), and demonstrative (213) pronouns as the sole element of the NP are given below.

- (211) cer naŋji ari kididerkurkari
 [cer] naŋci ari kidi-derkur=kari
 1PL.PRO thing DEM.1 1NSG.CAUSE.R.IPFV-grind=1NSG.SIT.R.IPFV
 Head Head Modifier Verb

‘We (PLURAL) are sitting here sharpening these things.’ (PT: IG3-019-A)

- (212) **ɲinimba naβuɟa**
 [ɲinimbe] na-βuɟ=a
WHO 3SG.FEET.R.PFV-break=PST
Head Verb
 ‘Who broke it?’ (JN: IG3-011-B)

- (213) **naɲɟi ambu ɲana jin. ji ga naɲɟi ɲiɲɟiɲali**
 naɲci ambu ɲana jin **ji** =ka naɲci ɲiɲciɲali
THING NEG LIKE 1SG.PRO DEM.3 =TOP THING different
Classifier Particle Particle Head Head =Clitic Classifier Modifier
 ‘That (car) is not like mine. That one’s different.’ (PT: IG3-035-B)

This second NP template captures the fact that pronouns are almost never preceded by nominal classifiers³⁸ (in their regular classification function - see discussion of possession constructions above) and, therefore, cannot simply fill the Head slot of the template in (185). Instead pronouns fill the Head slot in the NP template in (186)/(210) but also exhaust the NP. Personal pronouns frequently co-occur with other co-referential NP elements in nominal expressions, commonly with a demonstrative (214a) or bound classifier and demonstrative (214b). While the nominal expression in (214a) could be accounted for by the NP template in (185) by positing the pronoun in the Head slot and the demonstrative in the Modifier/Determiner slot in the same NP, the almost identical example in (214b) shows a bound classifier following the pronoun; an order which cannot be accounted for by the NP template in (185). To capture the distribution of personal pronouns in relation to other NP elements in examples such as (214b), which are common in the corpus, the NP template in (186) is also necessary.

- (214) a. **niwir ji panmeligibaka**
 [niwir] [ji] panmeli-yubak=a
3PL.PRO DEM.3 3PL.GO.R.PFV-fall=PST
Head Head Verb
 ‘They all fell down.’ (JoN: IG3-021-A)

38. One exception is found in the corpus, where the bound MASC classifier attaches to the 1SG personal pronoun (i). As this type of construction is so rare, it is at this stage considered idiomatic.

- (i) **ma jin nimin ɲunni na je jepezi jin**
ma= jin nimin ɲun=ni na je= jipezi jin
MASC= 1SG.PRO STILL 1SG.GO.IRR=FUT LOC CHILD= little 1SG.PRO
 ‘As for me, I’m going to go to my child.’ (MJ: 20190212-JM-MJ)

b.	niwir	ma	ji		panmeliyibaka
	[niwir]	[ma=	ji]		panmeli-yubak=a
	3PL.PRO	MASC=	DEM.3		3PL.GO.R.PFV-fall=PST
	Head	Classifier	Modifier/Determiner		Verb

‘They all fell down.’

(JoN: IG3-036-A)

Though it forms a separate NP, the personal pronoun always precedes the co-referential NP. This ordering of the two types of NPs is shown above in (214) and again below in (215) and is considered to be a conventionalised order.

(215)	niwiŋ	wacen	cicuk	ari		pamuŋgija
	[niwiŋ]	[wacen	cicuk	ari]		pam-ŋki-ŋa=ja
	3DU.PRO	dog	two	DEM.1		3NSG.PIERCE.R.PFV-DU.S-smell=PST
	Head	Head	Modifier	Modifier/Demonstrative		Verb
		ŋiŋiŋali				
		ŋiŋciŋali				
		different				
		Adverb				

‘These two dogs smelt something different.’

(PT: IG3-023-B)

Case-marking can also provide evidence of NP constituency. The examples in (216) show that case-marking cannot attach to more than one NP element (216b), and cannot attach to an NP element which is not at the right edge (216c): case-markers must encliticise to the right edge of the nominal expression (216a), thus indicating that the nominal expression has internal structure and signalling the right edge of this structure (also see §4.6).

(216)	a.	jeŋi	maŋgu	ŋarin	paŋyap		ʈamin
		jeŋi	maŋku	=ŋarin	pal-yaŋ		=zaŋamin
		WEAP	cup	=INSTR	2SG.BUMP.IRR-throw.at		=AWAY

‘Throw the cup at him’

(HK: 1972-MW-M02004364A)

b.	*jeŋi	=ŋarin	maŋku	=ŋarin	pal-yaŋ		=zaŋamin
	WEAP	=INSTR	cup	=INSTR	2SG.BUMP.IRR-throw.at		=AWAY

c.	*jeŋi	=ŋarin	maŋku	pal-yaŋ		=zaŋamin
	WEAP	=INSTR	cup	2SG.BUMP.IRR-throw.at		=AWAY

4.1.2 Contiguity in nominal expressions

Rarely in Marri Ngarr, we see nominal expressions which appear to be discontinuous NPs. The nominals are spread through the clause, with other elements such as the verb intervening between the elements in the nominal expression (217). Constructions such

as these may appear to provide evidence against internal structure in nominal expressions.

- (217) kila jin miji miḡa kanizuzuṭa,
 kila jin miji miḡa kani-zuc~zuc=a
 mother 1SG.PRO PLANT lily 3SG.GO.R.IPFV-REDUP~pick.up.PL=PST
 miḡalpu
 mi=ḡalpu
 PLANT=many

‘My mother picked a lot of lilies.’ (UNK: 196905-DT-D01009403)

Whilst in (217) NP elements which appear to be co-referential are clearly interrupted by the verb, this type of construction is not actually a discontinuous construction, but an example of an afterthought. Schultze-Berndt and Simard (2012) point out that some constructions which on the surface appear to be discontinuous need to be distinguished from true discontinuous constructions (where elements of a single NP are interrupted by other clausal elements) (Schultze-Berndt and Simard 2012). One such similar structure is an afterthought, which Schultze-Berndt and Simard (2012, p. 1026) define as ‘constituents which are added after a sentence is completed (as indicated by a boundary intonation contour and usually a pause), in order to disambiguate potentially unclear referents, to elaborate on the description of a referent in the preceding intonation unit, or to correct a previous description’. A nominal expression which expresses an afterthought is considered an appositional NP which is partially coreferential to a nominal expression in the main clause (Schultze-Berndt and Simard 2012, p. 1025).

True discontinuous NPs are not observed in the Marri Ngarr corpus. While there are a handful of instances where nominal elements describing the same referent are spread through the clause and interrupted by the verb, I analyse these as afterthoughts, and, therefore, two appositional NPs. In (218) - (220) (as well as (217) above), we see two nominal expressions split by the verb. In each example, both nominal expressions share the same referent and one nominal element (either a nominal (218) or nominal classifier (219)³⁹ - (220)) is repeated in the second expression, and followed by an element which provides further information about the referent.⁴⁰ This repetition suggests that these constructions in Marri Ngarr are afterthoughts rather than truly discontinuous NPs.

- (218) naḡji ṭawur ḡilikata, ṭawur malapur
 [naḡci ṭawur] ḡili-kat=a [ṭawur malapur]
 THING tree 1NSG.BUMP.R.PFV-cut=PST tree tall

‘We’d cut the tree, a tall one.’ (JJ: 20080521-MC-Bush-games)

39. Note that in (219), the construction /pundi ḡiḡci/ is used to express ‘five’.

40. Note that while an analysis of the prosodic characteristics of the clause is beyond the scope of the thesis, these constructions often appear to have a low boundary tone on the final syllable of the verb and in most cases a pause following the verb, both seeming to signal the edge of a prosodic unit.

(219) niwir ma ji pulingurpa, ma pundi
 [niwir] [ma= ji] pul-ŋ-kurp=a [ma= pundi
 3PL.PRO MASC DEM.3 3NSG.BUMP.R.PFV-1SG.O-hit=PST MASC hand
 ŋjɪŋji
 ŋjɪŋci]
 one

‘Those five fellas hit me.’

(PT: IG3-015-B: 49)

(220) awu amɲinat, ajilirki
 [awu] am-ŋin-at [a=jilirki]
 ANIM 2SG.PIERCE.IRR-1SG.OBL-PICK.UP ANIM=meat

‘Pick up some beef for me.’

(JoN: IG3-021-B: 69)

4.1.3 Summary

The preceding sections have considered some features of nominal expressions which are thought to provide evidence for or against constituency in nominal expressions. Examination of word order of nominal expressions in Marri Ngarr (§4.1.1) has shown that, when considered functionally, elements in the nominal domain adhere to a strict word order, with most part of speech order variation being explained by variation in function. This functional perspective also reveals some evidence for a Determiner slot in the Marri Ngarr NP. Case-marking characteristics consistently mark the right edge of a nominal expression, providing further evidence of internal structure. Meanwhile, exploration of possible discontinuity of nominal expressions has revealed no true discontinuity in the Marri Ngarr NP. Together, these characteristics provide strong evidence of NP constituency in Marri Ngarr as they demonstrate an internal structure to nominal expressions. These findings are in accordance with the findings of Louagie (2017, pp. 142–143) who shows that there is evidence for NP constituency in around sixty percent of the Australian languages in her sample.

4.2 Nominal classifiers

Marri Ngarr employs a nominal classifier system where entities may be semantically categorised by one of thirteen nominal classifiers. These classifiers are listed in table 4.4 below, along with an example of each of the classifiers being used in a classifier construction with a nominal. An overview of the semantics of the nominal classifiers is given in §4.2.1. Following this the morphosyntactic distinctions between bound nominal classifiers and free nominal classifiers are examined in §4.2.2 and the distinctions between free classifiers and generic nouns are considered in §4.2.3, while §4.2.4 examines the attachment of nominal classifiers to predicates.

<i>/ma=</i>	‘masculine’ (MASC)	<i>/ma=ɬencen/</i>	‘boy’
<i>/muli=</i>	‘feminine’ (FEM)	<i>/muli=putput/</i>	‘pregnant woman’
<i>/je=</i>	‘child’ (CHILD)	<i>/je=jamuɬari/</i>	‘baby’
<i>/awu/, /a=</i>	‘animal/meat’ (ANIM)	<i>/a=ɲawak/</i>	‘mosquito’
<i>/miji/, /mi=</i>	‘edible plant’ (PLANT)	<i>/mi=kaŋalkir/</i>	‘waterlily’
<i>/naŋci/</i>	‘inanimate/tree’ (THING)	<i>/naŋci munŋini/</i>	‘paperbark’
<i>/wudi/</i>	‘water’ (WATER)	<i>/wudi kicer/</i>	‘ocean’
<i>/mari/</i>	‘language’ (LANG)	<i>/mari tindiy/</i>	‘secret’
<i>/wuji/</i>	‘place’ (PLACE)	<i>/wuji wambu/</i>	‘red soil country’
<i>/cepci/</i>	‘fire’ (FIRE)	<i>/cepci ɲure/</i>	‘coals’
<i>/jeɬi/</i>	‘hand-held weapon’ (WEAP)	<i>/jeɬi malawur/</i>	‘axe’
<i>/cendi/</i>	‘spear’ (SPEAR)	<i>/cendi ciβi/</i>	‘hook spear’
<i>/kwazi/</i>	‘short spear’ (SSPEAR)	<i>/kwazi walayu/</i>	‘small bamboo spear’

Table 4.4: Marri Ngarr nominal classifiers

(based on Ford (2010b, pp. 19–21))

4.2.1 Nominal classifier semantics

The types of categories encoded by nominal classifiers cross-linguistically are thought to be organised around the basic properties of animacy, physical properties and function (Aikhenvald 2000, pp. 271–274). Animate entities often have further divisions based on humanness, sex, social status, age and kinship; physical properties are often based on shape, size and direction, material and inherent nature/time stable properties (Aikhenvald 2000, pp. 272–273). Marri Ngarr has four animate categories in its nominal classifier system, with a non-human category for ‘animals/meat’ (ANIM) and human categories with further divisions based on sex and age: ‘masculine’ (MASC), ‘feminine’ (FEM), and ‘child’ (CHILD). Of the non-human classifiers, many categories are associated with the natural world. Entities are conceived of as either members of/semantically associated with⁴¹ the following categories: ‘water/drinkable liquids’ (WATER), ‘fire’ (FIRE), ‘place/time’ (PLACE), ‘animals/meat (ANIM), and ‘edible plants’ (PLANT). Other nominal classifiers categorise for things associated with ‘language/speech’ (LANG) and ‘weapons/danger’ (WEAP), and there are two distinct classifiers for spears, ‘spears’ (SPEAR) and ‘small spears’ (SSPEAR). There is also a ‘residue’ class (THING) whose members include trees and other entities which don’t fit into the aforementioned categories. In terms of the properties thought to be cross-linguistically fundamental to nominal classifier systems, the majority of the non-human classifiers in Marri Ngarr are probably best conceived of as organised around inherent nature properties and/or function. Australian language nominal classifier systems are generally thought to organise around these properties (Dixon 2002, p. 456) and we find many of the same semantic categories across Australian languages (Louagie 2017, pp. 38–39), in particular ‘animal/meat’ and ‘edible plant’ categories (Sands 1995, p. 270; Dixon 2002, p. 455).

Though most nominals in the corpus seem to be able to take a classifier, other nominals, such as those for natural features (such as sun, stars, ground, mountain, clouds etc.), body

41. For example, ‘tea’ is a member of the category ‘water/drinkable liquids’, while ‘firewood’ is semantically associated with the category ‘fire’ but is not itself a type of fire.

parts and kin terms are generally not observed receiving classification.⁴² Exceptions arise when a body part noun refers to an edible animal body part, in which case it takes the ANIM classifier (221), or when a noun which is not classifiable in its normal usage is used in an uncharacteristic way, e.g. the referent for the kin term for ‘brother’ is an animal in (222).

- (221) agwu kumunginkuritkambu ajeri
 a=ku=wu kumbunkin-yurit=kambu a=jeri
 ANIM=DEM.2=WU 1INCL.DU.PUT.R.IPFV-turn=1INCL.DU.SIT.R.IPFV ANIM=tail
 gumburkat
 kumbur-kat
 1INCL.DU.HANDS.R.IPFV-cut

‘We twisted the tail (of the goanna) and broke it off.’ (JoN: IG3-036-B)

- (222) kwani aṅawe jin gan wu kujibut
 kwani a=ṅawe jin kan =wu ku-jibut
 3SG.GO.R ANIM=brother 1SG.PRO ANAPH.DEM =WU 3SG.SIT.R-swim

‘Then my brother (the water rat), he dived (into the water)’
 (JN: 20090226-MC-WaterRat)

While the nominals discussed above generally don’t co-occur with a nominal classifier, other nominals have the ability to combine with more than one classifier. Dixon (1982, pp. 217–218) claims that this ability is a characteristic of a noun classifier system, while in noun class systems, nouns almost invariably only pair with one classifier (see §4.2.2 for further description of the Dixon (1982) noun classifier/noun class distinction, and the morphosyntactically similar distinction between free and bound nominal classifiers in Marri Ngarr). However, in Marri Ngarr both bound classifiers and free classifiers are used in this variable classification. In some cases the change in classifier results in the highlighting of a different function for the same entity, as in the examples below involving the entity ‘tree’, where the inherent nature meaning is present with the residual classifier/classifier for trees /*naṗci*/, while its function as a weapon is highlighted with the WEAP classifier /*jeṭi*/, and the entity ‘tree’ is conceived of as an object for burning with the FIRE classifier /*ceṗci*/. The noun for ‘tree’ is also variably classified in other Daly languages (Green 1997, p. 231; Reid 1997, p. 178; Mansfield 2019, p. 177) with Mansfield (2019, p. 177) noting that in these constructions, the normal classifier-classified structure is semantically reversed when the classifier specifies the entity’s function, rather than expressing the entity’s larger semantic category.

42. Some nominals for natural features are, however, observed co-occurring with the residue classifier THING in word list elicitation (see §4.2.1.9 for examples). In languages with nominal classifier systems speakers often tend to use nominal classifiers in ‘proper’ speech (Dixon 1982, p. 217; Green 1997, p. 233), so classifiers may be more likely to be used in word list elicitation than in natural speech.

/naŋci ɬawur/ ‘tree’
 /je.ɬi ɬawur/ ‘stick (used as weapon)’
 /ceŋci ɬawur/ ‘firewood’

In other cases a change in classifier results in a different entity. The nominal /ciŋi/ co-occurs with the THING classifier to denote a type of pandanus, or with the ANIM classifier to denote ‘freshwater crocodile’. The noun /miniwi/ is classified by the THING classifier to denote ‘canegrass’, by the ANIM classifier to denote ‘small freshwater catfish’ (/a=miniwiŋatin/) or ‘finch’, or by the SSPEAR classifier to denote a type of spear. Nambatu et al. (2009, p. 116) notes that the small freshwater catfish, /a=miniwiŋatin/,⁴³ is common when the little bamboo/ canegrass, /naŋci miniwi/, has new shoots and Nambatu et al. (2009, p. 61) notes that the stems of /naŋci miniwi/ are used to make light spears, i.e. /kwazi miniwi/. Other variably classified nominals such as these are found in Nambatu et al. (2009).

/naŋci ciŋi/ ‘Pandanus Aquaticus’
 /a=ciŋi/ ‘freshwater crocodile’
 /naŋci miniwi/ ‘little bamboo, canegrass’
 /a=miniwiŋatin/ ‘small freshwater catfish’
 /a=miniwi/ ‘finch’
 /kwazi miniwi/ ‘small bamboo javelin’ (Ford, 2010: 20)

Similar formal relationships are found between these same entities in Ngan’gitjemerri. Reid (1997, p. 200) describes the basis for these types of formal associations as one of physical resemblance, shared location, presence in the land during the same time of year, or some kind of metaphoric extension. Reid (2018) notes that the freshwater crocodile resembles a floating pandanus trunk and thus is named accordingly, i.e. ‘pandanus tree animal’. The same association between canegrass, catfish and finches found in Marri Ngarr is illustrated with the forms below for Ngan’gitjemerri.

/jerjine/ ‘Pandanus’
 /a-jerjine/ ‘freshwater crocodile’
 /wujcer/ ‘canegrass’
 /a-wujcerjingini/ ‘baby catfish’
 /a-wujcer/ ‘zebra finch/ star finch/ crimson finch’ (Reid, 2018)

Classification of an entity by more than one classifier in a single nominal construction is rare; however (223) below shows it is possible. Stress does not fall on the MASC classifier /ma=/ here, suggesting it has not formed a new lexical stem with /puli/.

(223) awu mapuli
 awu ma=puli
 ANIM MASC=old
 ‘Old man salt water crocodile’ (JoN: IG3-017-A)

43. The nominal /ŋatin/ is used to express ‘yellow/raw’ in the Marri Ngarr corpus and the noun /jingini/ means ‘raw, uncooked, fresh’ in Ngan’gitjemerri (Reid 2018).

4.2.1.1 MASCULINE, FEMININE and CHILD

Marri Ngarr has three classifiers for human entities: the masculine (MASC) /*ma=*/, feminine (FEM) /*muli=*/ and child (CHILD) /*je=*/. The MASC and FEM classifiers can be used to categorise nouns denoting entities that are already specified for sex:

/ma=me/	‘man’
/muli=muku/	‘woman’
/ma=βindiβindi/	‘old man’
/muli=kunukunu/	‘old woman’
/ma=ɽencen/	‘boy’
/muli=ɽiridi/	‘girl’

Alternatively they can contribute sex information to the phrase:

/ma=wuric/	‘cheeky man’
/muli=wuric/	‘cheeky woman’
/ma=jipezi/	‘little boy/child’
/muli=jipezi/	‘little girl’

Unlike the Murrinhpatha nominal classifier system (Walsh 1997, pp. 282–283), there is no classifier in Marri Ngarr which encompasses both male and female (Aboriginal) people, nor is a distinction between Aboriginal and non-Aboriginal people reflected in the classifier system, and unlike the Marrithiyel and Ngan’gitjemerri systems there is no classifier for NSG, or ‘group’ of people (Green 1997, pp. 243–244; Reid 1997, p. 180). The MASC classifier functions as a default classifier used for groups of people (224) - (225), and in one instance is also used for a non-human entity (226).⁴⁴

(224)	pulimbirmataka	mawunangat
	puli-mbir-matak=a	ma=wunangat
	3NSG.BUMP.R.PFV-3PL.O-meet=PST	MASC=many
	‘They met a lot of people.’	(PT: IG3-024-B)

(225)	ma jek wambu
	ma= jek wambu
	MASC clan red.soil.country
	‘Our clan group is Yek Wambu.’
	(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

44. This example is anomalous: types of wallaby usually receive the ANIM classifier.

(226) **makanijpcer**
 ma=kanicipcer
 MASC=rock.wallaby

‘Rock wallaby’

(JoN: IG3-029-A: 8)

The CHILD classifier /je=/ attaches to entities that are members of the ‘child/children’ category.

/je=purkpurk/ ‘children’
 /je=jamuṭari/ ‘baby’

This form is not listed in Ford (2010b) as a Marri Ngarr classifier, nor is a classifier for this semantic category found in any other Daly language,⁴⁵ though it is found in other Australian languages (Louagie 2017, p. 38). A related form /jeri/ is the noun for ‘child’ in Marrithiyel, and is also used by some Marri Ngarr speakers in the corpus. I analyse /je=/ as a nominal classifier because it exhibits agreement: below in (227) it attaches to both nominals which modify an entity ‘child’. This distribution is comparable to that found for other bound classifiers, as discussed in §4.2.2. The assumed truncation of /jeri/ to the monosyllabic /je=/ supports an analysis of grammaticalisation from independent lexical nominal to bound classifier also discussed in §4.2.2. However, the analysis of /je=/ as a nominal classifier requires further exploration as it is based on very limited data.

(227) je ipezi je ŋiŋji ŋeŋinparupŋaja
 je= jipezi je= ŋiŋci ŋe-ŋin-βarup-ŋa=ja
 CHILD= little CHILD= one 3SG.COOK.R.PFV-1SG.OBL-run.away-MAL=PST

‘One child ran away from me.’

(JoN: IG3-033-B)

4.2.1.2 ANIMAL/meat and edible PLANT

The nominal classifier /awu/~a=/ (ANIM) is generally used to categorise animals and meat. Over one hundred individual animal nouns and animal products such as ‘sugar bag’ co-occur with this classifier in the corpus. A notable exception for ANIM classification in Marri Ngarr is /wacen/ ‘dog’, which is commonly expressed but never classified in the corpus. Though body parts are not usually classified, they can occur with ANIM if they are edible. In word list elicitations, either the free or the bound form of the classifier precedes the animal term; however in longer utterances, it is common for the bound ANIM classifier to be used (or both forms are found on the same NP; see §4.1.1 and §4.2.2). The free form is often used as a sole element of an NP to classify an unexpressed animal term.

45. In Marrithiyel the noun for ‘child’, the related form /jeri/, goes unclassified (Green 1989). Ngan’gitjemmerri data from Reid (1990) shows that the noun for ‘child’ is either unclassified or the gender is specified by the masculine/feminine classifiers, while Murrinhpatha data in Mansfield (2019, p. 178) shows ‘child’ taking the person classifier.

/a=βijelmbu/	‘kookaburra’
/a=ɬamunil/	‘bandicoot’
/a=wunɟki/	‘termite’
/a=papulu/	‘buffalo’
/a=bikibiki/	‘pig’
/a=wukwuk/	‘owl’
/a=ɬarɟi/	‘female Antilopine wallaroo’
/a=wapin/	‘sugar bag’
/a=jeri/	‘(edible) tail’
/a=lejir/	‘(edible) fat’

When classifying ‘meat’, the free classifier is often used over the bound classifier, though both types of classifier are possible for this usage (228a) - (228b) (arguably /awu/ functions as a generic nominal for ‘meat’ in this environment if there is no bound classifier agreement present).

- (228) a. awu ɲawudarni
awu ɲa-wudar=ni
ANIM 1SG.MOUTH.IRR-eat=FUT
‘I’m going to eat beef.’ (UNK: 196905-DT-DO1009402)
- b. wacen kumuɲa ajiɭiki
wacen kumun-ɲa a=jilirki
dog 3SG.PIERCE.R.IPFV-smell ANIM=meat
‘The dog can smell the meat.’ (PT: IG3-039-A)

ANIM is also used to classify ghosts (229), while ancestral beings are classified as humans. In example (230) below, MASC attaches to the ancestral being nominal and this nominal receives ANIM classification only when it has transformed into an animal.

- (229) aɲwac
a=ɲwac
ANIM=ghost
‘Ghost’ (JoN: IG3-031-A: 23)
- (230) ma wiziɟ ga kuri aɲikubura
ma= wiziɟ =ka kuzi adi-ni-ɟubur=a
MASC= purple.swamp.hen =TOP 3SG.SIT.R 3SG.CAUSE.R.PFV-3SG.OBL-turn.over=PST
awu piɲi kulija
awu βiɲi kuzi=ja
ANIM now 3SG.SIT.R=PST
‘Where the man (purple swamp hen) changed into a bird.’
(RM: Awu Ngawak i Awu Djimbetj Yagatiya)

The entity ‘money’ is rendered by the combination of ANIM with the nominal for ‘paperbark’ to denote ‘banknotes’, or with the nominal for ‘rock’ to denote ‘coins’.

/awu=munjini/ ‘banknotes’
/awu ~ a=karila/ ‘coins’

The ANIM plus ‘rock’ combination to denote ‘money’ is also common to Southern Daly (Reid 1997, p. 185; Walsh 1997, p. 283; Mansfield 2019, p. 177). Walsh (1997, p. 283) hypothesizes that the association between money and the ANIM classifier (he describes a general term for ‘money’ which is homophonous with the form for the ANIM class and the generic noun for ‘meat’) is based on the idea that money is a non-Aboriginal idea, and non-Aboriginal people are also assigned to this class. Reid (1990, p. 302) suggests coins may look similar to pearl shells (classified by ANIM) which were once trade goods, while Reid (1997, p. 185) suggests this classification in Ngan’gitjemerri may be connected to the images of (often) deceased people on coins and notes, as well as on the court cards in a deck of cards, which also take this classifier in Ngan’gitjemerri.

/miji/ ~ /mi-/ is the classifier for ‘edible plants’, a category which includes fruit, vegetables, seeds, nuts and edible flowers. Its members also include the terms for ‘tobacco’ and ‘faeces’. In the corpus it is usually the bound classifier which co-occurs with edible plant nouns, where as /miji/ often occurs as a generic nominal for ‘food’, in the same way that the ANIM free form /awu/ has a tendency to function as a generic for meat (see discussion of ANIM above).

/miji jinjildi/ ‘long yam’
/mi=wanj/ ‘blue lily’
/miji kincepci/ ‘big round seed’
/mi=ciβaki/ ‘tobacco’
/mi=wen/ ‘faeces’

4.2.1.3 WATER/drinkable liquid

The WATER classifier /wudi/ is the classifier for drinkable liquids and bodies of water. The same form is used as a generic noun for ‘water’ (231).

/wudi ti/ ‘tea’
/wudi wari/ ‘wet season’
/wudi kicer/ ‘ocean’
/wudi mi/ ‘waterhole’
/wudi derimazi/ ‘deep billabong’
/wudi zadi/ ‘billabong’

(231) naŋ ji kwanijibut na wudi
 naŋ ji kwani-jibut na wudi
 3SG.M.PRO DEM.3 3SG.GO.R.IPFV-SWIM LOC water

‘He is swimming through the water.’

(JoN: IG3-021-A)

In some instances the combination of /wudi/ and a nominal is not the normal nominal classifier-nominal construction: the specific nominal modifies the classifier to describe the entity, e.g. frothy liquid = ‘beer’.⁴⁶ Based on this semantic relationship, some of these constructions could potentially be considered compounds rather than nominal classifier-nominal constructions.

/wudi ŋicazu/	‘beer’ (WATER frothy)
/wudi yati/	‘fresh/drinking water’ (WATER good)
/wudi wipcen/	‘alcohol’ (WATER bad)
/wudi pundi/, /wudi jipezi/	‘creek’ (WATER hand, WATER little)

4.2.1.4 FIRE

Two entities associated with fire are categorised by the FIRE classifier /cepci/ in the corpus. This form is also commonly used as a generic noun for ‘fire’ (232).

/cepci ɬawur/	‘firewood’
/cepci ŋure/	‘coals’

(232)	kudiŋter	na	cepci
	kudi-n-ter	na	cepci
	3SG.HEAT.IRR-2SG.O-heat	LOC	fire

‘Get warm by the fire.’

(PT: IG3-032-B: 18)

4.2.1.5 PLACE/time

The PLACE classifier /wuji/ is used to categorise places including placenames and types of country, as well as terms for time. Example (233) shows the same form functioning as a generic noun for ‘place’. The nominal classifier /da/ in Murrinhpatha has similar semantics (Mansfield 2019, p. 171).

/wuji ŋata/	‘house’
/wuji karkacer/	‘swamp country’
/wuji wambu/	‘red soil country’
/wuji nama/	‘Nama’ (place name)
/wuji walŋaji/	‘dry season’
/wuji nici/	‘nighttime’

46. This is distinct from constructions where a classifier pairs with a modifier but the entity is left unexpressed, e.g. (i). In examples like /wudi ŋicazu/ there is no nominal left unexpressed: the combination of the two forms instead renders the entity ‘beer’. These examples are similar in construction to the /miniwi/ and /ciŋi/ examples in §4.2.1.

(i)	wudi	nipji	ari	kwaŋ
	wudi	nipci	ari	kwaŋ
	WATER	one	DEM.1	3SG.STAND.R

‘There’s one beer here’

(PT: IG3-035-A)

- (233) wanipira wuji ari
 wani-pir=a wuji ari
 3SG.GO.R.PFV-leave=PST PLACE DEM.1

‘He left this place.’

(PT: IG3-033-B: 36)

4.2.1.6 LANGUAGE/speech

/mari/ is the form for the LANG classifier, which is used for entities connected with language and speech. It is present in the language name Marri Ngarr, which is comprised of the LANG classifier and the proximal demonstrative */nar/*. Marrithiyel and Murrinhpatha both have LANG classifiers whose forms are also present in the language names (i.e. */mari/* in Marrithiyel (identical to the Marri Ngarr form), and */muriŋ/* in Murrinhpatha (a form which also occurs as a lexical verb for speech in Marri Ngarr).⁴⁷ The most common use of LANG in the corpus is where it co-occurs with verbs of speech and, rather than classifying an entity, it appears to classify the predicate (234) (see §4.2.4 for discussion of predicate classification).

- /mari mitiŋ/* ‘meeting’
/mari tindiŋ/ ‘secret’
/mari kijiri/ ‘whisper’

- (234) naŋ mari ŋiminija
 naŋ mari ŋimi-ni-ja
 3SG.M.PRO LANG 1SG.SAY/DO.R.PFV-3SG.M.OBL=PST

‘I told him.’

(HK: 1972-MW-M02004364B)

4.2.1.7 hand-held WEAPON

A nominal classifier common to Western and Southern Daly languages, including Marri Ngarr (Green 1997, pp. 234–235; Reid 1997, p. 196; Tryon 1974, p. 106; Walsh 1997, p. 257) categorises hand-held weapons used for fighting and hunting, such as boomerangs (which are held and used like a club rather than thrown in the Daly region (Green 1997, p. 234)), nulla nullas and digging sticks.

- /je.ŋi kuŋcikin/* ‘boomerang’
/je.ŋi makulβi/ ‘nullanulla’
/je.ŋi ɬawur/ ‘stick’
/je.ŋi pundi/ ‘fist’
/je.ŋi deŋmezi/ ‘lightning’
/je.ŋi kat/ ‘playing cards’
/je.ŋi karila/ ‘rock (used as weapon)’

47. Many other Western Daly languages also have names beginning with */mari/~/mara/*, though whether this form functions as a classifier in these languages is unclear.

In Marri Ngarr, the form of this WEAP classifier is /*jeŋi*/. This category includes ‘fist’, as well as ‘lightning’ and both of these entities exhibit the same categorisation in other Daly languages.⁴⁸ Like in Murrinhpatha WEAP also categorises playing cards in Marri Ngarr, which can be thought of as ‘striking’ the ground when they are played (Walsh 1997, p. 284). Green (1997) and Reid (1997) note that makeshift implements used for fighting can also use the ‘hand-held weapon’ classifier but must look like clubs or sticks to be classified as such, and Green (1997, p. 235) comments that the noun for ‘rock’ cannot be classified by WEAP. In Marri Ngarr, however, this combination is allowed when a rock is used as a weapon, suggesting the WEAP category does not specify for shape.

4.2.1.8 SPEAR and short spear (SSPEAR)

The form /*cendi*/ is generally used as a generic noun for ‘spear’ but is also found in the corpus in classifier constructions with two nominals, where it functions as the SPEAR classifier. Further classifier-nominal pairs are found in Ford (2010b, p. 20) and are exemplified below. In Marrithiyel, the form /*çendi*/ is used to classify long spears, determined by length as well as the woomera used to throw them (Green 1997, p. 234), while short spears use a distinct classifier with the form /*gazi*/ (see Marri Ngarr equivalent below).

/cendi ciβi/	‘hook spear’	
/cendi karaβir/	‘(type of) spear’	
/cendi waja/	‘fish spear’	(Ford, 2010: 20)
/cendi mada/	‘long bamboo spear’	(based on Ford, 2010: 20)
/cendi malaβat/	‘stonetipped spear’	(Ford, 2010: 20)

/*kwazi*/ only occurs in combination with two nouns in the corpus, while Ford (2010b, p. 20) provides another example and analyses this form as the ‘small spears’ classifier. Green (1997, p. 234) describes a formally almost identical classifier in Marrithiyel /*gazi*/ which classifies short spears, and the Ngan’gitjemerri nominal classifier system also distinguishes between long and short spears. Based on this information this classifier category is analysed as ‘short spear’ (SSPEAR).

/kwazi walayu/	‘small bamboo spear’	
/kwazi miniwi/	‘small bamboo javelin’	(based on Ford, 2010: 20)
/kwazi karila/	‘rock (used as weapon)’	

However, further research is needed to examine whether the two classifiers associated with spears do indeed have classifier status, as they do not exhibit many of the characteristics seen in other classifiers in the system (see discussion in §4.2.3). Mansfield (2019, p. 172) notes that while older speakers use a classifier for spears in Murrinhpatha, younger speakers, who don’t use spears, only use a generic noun for ‘spear’. This suggests that a loss of cultural significance may result in a loss of classifier status.

48. Walsh (1997) and Reid (1997) suggest that ‘lightning’ is included in this category in Southern Daly as it is thought to ‘strike’ like other members of the category; however Green (1997, 251 fn 7) notes there is no evidence for this in Marrithiyel based on the verbs that co-occur with it. It has also been suggested by a Marrithiyel speaker that lightning was connected to clubs and fighting in mythology Green (1997, 251 fn 7).

4.2.1.9 THING/tree/residue

The THING classifier /*naŋci*/ is used to categorise trees and a variety of other inanimate entities. Marri Ngarr classifiers are generally formally similar to those of Marrithiyel, but in the case of THING, similarities lie with the Murrinhpatha residue classifier /*naŋti*/,⁴⁹ while the Marrithiyel and Ngan'gitjemmerri classifier forms for 'trees/things' are cognate with the Marri Ngarr generic noun for 'tree', /*tawur*/.

/ <i>naŋci mizen</i> /	'Pandanus'
/ <i>naŋci ɬinɬi</i> /	'Milkwood tree'
/ <i>naŋci βilpil</i> /	'vine'
/ <i>naŋci miti</i> /	'dot'
/ <i>naŋci miriwi</i> /	'hole'
/ <i>naŋci pindiŋi</i> /	'nest'
/ <i>naŋci kiɬiɬi</i> /	'game'
/ <i>naŋci maŋti</i> /	'music'
/ <i>naŋci ɬer</i> /	'fog/mist'
/ <i>naŋci willi</i> /	'star'
/ <i>naŋci βirek</i> /	'ground'
/ <i>naŋci βar</i> /	'pus'

4.2.2 Bound/free classifier distinction

Dixon (1982, pp. 213–218) distinguishes two types of nominal categorisation systems: 'noun class' and 'noun classifier' systems. A noun class system is defined as a closed class containing a small number of bound markers which can attach to nouns but obligatorily attach to other constituents of the NP. All nouns in a language are categorised and overwhelmingly each noun belongs to one unique class. Noun classifier systems on the other hand are comprised of a relatively large set of independent markers. Not all nouns in the system take a noun classifier, and being categorisable by more than one noun classifier is not unusual. It can be difficult to distinguish between noun classifiers, generic nouns and forms which can function as both. Therefore, it can also be hard to say exactly how many noun classifiers exist in a system (Dixon 1982, pp. 213–218). Dixon (1982, p. 218) claims that it is generally straightforward to identify the type of nominal classification system a given language possesses. However, as we will see below, not all the Marri Ngarr nominal classifier data fits neatly into the description of either system, having evidence for both noun class and noun classifier types within the one system (I term the two types 'bound (nominal) classifiers' and 'free (nominal) classifiers' respectively).

The majority of the forms in the Marri Ngarr nominal classification system fit the Dixon (1982) definition of noun classifier: ten of the forms are independent and optionally occur prior to an entity-denoting nominal (235), a modifier (236), or alone (237), to semantically classify the entity being referred to. As was illustrated in §4.2.1, occasionally a particular nominal can pair with different free classifiers to express different entities.

49. This Murrinhpatha classifier is phonetically identical to the Marri Ngarr THING classifier, but written differently phonemically.

(235) wudi ti ɲirbaɬa
 wudi ti ɲir-bac=a
 WATER tea 1SG.HANDS.R.IPFV-hold=PST
 ‘I brought the tea.’ (HK: 1972-MW-M02004365A)

(236) wudi ɲiɲɟi ari kwaɲ
 wudi ɲiɲci ari kwaɲ
 WATER one DEM.1 3SG.STAND.R
 ‘There’s one beer here.’ (PT: IG3-035-A)

(237) wudi ɲulgudak ɲiɲɟiɲarin
 wudi ɲul-yudak ɲiɲciɲarin
 water 1SG.BUMP.R.PFV-drink sometimes
 ‘I drink beer sometimes.’ (PT: IG3-021-A)

At least some of these free classifiers also appear to function as generic nouns (238) - (239) (see discussion on the distinction between free classifiers and generic nouns in §4.2.3).

(238) naɲ ji kwaniɟibut na wudi
 naɲ ji kwani-ɟibut na wudi
 3SG.M.PRO DEM.3 3SG.GO.R.IPFV-swim LOC water
 ‘He is swimming through the water.’ (JoN: IG3-021-A)

(239) amumu ɲeβiβiɬ na ceɲɟi
 a=mumu ɲe-biɬ~biɬ na ceɲci
 ANIM=turkey 2SG.COOK.IRR-REDUP~COOK LOC fire
 ‘Cook the turkey on the fire.’ (HK: 1972-MW-M02004365A)

While ten of the nominal classifiers fit the Dixon (1982, pp. 213–218) ‘noun classifier’, four other markers in the system at least partly fit the profile of ‘noun class’ markers. These are bound classifiers which attach to the entity-denoting nominal and/or modifiers. However, they don’t strictly fit the definition of ‘noun class’ markers. Under the Dixon (1982) definition it is obligatory for noun class markers to exhibit agreement, attaching to NP elements apart from the entity-denoting nominal. In Marri Ngarr attachment of bound classifiers to nominal modifiers is possible (it is much more common with the ANIM classifier than other bound classifiers) as shown in (240) - (241a), but optional:

(243) a. ma ji piɲiwinɲerpaja awu karila
 ma= ji piɲ-win-cerpa=ja awu karila
 MASC= DEM.3 3NSG.SWING.R.PFV-3DU.OBL-ask=PST ANIM money
 ni
 =ni
 =DAT

‘They asked those two fellas for money.’ (JoN)

b. ɲiɲerpeja aga|a ni
 ɲiɲ-cerpa=ja a=karila =ni
 1SG.SWING.R.PFV-ask=PST ANIM=money =DAT

‘I asked him for money’ (PT: IG3-024-B)

(244) a. miji jɲildi mazi kinimunat
 miji jɲildi mazi kinimun-at
 PLANT long.yam belly 2SG.PIERCE.R.IPFV-pick.up

‘Do you like yams?’ (HK: 1972-MW-M02004365A)

b. muli ji kanigudir mijiɲildi ni
 muli= ji kani-yudir mi=jɲildi =ni
 FEM= DEM.3 3SG.GO.R.IPFV-dig PLANT=long.yam =DAT

‘The woman is digging for yams.’ (HK: 1972-MW-M02004364B)

Examples (245) - (246) show that both types of forms can appear in the same NP. Here, the free ANIM classifier precedes a modifier to which the bound ANIM classifier is attached. This evidence of both free and bound forms existing for the one classifier and displaying agreement properties suggests that a process of grammaticalisation is in progress, with the ANIM classifier moving from a free classifier towards a bound classifier, though characteristics such as optional marking show that it is not yet at the stage of a true noun class marker in Dixon (1982) terms. (247) involving the MASC classifier may show the next stage of this evolution, where the classifier has lost any former free classifier form and instead has a bound classifier attaching to both nominals (the MASC classifier has no doubt developed from the nominal for ‘man’, /me/).

(245) awu aɲiɲi ɲirindipa
 awu a=ɲiɲci ɲiriɲ-zip=a
 ANIM ANIM=one 1NSG.SWING.R.PFV-spear=PST

‘We (plural) speared one animal.’ (PT: IG3-023-B)

- (246) kwani wuri awu aɲalpu kipurkwani
kwani =wuri awu a=ɲalpu ki-pur=kwani
3SG.GO.R =towards ANIM ANIM=many 3SG.MOUTH.R.IPFV-hold.PL=3SG.GO.R.IPFV
‘He’s coming with a lot of meat.’ (PT: IG3-023-A)

- (247) maβindiβindi magilɪɲa
ma=βindiβindi ma=kilɪɲa
MASC=old.man MASC=big
‘Big old man.’ (RK: 197207-MW-M02004362B)

This mix we see above of both noun class markers and noun classifiers occurring in one nominal classification system is unusual cross-linguistically, as is the existence of more than one nominal classification system in a language. Aikhenvald (2000, pp. 191–192, 202) reports that noun class and noun classifier systems co-exist in Chinantec (Mexico), ‘Dongo-ko (Niger-Congo) and possibly Baniwa (north Arawak). More recent typological research in Fedden and Corbett (2017) uncovers further examples of languages with systems which have characteristics of both noun class markers and noun classifiers, though the numbers are still low; they report around 20 languages with either mixed systems or more than one system per language. Fedden and Corbett (2017) move away from the binary distinction argued for by Dixon (1982), proposing a more gradient typology to capture nominal classification characteristics in these languages. Considering Australian languages, Sands (1995, pp. 279–281) documents a noun class system in combination with a ‘rudimentary noun classifier system’ in Wardaman and describes noun class markers and ‘classifierlike nouns’ co-existing within the nominal classification system of Waray. A mixed system of noun class markers and noun classifiers is also found in Marrithiyel and Ngan’gitjemerri (Green 1997; Reid 1997).⁵⁰

In Marri Ngarr we clearly see one nominal classification system where free and bound classifiers co-exist and where there is evidence that the bound classifiers have formed through grammaticalisation from the free classifiers. That this grammaticalisation is taking place within this system is clear from data involving the ANIM and PLANT classifiers. The free and bound forms of these classifiers are formally similar, and agreement patterns show their semantic similarity in that they can classify the same types of entities. Sands (1995, pp. 285–287) notes Australian languages with nominal classification

50. One difference in the Marrithiyel and Ngan’gitjemerri systems as compared with the Marri Ngarr system is that they exhibit agreement of the noun classifiers, as illustrated for Marrithiyel in (i). Green (1997, pp. 247–8) notes that this type of agreement in Marrithiyel is ‘unwieldy’ and hypothesizes that it may have arisen relatively recently and that over time these free forms would become truncated bound forms. Green (1997, p. 247) also notes that this type of agreement using free nominal classifiers occurs in the Marri languages, including in Marri Ngarr; however I find no data in the corpus of agreement being signalled by free nominal classifiers.

- (i) wudi θuzu wudi φurbur wudi gati
WATER froth WATER cold WATER good
‘A good cold beer’ (‘water froth’ = beer) (Marrithiyel: Green 1997: 246)

systems occur along a continuum with systems exhibiting characteristics ranging from generic nouns to noun class prefixes, and suggests that these systems have developed via grammaticalisation beginning with generic nouns. The Marri Ngarr system provides a snapshot of this grammaticalisation in progress.

A related but slightly different process of re-analysis involving the ANIM classifier appears to be taking place on some entity-denoting nominals for animals in Marri Ngarr. Generally, terms for animals can vary as to whether they take the free or bound form of the ANIM classifier. Bound classifiers are considered clitics as stress placement is unaffected by their presence (see §2.2.3 for a general overview of stress).

/múcer/ ~ /a=múcer/ ~ /awu múcer/ ‘emu’

However, several of these animal terms can appear with both the free classifier and the bound classifier. It seems as though the bound classifier has fused with the nominal, creating a new lexical stem, which is then (re-)classified by the free classifier. However, the animal term still retains its original stress pattern, unaffected by the presence of the bound classifier, suggesting that it is still a proclitic.⁵¹

kíjni ~ a=kíjni ~ awu a(=)kíjni ‘snake’ (lives in billabong)
 jín ~ a=jín ~ awu jín ~ awu a(=)jín ‘carpet snake’

4.2.3 Free classifier/generic noun distinction

Thus far in the discussion about nominal classification I have been referring to free nominal classifiers but have not discussed criteria with which to distinguish them from nouns with generic semantics. This section addresses this issue.

In some Meso-American and Western Austronesian languages, as well as isolated languages of the Amazon and East and Southeast Asia, we find a construction where an NP element co-occurs in a construction with a specific noun. The NP element semantically categorises the noun and is analysed as a noun classifier (Aikhenvald 2000, pp. 82–97; Grinevald 2000, pp. 64–5). This is exemplified below in (248) from Jacaltec (Kanjobalan Mayan).

(248) xil naj xuwan no7 lab’a
 saw CL:MAN John CL:ANIMAL snake
 ‘(man) John saw the (animal) snake.’ (Jacaltec: Craig 1986, p. 264)

In some languages of Australia, we find NP constructions which appear to be identical syntactically:

51. This type of construction, where the bound form occurs on the Head, is distinct from constructions such as (245) - (246) above which exhibit agreement on a modifier.

(249) **mayi jimirr bama-al yaburu-ngu julaal**
 vegetable-ABS yam-ABS person-ERG girl-ERG dig-PAST

‘The (person) girl dug up the (vegetable) yam.’

(Yidiny: Dixon 1982, p. 185)(bracketing mine)

In the Australian context, this type of construction is often thought to be comprised of a noun with generic semantics appearing adjacent to a more specific noun and termed a ‘generic-specific’ construction, or alternatively it is thought to involve a ‘true’ noun classifier - specific noun combination (Dixon 1982, pp. 185–186, 212–214; Sands 1995, pp. 269–270; Harvey and Reid 1997; Aikhenvald 2000, pp. 82–97; Grinevald 2000, p. 65). Distinguishing between generic nouns and noun classifiers can be difficult: generic nouns are one of the most common sources of noun classifiers (Aikhenvald 2000, pp. 353–361) and noun classifiers generally appear quite lexical in nature, e.g. they do not exhibit the agreement of noun class markers⁵² (Sands 1995, p. 270; Aikhenvald 2000, p. 81). Aikhenvald (2000, pp. 86–87) describes productivity as a factor in distinguishing the two elements: noun classifiers categorise a much larger range of the lexicon than generic nouns. The scope of the element is also an important point of consideration, with noun classifiers thought to scope over the whole NP (Aikhenvald 2000, p. 81). This allows for the noun classifier to occur on its own (250), or with a modifier in the absence of a specific noun, where the noun classifier refers to the unexpressed noun anaphorically (Aikhenvald 2000, pp. 87–89; Seifart 2010, p. 728).

(250) **xil naj no7**
 saw CL(MAN) CL(ANIMAL)

‘He (man non-kin) saw it (animal).’

(Jacaltec: Craig 1986, p. 284)

Frequency of use is also mentioned as a factor in distinguishing noun classifier from generic noun (Sands 1995, p. 270; Aikhenvald 2000, p. 86). Sands (1995, p. 270) contrasts nominal constructions in Limilngan, where NP elements optionally appear in a construction with a specific noun, with those found in Yidiny (Dixon 1982, ch.6) in which an NP element is usually present with a specific noun. She suggests that more regular inclusion of the NP element in these constructions, such as is the case for Yidiny, is an indicator that the NP element has reached noun classifier status (while the elements in Limilngan are analysed as generic nouns).⁵³ Seifart (2010, p. 728) also notes that noun classifiers often develop from nouns with generic meanings, and become semantically bleached as they grammaticalise. Language-specific criteria often play a role in distinguishing between generic nouns and noun classifiers (Aikhenvald 2000, p. 85). In Yidiny, one criterion for identifying a noun classifier is co-occurrence with a particular form of an interrogative/indefinite pronoun. There are two interrogative/indefinite pronouns in the language, and one of these forms occurs almost exclusively with noun classifiers, while

52. Discussion in §4.2.2 provides some Daly language exceptions to this restriction against noun classifiers exhibiting agreement.

53. Louagie (2017, p. 32) notes that none of the languages in her Australian language sample exhibit obligatory inclusion, but that obligatory inclusion is not even observed in Jacaltec, thought to be the prototypical noun classifier language (Grinevald 2000, p. 80).

classifiers (254) - (256) as well as the forms /*naŋci*/ and /*wudi*/ (257) - (258), and this construction is not available for other nominals. That these free forms also occur in a construction in which bound classifiers participate suggests that the free forms are nominal classifiers.

(254) *ŋilimudiŋina* *ambu me*
ŋili-mudi=ŋin=a *ambu =ma*
 1SG.BUMP.R.IPFV-see=1SG.GO.R.IPFV=PST **NEG** =**MASC**

‘I was looking around for him but noone was there.’ (JN: IG3-012-A)

(255) *jin* *ambu mi*
jin *ambu =mi*
 1SG.PRO **NEG** =**PLANT**

‘I’ve got no tobacco.’ (PT: IG3-015-B)

(256) *amba*
ambu=a
NEG=ANIM

‘No meat.’ (JoN: IG3-021-B)

(257) *ambu naŋji*
ambu naŋci
NEG **THING**

‘Nothing.’ (JoN: IG3-021-B)

(258) *ambu wudi* *ϕiŋi dataka* *na bili ken*
ambu wudi *βiŋi da-tak=a* *na bili ken*
NEG **WATER** **now** **3SG.HEAT.R.PFV-dry.up=PST** **LOC** **billy** **can**

‘The billycan’s empty.’ (PT: IG3-037-B)

Many of these forms occur on their own in NPs, or with a nominal modifier, where they appear to serve a classification function. In (259) - (260) the element /*ceŋci*/ acts as a classifier of things associated with fire to classify the unexpressed referent ‘wood/sticks (for burning)’, as opposed to expressing ‘fire’. In (261) - (262), the element /*naŋci*/ classifies the unexpressed referents ‘clothes’ and ‘tree’, rather than expressing ‘thing(s)’.

(264) *miji βiŋi kinβizəkuzija*
miji βiŋi kɪŋ-pi-zəkɪ=kuzi=ja
PLANT now 3SG.SWING.R.IPFV-heat-hit.PL=3SG.SIT.R.IPFV=PST

‘Then he started trying to smash them (cycads) open’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider))

Additionally, a feature observed for a small number of these free NP elements (as well as the MASC bound classifier) is that they appear to classify predicates (§4.2.4). In (265) - (266), the element immediately precedes the verb and does not appear to be associated with an argument. While the classification function of classifiers may extend to classification of predicates, this would presumably not be a feature of a generic noun.

(265) *jeɣi ŋumbuŋɪni*
jeɣi ŋumbuŋ-ci=ni
WEAP 1INCL.DU.SWING.IRR-fight=FUT

‘We’re gonna have a fight.’ (PT: IG3-030-B)

(266) *naɣi mari kandiniŋinmuriŋ*
nadi mari kandi-ni-ŋin-muriŋ
2DU.PRO LANG 2.SIT.R-(U)AUG.S>MIN.O-1SG.OBL-talk

‘You two were talking to me.’ (PT: IG3-024-B: 42)

The form /*kwazi*/ only occurs in combination with two entity-denoting nominals in the corpus, while one other combination is reported in Ford (2010b, p. 20) (see examples in §4.2.1.8) and shows none of the morphosyntactic evidence described above to suggest it is a classifier. However, this element is in complementary distribution with two other elements /*jeɣi*/ and /*awu*/, which were previously shown to have characteristics of classifiers (see above), providing some evidence that /*kwazi*/ has the same classifier status (267) - (269).⁵⁵

(267) *jin ŋulipizaja* *kwazi karila*
jin ŋuli-pi-zəkɪ=ja *kwazi karila*
1SG.PRO 1SG.BUMP.R.PFV-head-hit.PL=PST SSPEAR rock

‘I hit him in the head with a rock.’ (PT: IG3-032-A)

55. The speaker also comments that /*jeɣi*/ could be used in place of /*kwazi*/ in (267).

- (268) *ŋulipizaja* *puŋidit je.ɟi kaɭa ɲarin*
ŋuli-pi-zaɭ=ja *puŋidit je.ɟi karila =ɲarin*
 1SG.BUMP.R.PFV-head-hit.PL=PST head WEAP rock =INSTR
 ‘I hit him in the head with a rock.’ (HK: 1972-MW-M02004364A)

- (269) *ŋiŋɲerpeja* *awu karila ni*
ŋiŋ-cerpe=ja *awu karila =ni*
 1SG.SWING.R.PFV-ask=PST anim rock =DAT
 ‘I asked him for money.’ (PT: IG3-025-A)

Based on the corpus data, the following NP elements show evidence in support of a free classifier (and sometimes bound classifier) analysis: /*ma=*/ MASC, /*awu/* ~ /*a=*/ ANIM, /*miji/* ~ /*mi=*/ PLANT, /*naɲci/* THING, /*wudi/* WATER, /*ceɲci/* FIRE, /*je.ɟi/* WEAP, /*mari/* LANG and /*kwazi/* SSPEAR. As for the remaining NP elements, /*wuji/* and /*cendi/*, which appear in NP constructions where they precede an entity-denoting nominal, there is no morphosyntactic evidence to clearly show they have grammaticalised to the status of nominal classifier. These forms do not exhibit any of the characteristics described above such as agreement, occurrence in negative existential constructions, anaphoric usage, predicate classification or complementary distribution with other recognised classifiers, nor do they occur on their own or with an NP modifier where they clearly classify an unexpressed nominal referent. Despite the lack of morphosyntactic evidence these elements are currently analysed as nominal classifiers based on their ability to co-occur in NP constructions with entity-denoting nominals, coupled with the fact that a nominal classifier system exists in the language, so it makes sense that these elements which appear in the same type of construction (i.e. co-occurring with a specific nominal) would form part of the same system. /*cendi/* (and /*kwazi/*) are used very infrequently compared to most other classifiers, so it may be the case that we simply observe them in less of the range of possible classifier constructions than we see for more productive classifiers.

Another form /*ɣari/* is also analysed as a classifier for ‘grasses’ in Ford (2010b, p. 19) and the phonologically similar form /*weri/* is listed as a classifier with the same semantics in Marrithiyel (Green 1997, p. 237). The example below shows that types of grass are classified by the THING classifier in Marri Ngarr and another example in (270) shows that this form is used as a generic for ‘grass’. /*ɣari/* is never observed in combination with an entity-denoting nominal and, therefore, based on my corpus data /*ɣari/* is considered a fully lexical generic noun.

/*naɲci dembirir/* ‘chewing grass’

- (270) *jin* *wudi ɣari* *ɲaɟiwawaja*
jin *wudi ɣari* *ɲadi-wawa=ja*
 1SG.PRO water GRASS 1SG.CAUSE.R.PFV-spray=PST
 ‘I watered the grass.’ (PT: IG3-037-B: 37))

Cognate forms of the generic for ‘tree’ in Marri Ngarr, /*tawur*/, are used in Marrithiyel and Ngan’gitjemerri as classifiers for ‘trees/things’ (Green 1997; Reid 1997). There is no evidence of this element being used as a nominal classifier in Marri Ngarr. It is commonly used as a generic for ‘tree’ and can itself be classified by the ‘tree/residue’ classifier /*napci*/ (271).

- (271) *naŋ* *ji* *mundak* *naja* *ceŋapipaca*
naŋ *ji* *mundak* *naja* *ceŋa-pi-βac=a*
 3SG.M.PRO DEM.3 previously past 3SG.STAND.CMPLX.R.PFV-head-jump=PST
 naŋji *tawur* *ŋiŋji*
 napci *tawur* *ŋiŋci*
 THING **tree** **one**

‘That man jumped over the log before.’ (HK: 1972-MW-M02004364A)

The various features illustrated for the NP elements above provide some evidence that these elements are true nominal classifiers, as opposed to generic nouns. Some of the features identified, such as scoping over the NP and having an anaphoric function, are features that have been identified for noun classifiers cross-linguistically, while others, such as agreement characteristics and occurrence in negative existential constructions, are more local features, but also found in other Daly languages. The variation we see in the range of constructions these elements participate in illustrates how each element varies in its developmental stage from fully lexical generic noun to the more grammatical category of free nominal classifier (and beyond towards bound nominal classifier), and demonstrates why free classifier membership can be difficult to assess. A related point is that, while most of these forms display characteristics of free classifiers, this does not necessarily mean that these forms consistently function as classifiers. While the generic noun for ‘water’ /*wudi*/ has become the free classifier for ‘water/drinkable liquids’ (273), in many examples it seems to express its generic noun semantics (272). This suggests that /*wudi*/ has two separate functions (see §4.1.1 for discussion of functional variation and how this relates to the NP template slots).

- (272) *naŋ* *ji* *na* *wudi* *jaŋadima*
naŋ *ji* *na* **wudi** *caŋa-dim=a*
 3SG.M.PRO DEM.3 LOC **water** 3SG.STAND.CMPLX.R.PFV-disappear=PST

‘He drowned in the water.’ (JN: IG3-012-B)

- (273) *arkambe* *niŋ* *wudi* *kidipurkandi*
arka-mbe *niŋ* **wudi** *kindir-pur=kandi*
 amount-WH 2SG.PRO **WATER** 2sg.hands.r.ipfv-hold.PL=2SG.SIT.R.IPFV

‘How many beers have you got?’ (JoN: IG3-030-A)

4.2.4 Event classification

While nominal classifiers usually classify nominals in the NP, they occasionally immediately precede or attach to various types of predicates, or sometimes whole clauses. This is mostly observed for the MASC bound classifier which commonly attaches to nominal predicates (274) - (276),⁵⁶ but is also observed on verbs (277), and (278) where it attaches to the verb as well as the nominal predicate, or in (279) where it attaches to the negator.

(274) maṭaŋi wiŋɛn
 ma=ṭaŋi wiŋcen
 MASC=ear bad

‘He’s deaf.’

(JoN: IG3-015-A)

(275) jin ma cipkimbi
 jin ma= cipkimbi
 1SG.PRO MASC= dirty

‘I’m dirty.’

(PT: IG3-034-A)

(276) ma ɸijim kani
 ma= βijim kani
 MASC= alive 3SG.GO.R

‘He’s alive.’

(JoN: IG3-025-A)

(277) ma guriŋmiŋiŋitaŋgiguniŋ
 ma= kudin-ŋ-mi-ŋit~ŋit-aŋki=kun-ŋ
 MASC= 3NSG.CAUSE.R.IPFV-DU.S.INTR-APPL-RECIP~hide-RECIP=3NSG.GO.R.IPFV-DU.S.INTR

‘Those two men are hiding from each other’

(JJ: RN5-002-A)

(278) ma kipiɸacbackani ma wuric
 ma= kipi-βac~βac=kani ma= wuric
 MASC= 3SG.SWING.R.IPFV-REDUP~jump=3SG.GO.R.IPFV MASC= cheeky

‘He’s always causing trouble, he’s cheeky.’

(PT: IG3-031-A)

56. The example in (275) is unusual in that the classifier is categorising a first person, rather than a third person referent.

(279) **ma** **ambu** **kanimurij**
ma= **ambu** **kani-murij**
MASC= **NEG** **3SG.GO.R.IPFV-talk**

‘He can’t talk.’

(PT: IG3-015-A)

The role of the nominal classifier in these constructions is unclear. Similar constructions are reported for Murrinhpatha, where the nominal classifier is analysed as either cross-referencing an argument, or categorising the predicate (Mansfield 2019, p. 179). Reid (1997, pp. 203–206) describes constructions in Ngan’gitjemerri where the nominal classifier can attach to verbs or full clauses and states that this type of construction ‘deriv[es] the functional equivalent of a relative clause’. The Marri Ngarr data could alternatively be evidence of early stages of grammaticalisation of nominal classifiers into predicate argument markers - see Singer (2016) for examination of this topic in Mawng.

Example (280) below contains the same predicate as (275) in the absence of the nominal classifier, showing that the nominal classifier is not necessary for formation of a nominal predicate. In (275) it may simply be that nominal classifiers aren’t restricted to nominals as their attachment site and may attach to the predicate to express classificatory information about a referent if there is not a suitable nominal available (recall from §4.1.1 that nominal classifiers usually do not attach to personal pronouns).

(280) **ju** **ɲani** **jin** **cipkimbi**
ju **ɲani** **jin** **cipkimbi**
yes **body** **1SG.PRO** **dirty**

‘Yes, my body is dirty.’

(JoN: IG3-023-A)

This association with the predicate or clause is not only observed with bound classifiers (in particular MASC). A small number of examples in the corpus contain a free classifier which immediately precedes the verb or negator. In these examples the classifier does not seem semantically appropriate for categorisation of arguments and is potentially classifying the event itself (281) - (283).

(281) **jeɻi** **ɲumbuɲɲini**
jeɻi **ɲumbuɲ-ci=ni**
WEAP **1INCL.DU.SWING.IRR-fight=FUT**

‘We’re gonna have a fight.’

(PT: IG3-030-B)

(282) **naɻi** **mari** **kandiniɲinmurij**
nadi **mari** **kandi-ni-ɲin-murij**
2DU.PRO **LANG** **2.SIT.R-(U)AUG.S>MIN.O-1SG.OBL-talk**

‘You two were talking to me.’

(PT: IG3-024-B: 42)

- (283) **mari ambu kunmelningimuriṅnim**
mari ambu kunmel-ni-ṅki-muriṅ=nim
 LANG NEG 3PL.GO.R.IPFV-(U)AUG.S>MIN.O-1INCL.DU.OBL-talk=AUG
 ‘They’re not talking to us.’ (PT: IG3-022-B)

Evidence from Ngan’gitjemerri suggests that nominal classifiers may sometimes play a role in indicating nominal predication. In Ngan’gitjemerri, agreement tends to occur either on all modifiers in the NP (284), or none at all (though classification of the head is obligatory) (Reid 1997, p. 168).

- (284) **miji mi-meli mi = kiji mi = warakma mi = ṅaji**
VEG VEG-purple.plum VEG=this VEG=three VEG=mine
 ‘These three purple plums of mine’
 (Reid 1997, p. 168, some glosses changed)

When a nominal classifier occurs on a modifier at the right edge of the NP but is absent from a modifier closer to the head (the left edge), this signals that the marked modifier is acting as a predicate (Reid 1997, pp. 168–169). Contrast (285a) which takes classifier marking on both modifiers, with (285b) where agreement marking occurs on the right-most modifier only, and this modifier is interpreted as a predicate.

- (285) a. **wa = jedi wa = wunu wa = leṅgir**
MASC=man MASC=that MASC=bad
 ‘that bad man’ (Reid 1997, p 169)
- b. **wa = jedi wunu wa = leṅgir**
MASC=man that MASC=bad
 ‘That man is bad.’ (Reid 1997, p 169)

More data would be necessary to examine whether the type of predication signalling found in Ngan’gitjemerri is also present in Marri Ngarr. The example pair below exhibits a similar type of variable positioning for the bound classifiers as was seen in the Ngan’gitjemerri examples above; however it is unclear (to the author) whether the modifier in (287) should be interpreted predicatively (as indicated via the question mark following the predicative interpretation).

- (286) **maḽindiḽindi magiḽiṅa**
ma=ḽindiḽindi ma=kiliṅa
MASC=old.man MASC=big
 ‘Big old man.’ (RK: 197207-MW-M02004362B)

(287) *jinildi migilija*
jinildi mi=kilija
 long.yam PLANT=big

‘Big long yam/The long yam is big(?)’ (RK: 197207-MW-M02004362B)

4.3 Nominals

4.3.1 Nouns and adjectives

In Australian languages it is often difficult to find morphosyntactic properties to distinguish between NOUN and ADJECTIVE parts of speech (Dixon 2002, p. 67). Many Australian languages do not make this distinction, instead having one class of NOMINALS comprised of both types of words (Dixon 1980, p. 272). Dixon (2004, pp. 22–26) identifies various morphosyntactic criteria useful for distinguishing nouns from adjectives cross-linguistically. For example, differences in noun class marking can distinguish nouns from adjectives: while nouns can normally take only one noun class, adjectives more freely take any noun class as they are simply agreeing with the head noun. Reduplication of a noun may differ in meaning compared with reduplication of an adjective. In Emmi, reduplication of nouns marks plurality while reduplication of adjectives marks intensity (Ford 1998, p. 140).

<i>/jurwin/</i>	‘rock; money’	
<i>/jurwin+jurwin/</i>	‘lots of rocks; lots of money’	
<i>/dukanji/</i>	‘big’	
<i>/dukduk/</i>	‘very big’	(Emmi: Ford 1998, p. 140)

In this section I explore the potential noun/adjective part of speech distinction in Marri Ngarr. While it is clear that the categories of noun and adjective (as distinguished semantically) display syntactic and functional differences, ultimately the characteristics of both types of (semantic) words are more similar than different, and I find no convincing morphological evidence to warrant proposing a part of speech distinction.

Cross-linguistically, various types of concrete entities are typically expressed as nouns, including categories such as ‘human’, (body) ‘part’, ‘flora/ fauna’, ‘celestial’, ‘environment’ and ‘artefact’ (Dixon 2004, pp. 3–4). Properties of entities on the other hand, which can be grouped into four core semantic types of ‘age’, ‘dimension’, ‘value’ and ‘colour’, are typically associated with the adjective part of speech (Dixon 2004, pp. 3–4). In this section I use this semantic distinction between ‘entity-denoting nominals’ and ‘modification nominals/modifiers’ as a basis for comparing these two semantic types which are morphosyntactically noun and adjective in many languages. Note that I also include quantifiers in the ‘modifier’ category as I consider them to fall into the category of elements which describe properties of an entity. Therefore, I consider the modifier category to be comprised of qualificational modifiers, i.e. adjectives, and quantificational modifiers, i.e. quantifiers. Examples of elements functioning as modification nominals

in Marri Ngarr are given below for dimension (288), value (289) and colour (290) and quantification (291).

(288) η a muli ji wacen jipezi ađiŋiṭa na ϕ^w a
 η a muli= ji wacen jipezi adi-ŋic=a na β wa
 3SG.F.PRO FEM= DEM.3 dog little 3SG.CAUSE.R.PFV-hide=PST LOC leg
 ŋitiwunni
 ŋitiwunni
 underneath

‘She was hiding the small dog underneath her leg.’ (PT: IG3-034-B)

(289) wacen kati
 wacen yaṭi
 dog good

‘Good dog’ (HK:197207-MW-M02004362B)

(290) wacen ṭipkam
 wacen ṭipkam
 dog black

‘Black dog’ (ET: 20150627-JM-ET-02)

(291) wacen ṅalpu ji
 wacen ṅalpu ji
 dog many DEM.3
 kumunwirnepekaŋgikujaŋ
 kumun-wir-pe~pe-kaŋki=kujaŋ
 3SG.PIERCE.R.IPFV-3PL.OBL-REDUP~smell-RECIP-3PL.STAND.R.IPFV

‘All those dogs can smell each other.’ (PT: IG3-039-A)

The examples above in (288) - (291) demonstrate that the modifier consistently follows the entity-denoting nominal in the NP. Further examples of this word order are provided in (292) - (294).

(292) naŋji ṭawur ṅilikata ṭawur malapur
 naŋci ṭawur ṅili-kat=a ṭawur malapur
 THING tree 1NSG.BUMP.R.PFV-cut=PST tree tall

‘We’d cut the tree, a tall one.’ (JJ: 20080521-MC-Bush-games)

(293) wadiwan wijjen
 wadiwan wijcen
 kangaroo bad

‘bad kangaroo (e.g. too small to eat)’ (HK: 197207-MW-M02004362B)

(294) jin muku cicuk ηirwidiβundibackani
 jin muku cicuk ηir-widi-pundibac=kanji
 1SG.PRO woman two 1SG.HANDS.R.IPFV-3DU.O-take=1SG.SIT.R.IPFV

‘I’ve got two wives.’ (PT: IG3-031-B)

These examples demonstrate a consistent functional Head - Modifier ordering (also described in §4.1.1) which also usually reflects the semantic characteristics of the nominals, i.e. some nominals have semantics which are more likely to lend themselves to denoting entities and, therefore, appear in the Head slot, while the semantics of others more naturally denote properties of entities and are positioned in the Modifier slot. However, this does not necessarily map to a part of speech distinction between nouns and adjectives. Below we see some examples which suggest that some nominals can appear in either Head or Modifier slot. The nominal /*ηijnci*/ generally functions as a quantificational modifier meaning ‘one’, as in (295); however example (296) shows that it can also fill the Head slot. In (296) it forms a complete NP on its own and is marked by the INSTRUMENTAL case marker which here functions as an ERGATIVE marker (§4.6) indicating that it is the transitive subject. As discussed in §4.1.1, nominals in the Modifier slot cannot form an NP on their own, requiring either the Head or Classifier slot to also be filled. The absence of another nominal in the NP in (296) shows that /*ηijnci*/ must fill the Head slot. The example in (297) shows that as well as filling Head and Modifier slots, /*ηijnci*/ may also fill the Determiner slot. In this example the numeral /*cicuk*/ ‘two’ occurs in the Modifier slot (agreeing with the number feature of the subject) so /*ηijnci*/ clearly does not have a numeral modifier function here, suggesting that a Determiner function is possible. See §4.1.1 and §4.3.2.1 for further discussion.

(295) miji wuji ηinji wanibeca
 miji wuji ηinci wani-bec=a
 PLANT PLACE one 3SG.GO.R.PFV-sit=PST

‘The fruit stayed there for one night.’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

(296) ηinji ηarin ka pindini arijimbura
 ηinci =ηarin =ka pindini ari-cimburi=a
 one =INSTR =TOP nest 3SG.HANDS.R.PFV-make=PST

‘He made a nest.’ (JJ: 20080811-MC-WaterRat)

(297) **ma** **ɟicuk** **ŋiŋɟi** **kawɪŋɟibut**
 ma= **cicuk** **ŋiŋci** **kawu-ŋ-ɟibut**
 MASC= **two** **one** 3.SIT.R-DU.S.INTR-swim

‘There are two blokes swimming (in the creek).’

(HK: 1972-MW-M02004364A)

Other examples show the nominal /zadi/ ‘back’ can vary in function between Head and Modifier. In (298) /zadi/ fills the Head slot of the NP,⁵⁷ while in (299) it fills the Modifier slot, modifying the Head nominal /karila/ ‘hill’.

(298) **ŋiŋgurpa** **ɬadi**
 ŋiŋ-kurp=a **zadi**
 1SG.SWING.R.PFV-hit=PST **back**

‘I hit him on the back.’

(HK: 1972-MW-M02004364B)

(299) **wariβiricni** **niŋ** **na** **garila** **ɬadi**
 wari-βiric=ni **niŋ** **na** **karila** **zadi**
 2SG.GO.IRR-climb=FUT 2SG.PRO LOC **hill** **back**

‘You’re going to climb up the top of that hill.’

(JoN: IG3-025-B)

The distinction between entity-denoting nominal and modifier is not so straightforward for nominals of age and also suggests that there is no grammatical distinction between nouns and adjectives in Marri Ngarr. While in (288) above, repeated as (300), /jipezi/ clearly functions as a modifier, appearing in the Modifier slot following the Head, in (301) its functional status between an entity-denoting nominal and a modifier is debateable. It co-occurs with the CHILD classifier and potentially fills either the Head or Modifier slot.

(300) **ŋa** **muli** **ji** **wacen** **jipezi** **aɟiŋiɬa** **na** **ϕ^{wa}**
 ŋa **muli=** **ji** **wacen** **jipezi** **adi-ŋic=a** **na** **βwa**
 3SG.F.PRO FEM= DEM.3 **dog** **little** 3SG.CAUSE.R.PFV-hide=PST LOC **leg**
ŋitiwunni
ŋitiwunni
underneath

‘She was hiding the small dog underneath her leg.’

(PT: IG3-034-B)

57. This external position is unusual for a body part nominal: body part nominals are usually incorporated into the verb (§8.1.3); however restrictions on incorporation with certain lexical stems, such as /-kurp-/ result in the body part nominal being expressed externally in (298).

- (301) η a kurpitni ja ipezi
 η a kur-pit=ni je= jipezi
 3SG.F.PRO 3SG.HANDS.IRR-wash=FUT CHILD= little(.one?)
 ‘She’s going to wash the baby.’ (PT:IG3-034-B)

Nominals of age often exhibit this ambiguity between entity-denoting nominal or modifier function. Consider the example in (302) below in which the nominal /*βindiβindi*/ could describe an entity, i.e. ‘old man’, or a property of an entity, i.e. ‘old’.⁵⁸ Whilst nominals of age in the corpus do not definitively display variation in which functional slot they can fill, they illustrate the types of semantics which may allow for variation in terms of NP function.

- (302) maβindiβindi wiŋjen paligurpa jeŋi malawur η arin
 ma=βindiβindi wiŋcen pali-kurp=a jeŋi malawur = η arin
 MASC=old(.man?) bad 3SG.BUMP.R.PFV-hit=PST WEAP axe =INSTR
 η a
 η a
 3SG.F.PRO
 ‘The bad old man hit her with an axe.’ (HK: 1972-MW-M02004364A)

Some nominals which usually occur in Modifier position also occasionally function as adverbs. This function is observed for both quantificational modifiers (303) (see also §3.1.7) and modifiers of dimension (304) - (305). Modifiers of dimension can also act as quantificational modifiers in the NP (306). Entity-denoting nominals on the other hand are never observed functioning as adverbs.

- (303) η iriŋintitipkaŋija cicuk
 η iri- η in-zip~zip=kaŋi=ja cicuk
 1SG.HANDS.R.IPFV-1SG.OBL-REDUP~pinch=1SG.SIT.R.IPFV=PST two
 ‘I pinched myself two times.’ (PT: IG3-035-B)

- (304) niwir ma ji cendi kila kumudirikaŋi
 niwir ma= ji cendi kila kumun-diri-kaŋki
 3PL.PRO MASC= DEM.3 SPEAR big 3NSG.PIERCE.R.IPFV-fight-RECIP
 ‘That mob are having a big fight with spears.’ (PT: IG3-033-B)

58. The fact that (302) would be the only example in the corpus of an NP which contains a sequence of two qualificational modifiers suggests that /*βindiβindi*/ denotes an entity here.

(305) **mari ipperi ηinmurin**
 mari **jipezi** ηin-murij
 LANG **little** 1SG.GO.R.IPFV-talk

‘I only speak a little bit.’

(ET: 20150714-JM-ET)

(306) **alejir kila**
 a=lejir **kila**
 ANIM=fat **big**

‘Too much fat (on meat).’

(PT: IG3-031-A)

While this is a functional difference between modifiers and entity-denoting nominals, again this appears to be due to the semantics of certain nominals, which make variable function possible: some quantificational nominals and nominals of dimension, like those exemplified above, have semantics which are flexible so that in the right context their function can vary.

So far the syntactic and functional distinctions observed between entity-denoting nominals and modifiers do not necessarily provide evidence of a part of speech distinction between nouns and adjectives: the word order data shows a strict ordering between Head and Modifier, but the examples provided above show that some nominals can appear in either slot, demonstrating that this is a purely functional ordering, rather than a part of speech ordering. The data on nominals which function as adverbs shows that this function is not an option for all modifiers: the inherent semantic properties of only a small number of modifiers lend themselves to the ability to also modify verbs. Thus this functional distinction does not seem like strong enough evidence to argue for a part of speech distinction between nouns and adjectives.

Ideally, we would like to see some morphological distinctions between nominals which denote entities versus those that denote properties of entities, to clearly see evidence of a part of speech distinction. Nominal morphology is quite limited in Marri Ngarr. Only two types of bound markers attach to nominals: bound nominal classifiers and case enclitics.⁵⁹ Considering the characteristics of bound nominal classifiers, they freely attach to all nominals irrespective of whether they are entity-denoting (307) or modificational (308), showing no evidence of distinguishing the two types of nominal.

(307) **aηaηmiη ηawaɖara** **cuja**
 a=ηaηmiη ηa-wudar=a **cuja**
 ANIM=fish 1SG.MOUTH.R.PFV-eat=PST **yesterday**

‘I ate some fish yesterday.’

(RK: 197207-MW-M02004363A)

59. There is also an interrogative suffix (§4.4.2) but this usually only attaches to nominal classifiers.

- (308) **kiŋβap** **kawijɲimburi** **aŋatin** **ŋali**
 kiŋ-βap kawu-ŋ-cimburi a=ŋatin ŋali
 3SG.SWING.R.IPFV-transfer 3.SIT.R-DU.S.INTR-eat ANIM=raw REP

‘He passes it and they eat the raw meat together.’

(JN: 20090226-MC-WaterRat)

Case-marking is uncommon in the corpus. When it occurs it generally attaches to entity-denoting nominals (309). As for modifiers, the situation is less clear. Case markers are only observed attaching to nominals of age, as in (310), which as discussed above, are ambiguous between functioning as entity-denoting nominals or modifiers. While there are no clear examples of attachment to modifiers, there is not enough evidence to draw conclusions from only a small amount of case-marking data. In any case, Dixon (2004) argues that case-marking is not useful for distinguishing nouns from adjectives as case usually attaches to a syntactic position rather than being concerned with part of speech (which is what we find in Marri Ngarr, where case markers attach to the right edge of the NP (§4.6)).

- (309) **naŋ** **ji** **ceŋɲi** **kulɲurkuzi** **malawur**
 naŋ ji ceŋci kul-cur=kuzi **malawur**
 3SG.M.PRO DEM.3 FIRE 3SG.BUMP.R.IPFV-cut.PL=3SG.SIT.R.IPFV axe
ŋarin
=ŋarin
=INSTR

‘He’s chopping up the wood with an axe.’

(PT: IG3-018-A)

- (310) **je** **jipezi** **ŋarin** **ariɖapa** **maβindiβindi**
 je= **jipezi** **=ŋarin** **ari-ɖap=a** ma=βindiβindi
 CHILD= little =INSTR 3SG.HANDS.R.PFV-touch=PST MASC=old.man

‘The baby touched the old man.’

(HK: 1972-MW-M02004364A)

Therefore, while I find syntactic and functional distinctions between entity-denoting nominals and modifiers, these distinctions can be explained by the strict functional word order of the NP and by the semantics of individual nominals. I find no evidence of morphological differences between the two types of nominal: bound nominal classifiers freely attach to both entity-denoting nominals and modifiers and despite a lack of data showing case markers attaching to modifiers, there is also no negative evidence to show that modificational nominals can’t take case-marking. Based on this lack of distinguishing nominal morphology I argue that there is not strong enough evidence to propose two separate parts of speech for nouns and adjectives. Instead, I consider those elements that denote entities and those that denote properties of entities (and those that do both) as falling under the one NOMINAL part of speech.

4.3.2 Quantification

Quantifiers, which form part of the nominal part of speech, are a relatively minor part of the grammar of Marri Ngarr, with just a handful of numerals and one existential quantifier used in the corpus. Two qualificational modifiers also perform a minor role as quantifiers. Generally, quantifiers act as NP modifiers. In this function they fill the Modifier slot of the NP template, express properties of an entity and cannot function alone as an NP. Aside from their NP modificational function, some quantifiers can also act as adverbs (briefly described in §3.1.7) and there is some evidence that quantifiers can function as determiners and occasionally head the NP (§4.1.1 and §4.3.1).

4.3.2.1 Numerals

Australian languages generally have very small numeral systems (Dixon 1980, pp. 107–8). Bovern and Zentz (2012, pp. 136–7) find that around 75% of a sample of 189 Australian languages have numerals up to ‘three’ or ‘four’. When numeral terms higher than this are reported in a language, they are usually rendered through the combination of the smaller, non-compositional numerals (Bovern and Zentz 2012, pp. 137–140).

As can be seen from the forms below, Marri Ngarr has non-compositional terms for the numerals ‘one’ to ‘three’.⁶⁰ ‘Four’ is rendered through the repetition of the term for ‘two’, /*cicuk*/, while ‘five’ is a compound formed from /*pundi*/ ‘hand’ and /*ɲinci*/ ‘one’.

/ <i>ɲinci</i> /	‘one’
/ <i>cicuk</i> /	‘two’
/ <i>annimbir</i> /	‘three’
/ <i>cicukcicuk</i> /	‘four’
/ <i>pundi ɲinci</i> /	‘five’

These strategies for the expression of ‘four’ and ‘five’ are both common in Australian language numeral systems (Bovern and Zentz 2012, p. 138). In terms of usage, these numerals are generally used as modifiers in the NP to highlight the exact number of their referent. /*ɲinci*/ and /*cicuk*/ are used relatively regularly in this function but the other numerals are rarely found in the corpus, with /*cicukcicuk*/ never occurring in natural speech (i.e. it is only elicited as a wordlist item). Note, however, that (approximate) argument number is usually expressed in other ways in the clause: it is obligatorily marked on the verb through pronominal agreement marking (§5.6), with additional number marking options available on the verb for subjects (§6.1) and as a specialised number marker on the verb to mark AUGMENTED number of arguments (§6.2). As well as these strategies on the verb, the option of expressing argument number in the NP via free personal pronouns is also available (§4.4.1). The use of numerals as an optional strategy to highlight the exact number of a referent is illustrated in (311) - (314) below.

60. /*annimbir*/ ‘three’ is considered non-compositional in that it is not synchronically composed of a combination of smaller numerals; however the sequence /*mbir*/ is identical in form to the 3PL OBJECT marker so diachronically /*annimbir*/ may have been composed of smaller units.

- (311) awu aŋiŋɟi ɲiriŋdipa
 awu a=ɲiŋci ɲiriŋ-zip=a
 ANIM ANIM=**one** 1NSG.SWING.R.PFV-spear=PST
 ‘Us mob speared one animal.’ (PT: IG3-023-B)
- (312) mi ciβaki cicuk amuŋinduc
 mi= ciβaki **cicuk** am-ŋin-zuc
 PLANT= tobacco **two** 2SG.PIERCE.IRR-1SG.OBL-pick.up.PL
 ‘Pick up two pouches of tobacco for me.’ (PT: IG3-022-A)
- (313) ner manimbir gu wacki ɲutirɬaŋjiljilni
 ner ma=**annimbir** ku wacki ɲudi-dir-ɬaŋ-jil~jil=ni
 2PL.PRO MASC=**three** DEM.2 later 1SG.CAUSE.IRR-2PL.O-ear-REDUP~tell.truth=FUT
 ‘I’m gonna teach you three fellas.’ (JoN: IG3-026-B)
- (314) niwir ma ji puliŋgurpa ma pundi
 niwir ma= ji pul-ŋ-kurp=a ma= **pundi**
 3PL.PRO MASC= DEM.3 3NSG.BUMP.R.PFV-1SG.O-hit=PST MASC= **hand**
 ɲiŋɟi
 ɲiŋci
one
 ‘Those five fellas hit me.’ (PT: IG3-015-B)

Numerals always modify their referent directly, without the need for a numeral classifier. However, one example shows that measure words can be employed in conjunction with a numeral to quantify a referent. The example below shows the nominal for ‘head’, /*punidit*/, being used as a measure word with the meaning ‘piece (of)’.

- (315) jin ɲuluŋkata ajiŋiki punidit ɲiŋɟi muli
 jin ɲuli-ŋ-kat=a a=jilirki **punidit ɲiŋci** muli=
 1SG.PRO 1SG.BUMP.R.PFV-3SG.F.OBL-cut=PST ANIM=meat **head one** FEM=
 ji
 ji
 DEM.3
 ‘I cut off one piece of meat for that woman.’ (PT: IG3-036-B)

Aside from its function as a cardinal numeral, /*ɲiŋci*/ has a range of other roles. It can be used to express the meaning ‘other’ (316).

(316) wacen ji kumuɲa wacen ɲiɲɟi ji
wacen ji kumun-ɲa wacen ɲiɲci ji
dog DEM.3 3SG.PIERCE.R.IPFV-smell dog one DEM.3

‘That dog can smell that other dog.’ (PT: IG3-039-A)

It is also found, albeit rarely, in various compounds: (i) /**ɲiɲciɲali**/ ‘different’, where it combines with an element which is possibly the particle /**ɲali**/ (317) - (318) (the particle /**ɲali**/ on its own expresses some kind of repetition (§9.5.8)); (ii) /**ɲiɲciɲar**/ ‘same’, where it combines with the demonstrative adverb /**ɲar**/ (319) - (320); and (iii) /**ɲiɲciɲarin**/ ‘sometimes’ where it possibly combines with the instrumental case marker /**ɲarin**/ (321).

(317) naɲɟi ambu ɲana jin. ji ga naɲɟi ɲiɲɟiɲali
naɲci ambu ɲana jin ji =ka naɲci ɲiɲciɲali
THING NEG LIKE 1SG.PRO DEM.3 =TOP THING **different**

‘That (car) is not like mine. That one’s different.’ (JoN)

(318) niwiɲ wacen cicuk ari pamuɲɟiɲaja
niwiɲ wacen cicuk ari pam-ɲki-ɲa=ja
3DU.PRO dog two DEM.1 3NSG.PIERCE.R.PFV-DU.S-smell=PST
ɲiɲɟiɲali
ɲiɲciɲali
different

‘Those two dogs smelt something different.’ (PT: iG3-035-B)

(319) kaɲɟi ɲumbudingibaɬa wiji ɲiɲɟiɲar
kaɲki ɲumbudi-ɲki-βac=a wuji ɲiɲciɲar
1INCL.DU.PRO 1INCL.DU.CAUSE.R.PFV-1INCL.DU.OBL-fall=PST PLACE **same**

‘You and me were born in the same place.’ (PT: IG3-021-A)

(320) niwir ma ji kuli ɲiɲɟiɲar
niwir ma= ji kuli ɲiɲciɲar
3PL.PRO MASC= DEM.3 3PL.SIT.R **same**

‘They all keep company together.’ (IG3-034-A: 32)

(321) wudi ɲulɡudak ɲiɲɲiɲarin
 wudi ɲul-ɣudak ɲiɲciɲarin
 WATER 1SG.BUMP.R.PFV-drink SOMETIMES

‘I drink beer sometimes.’

(PT: IG3-021-A)

/ɲiɲci/ also potentially functions as a determiner (§4.1.1). In (322) the personal pronoun matches in number features with OBJECT pronominal agreement marker of the first verb, which means that */ɲiɲci/* in the same clause (which as a numeral expresses a different number value) must not be marking object number here. Similarly, in (323) the quantifier */cicuk/* agrees with the number features marked on the verb and provides quantificational properties of the entity, suggesting again that */ɲiɲci/* has a different function. In several other examples in the corpus such as (324), */ɲiɲci/* is used when it does not appear to express the numeral ‘one’ (at least according to the translation). Cross-linguistically, the numeral ‘one’ often functions as an indefinite determiner (Dryer 2007, pp. 155–156), or an indefinite determiner is derived from the numeral for ‘one’ (Lyons 1999, pp. 95–99). While its non-numeral-denoting function in Marri Ngarr is unclear, a determiner function is plausible.

(322) ɲidinwidimelkaɲi niwɲɲi ɲiɲɲi awu
 [ɲidin-widi-mel=kaɲi niwɲɲi ɲiɲci] awu
 1SG.CAUSE.R.IPFV-3DU.O-watch=1SG.SIT.R.IPFV 3DU.PRO one ANIM
 kuringidapkuɲɲi aɲaɲmiɲ
 kuri-ɲki-ɲap=kun-ɲ a=ɲaɲmiɲ
 3NSG.HANDS.R.IPFV-DU.S-spear.PL=3NSG.GO.R.IPFV-DU.S.INTR ANIM=fish

‘I’m watching two men spearing fish.’

(HK: 1972-MW-M02004365A)

(323) ma ɲicuk ɲiɲɲi kawɲɲiɲibut
 ma= cicuk ɲiɲci kawu-ɲ-ɲibut
 MASC= two one 3.SIT.R-DU.S.INTR-swim

‘There are two blokes swimming (in the creek).’

(HK: 1972-MW-M02004364A)

(324) ɬawur ɲiɲɲi wariwele
 ɬawur ɲiɲci wari-wele
 tree one 2SG.GO.IRR-hang

‘Climb that tree.’

(HK: 1972-MW-M02004364A)

(325) shows that /*ɲiɲci*/ can also function as an entity-denoting nominal which heads the NP. The instrumental case marker in this instance functions as an ergative marker (§4.6), marking /*ɲiɲci*/ as the transitive subject.⁶¹

- (325) *ɲiɲɲi ɲarinka pindipi ariɲimbura*
ɲiɲci =ɲarin =ka pindipi ari-cimburi=a
one =INSTR TOP nest 3SG.HANDS.R.PFV-make=PST
 ‘He made a nest.’ (JJ: 20080811-MC-WaterRat)

4.3.2.2 Quantifiers

The form /*ɲalpu*/ is an existential quantifier interpreted as ‘many/a lot of’.⁶²

- (326) *kwani wuri awu ɲalpu kipurkwani*
kwani =wuri awu a=ɲalpu ki-pur=kwani
3SG.GO.R =towards ANIM ANIM=many 3SG.MOUTH.R.IPFV-hold.PL=3SG.GO.R.IPFV
 ‘He’s coming with a lot of of meat.’ (PT: IG3-023-A)

There is no evidence of a mass/count distinction in the usage of /*ɲalpu*/: it co-occurs with nominals expressing both count (327) and mass (328) entities.

- (327) *jin ɲipur muku ɲalpu*
jin ɲir-pur muku ɲalpu
1SG.PRO 1SG.HANDS.R.IPFV-hold.PL woman many
 ‘I’ve got lots of wives.’ (PT: IG3-031-B)

- (328) *ambu pindi ɲiliɲinmijeri mari ɲalpu*
ambu βindi ɲili-ɲin-mijeri mari ɲalpu
NEG WHERE 1SG.BUMP.R.IPFV-1SG.OBL-think LANG many
 ‘I can’t think, too much noise.’ (PT: IG3-024-A2)

61. An analysis where /*ɲiɲci*/ functions as Head is also a plausible explanation for (322) where /*ɲiɲci*/ potentially functions as an entity-denoting nominal translatable as ‘person’ and is in apposition with the personal pronoun.

62. /*wunaɲat*/ is also used rarely in the corpus with the interpretation ‘many’ and is possibly a borrowing from Murrinhpatha.

- (i) *pulimbirmataka mawunaɲar*
puli-mbir-matak=a ma=wunaɲar
3NSG.BUMP.R.PFV-3PL.O-meet=PST MASC=many?
 ‘They met a lot of people.’ (PT: IG3-024-B)

As well as taking nominal morphology in the form of bound nominal classifiers, /*ŋalpu*/ can also take the APPREHENSIVE modal enclitic /=*andi*/, which most commonly attaches to verbs (329).

- (329) *ŋalpu* *giniwuɖarandi*
a=*ŋalpu*=*andi* *kini-wudar*=*andi*
ANIM=many=APPR 2SG.MOUTH.R.IPFV-eat=APPR
‘You might eat a lot of it.’ (JN: IG3-014-A)

Two modifiers of dimension, /*kila*/ and /*jipezi*/, are also observed in the corpus functioning as quantifiers, both in the NP and as quantificational adverbs (see §3.1.7 for their adverbial function). The semantics of these modifiers appear to lend themselves to these quantificational senses, where instead of their regular adjectival function of describing the size of a referent ((330) and (331)), they focus on its quantity ((332) and (333)).

- (330) *ɥawur gila*
ɥawur kila
tree big
‘Big tree’ (JN: IG3-020-A)

- (331) *ŋa muli ji wacen jipezi aɖiŋiɥa* *na ɕ^wa*
ŋa muli= ji [wacen jipezi] adi-ŋic=a *na βwa*
3SG.F.PRO FEM= DEM.3 dog little 3SG.CAUSE.R.PFV-hide=PST LOC leg
ŋitiwunni
ŋitiwunni
underneath
‘She was hiding the small dog underneath her leg.’ PT: IG3-034-B

- (332) *alejir kila*
a=*lejir kila*
ANIM=fat big
‘(This meat’s got) too much fat.’ (PT: IG3-031-A)

- (333) *naŋ ma ji wudi jipezi palikudaka*
naŋ ma= ji wudi jipezi pali-yudak=a
3SG.M.PRO MASC= DEM.3 WATER little 3SG.BUMP.R.PFV-drink=PST
‘He drank a little bit of beer.’ (PT: IG3-036-A)

4.4 Pronouns

4.4.1 Personal pronouns

Personal pronouns encode 1, 2 and 3 person with an INCL/EXCL distinction in the first person, as well as encoding SINGULAR, DUAL, PAUCAL (with the addition of the AUGMENTED marker */=nim/* - see below) and PLURAL number. These person and number distinctions reflect the same distinctions and some of the same formal similarities found in the pronominal agreement system on the verb (§5.6.1). The forms of the personal pronouns are given in table 4.5. Unlike the EXCL forms, the 1INCL pronouns display a minimal-augmented distinction, which is discussed in §6.3.

	SG	DUAL	PAUCAL	PLURAL
1INCL	-	<i>kaŋki</i>	<i>kaŋki=nim</i>	
1	<i>jin</i>	<i>kadi</i>	<i>kadi=nim</i>	<i>cer</i>
2	<i>nij</i>	<i>nadi</i>	<i>nadi=nim</i>	<i>ner</i>
3 MASC	<i>naŋ</i>	<i>niwip</i>	<i>niwip=nim</i>	<i>niwir</i>
3 FEM	<i>ŋa</i>			

Table 4.5: Personal pronoun number distinctions

A gender distinction is present for personal pronouns only in the 3SG, as illustrated in (334).

- (334) a. *naŋ* *ji* *naβarapa*
naŋ *ji* *na-βarup=a*
3SG.M.PRO **DEM.3** **3SG.SWING.R.PFV-run.away=PST**
 ‘He ran away.’ (JN: IG3-012-A: 34)
- b. *ŋa* *ji* *jaŋaβarapŋaja*
ŋa *ji* *je-ŋin-βarup-ŋa=ja*
3SG.F.PRO **DEM.3** **3SG.MOUTH.R.PFV-1SG.OBL-run.away-MAL=PST**
 ‘She ran away from me.’ (JN: IG3-013-B: 69)

PAUCAL number can be encoded on personal pronouns via the attachment of the AUGMENTED number enclitic */=nim/* to DUAL pronoun forms. I define paucal number value following Corbett (2000, p. 22) as similar to English ‘a few’, and having no clear upper bound. In Marri Ngarr, its lower bound is three. Note that there is some overlap between PAUCAL and PLURAL-marking in Marri Ngarr in that PLURAL can be used to mark any value of three or more; therefore including the same semantic number values as those marked by PAUCAL. In (335b), */=nim/* attaches to the DUAL pronoun (and verb) for a paucal interpretation, which is then specified as ‘three’ via the numeral */annimbir/*. In contrast, a plural interpretation is formed with a PLURAL pronoun (335c) and this form

can occur in combination with the quantifier /*ŋalpu*/ ‘many’. Both (335b) and (335c) contrast with the dual interpretation in (335a).

- (335) a. *nađi ma jicuk ku namaŋgiparat*
nadi ma= cicuk ku nam-ŋki-βarat
 2DU.PRO MASC= two DEM.2 2NSG.PIERCE.IRR-DU.S-grab
 ‘You two grab him.’ (PT: IG3-018-A)
- b. *nađinim ma annimbir ku namaŋgiparatnim*
nadi=nim ma= annimbir ku nam-ŋki-βarat=nim
 2DU.PRO=AUG MASC= three DEM.2 2NSG.PIERCE.IRR-DU.S-grab=AUG
 ‘You three fellas grab him.’ (PT: IG3-018-A)
- c. *ner ma gwu ŋalpu gu nambarat*
ner ma= ku=wu ŋalpu ku nam-βarat
 2PL.PRO MASC= DEM=WU many DEM.2 2NSG.PIERCE.IRR-grab
 ‘You (PLURAL), you grab him.’ (PT: IG3-018-A)

Example (336) shows that semantically paucal number values are not necessarily marked by PAUCAL: in (336) a PLURAL personal pronoun and OBJECT marker are used to express the same cardinality as the referent in (335b). There is no PAUCAL/PLURAL distinction in the 1INCL category: the AUGMENTED number enclitic attaches to the 1INCL.DU form to express either paucal or plural referent number (as discussed in section §6.2).

- (336) *ner manimbir gu wacki*
ner ma=annimbir ku wacki
 2PL.PRO MASC=three DEM.2 later
ŋutirṭaŋjiljilni
ṇudi-dir-ṭaŋ-jil~jil=ni
 1SG.CAUSE.IRR-2PL.O-ear-REDUP~tell.truth=FUT
 ‘I’m gonna teach you three fellas.’ (JoN: IG3-026-B: 50)

Personal pronouns are not distinguished for grammatical function, with the examples below showing the same form being used for SUBJECT (337a), OBJECT (337b) and OBLIQUE (337c) arguments. Note that the pronominal NP is also in the same clausal position regardless of grammatical function - see §9.1 for discussion of flexible word order.

- (337) a. *niwip ji puliniŋmudija*
niwip ji puli-ni-ŋ-mudi=ja
 3DU.PRO DEM.3 3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1SG.O-see=PST
 ‘Those two saw me.’ (PT: IG3-034-A)

b. niwɨjɨn ma ji ɲuliwudimudija
 niwɨjɨn ma= ji ɲuli-widi-mudi=ja
 3DU.PRO MASC= DEM.3 1SG.BUMP.R.PFV-3DU.O-see=PST
 ‘I saw those two fellas.’ (JoN: IG3-027-A)

c. niwɨjɨn ji ɲuliwɨjɨjɨtɨni
 niwɨjɨn ji ɲul-wɨjɨ-cit=ni
 3DU.PRO DEM.3 1SG.BUMP.IRR-3DU.OBL-show=FUT
 ‘I’ll show those two fellas.’ (JN: IG3-013-B)

When personal pronouns are used as terms of address, third, rather than second person forms are used (338). This is also observed in Ngan’gitjemerri and Murrinhpatha (Reid 1990, p. 387; Walsh 1976, p. 160).

(338) niwɨjɨn arcipe nulungumudi
 niwɨjɨn ar cipe nuli-ɲki-mudi
 3DU.PRO DEM.1 WHAT 2NSG.BUMP.IRR-DU.S-see
 ‘Hey you two fellas, look at this.’ (JN: IG3-006-A: 98)

Personal pronouns can also appear in possession constructions where they function as possessors and usually immediately follow a possessed nominal (339) or nominal classifier (340) (with no other morphology to signal possession).

(339) aɲɲerpe kimin ɲinimbe puma naɲ wu
 aɲ-cerpe kimin ɲinimbe puma naɲ =wu
 2SG.SWING.IRR-ask DEON WHO name 3SG.M.PRO =WU
 ‘You ask him what his name is.’ (HK: 1972-MW-M02004364B)

(340) anaɲi ɲiɲɲiɲguwata
 a=nadi ɲiɲci-ɲki-wat=a
 ANIM=2DU.PRO 2NSG.HANG.R.PFV-DU.S-hang=PST
 ‘You two fellas hung your beef up.’ (JN: IG3-006-A)

While usually the possessive pronoun requires this possessed element, a handful of examples show that a possessive pronoun can function alone. Compare (341a) which features a possessed nominal classifier, with (341b) where the personal pronoun forms the possession construction on its own in the first clause and is interpreted as ‘mine’.

- (341) a. **muduga ji ɲana naɲɲi jin**
muduka ji ɲana naɲci jin
car DEM.3 LIKE THING 1SG.PRO
- ‘That motorcar’s like mine.’ (PT: IG3-035-B)
- b. **naɲɲi ambu ɲana jin ji ga naɲɲi ɲiɲɲiɲali**
[naɲci ambu ɲana jin] [ji =ka naɲci ɲiɲciɲali]
THING NEG LIKE 1SG.PRO DEM.3 =TOP THING different
- ‘That (car) is not like mine. That one’s different.’ (PT: IG3-035-B)

Personal pronouns also participate in a specific possession construction which has a reflexive interpretation. The pronoun functions as the possessor while the body part nominal for ‘hand’ /*pundi*/ is the possessum, with a literal translation of ‘X’s hand’. The features of the pronoun must agree with those of the reflexive participant as illustrated in (342). Note that in this section each element of this construction is glossed separately, while in the rest of the thesis the construction is glossed as ‘REFL’.

- (342) **naɲ ma ji karɲicetkuzi**
naɲ ma= ji kar-ni-cet=kuzi
3SG.M.PRO MASC DEM.3 3SG.HANDS.R.IPFV-3SG.M.OBL-scratch=3SG.SIT.R.IPFV
- pundi naɲ**
pundi naɲ
hand 3SG.M.PRO
- ‘He scratched himself.’ (PT: IG3-037-A)

In Murrinhpatha a lexically equivalent construction means ‘(by) oneself’ (Nordlinger 2019, p. 427), whereas in Marri Ngarr this construction generally only co-occurs with reflexive verbs to (redundantly) also mark, or perhaps emphasise, reflexivity. This interpretation might be closer to that described by Ford (1990, p. 147) for Batjamalh, where the equivalent construction is thought to disambiguate constructions with non-singular arguments which could be interpreted as either reflexive or reciprocal. There is, however, one example of this type of construction in Marri Ngarr in a clause with a non-reflexive verb, where it appears to convey the ‘by oneself’ interpretation found in Murrinhpatha (343).

- (343) **kuzi pundi naɲ**
kuzi pundi naɲ
3SG.SIT.R hand 3SG.M.PRO
- ‘He’s sitting by himself.’ (JoN: IG3-034-A)

In possession constructions, the personal pronoun in possessive function is positioned at the right edge of the NP (see (339) to (343) above). In contrast, in its standard pronominal

function the personal pronoun consistently occurs at the left edge of a nominal expression (344). This left-edge position is often followed by NP elements which themselves seem to form a complete nominal expression (e.g. /*muli cicuk ji*/ in (344)). These types of constructions are analysed as two co-referential, appositional NPs, even though the consistent left-edge position of the personal pronoun could suggest that it is positioned NP-initially in a complex NP. The ordering restriction of the appositional NPs is simply considered to be conventionalised. See §4.1.1 for details on NP template slots and reasons for proposing that pronouns form separate NPs.

- (344) *niwijn muli cicuk ji mazi*
 [niwijn] [muli= cicuk ji] mazi
 3DU.PRO FEM= two DEM.3 belly
 kumuniŋatkawin
 kumun-ni-ŋ-at=kawu-ŋ
 3NSG.PIERCE.R.IPFV-(U)AUG.S>MIN.O-1SG.O-pick.up=3.SIT.R.IPFV-DU.S.INTR
 ‘Those two women like me.’ (PT: IG3-022-A)

The co-occurrence of personal pronouns (which always refer to animate, usually adult human referents in the corpus) and other co-referential NP elements is common, but optional (345).

- (345) a. *ŋa muli ji kidinŋimetkuzija*
 ŋa muli= ji kidin-ŋ-met=kuzi=ja
 3SG.F.PRO FEM DEM.3 3SG.CAUSE.R.IPFV-1SG.O-stare=3SG.SIT.R.IPFV=PST
 ‘That woman was staring at me.’ (PT: IG3-022-B)
- b. *muli ji kidinŋimetpiŋikuzi*
 muli= ji kidin-ŋ-met-piŋi=kuzi
 FEM DEM.3 3SG.CAUSE.R.IPFV-1SG.O-stare-now=3SG.SIT.R.IPFV
 ‘That woman’s staring at me.’ (PT: IG3-016-A)

However, co-occurrence of personal pronouns and co-referential entity-denoting nominals is very rare and only found in one example with a non-human animate (346), or with nominals used as proper names (347). This may not be a restriction on the co-occurrence of these two elements in a nominal expression but rather a result of the way human referents are usually rendered in the corpus. The entity ‘man’ is only very rarely expressed by the nominal /*me*/ ‘man’; instead it is usually rendered through the combination of the MASC classifier and a demonstrative. Likewise a common way to render ‘woman’ is through the combination of the FEM classifier and a demonstrative (as in (345) above).

- (346) niwɨŋ wacən cɨcuk ari pamuŋgɨŋaja
 [niwɨŋ] [wacən cɨcuk ari] pam-ŋki-ŋa=ja
 3DU.PRO dog two DEM.1 3NSG.PIERCE.R.PFV-DU.S-smell=PST
 ŋɨŋɨŋali
 ŋɨŋcɨŋali
 different
 ‘Those two dogs smelt something (different)’ (PT: IG3-016-A)
- (347) kaniŋimburi kiniβap awu naŋ ʔandijəŋ
 kani-cimburi kini-βap awu naŋ ʔandijəŋ
 3SG.GO.R.IPFV-eat 3SG.MOUTH.R.IPFV-transfer ANIM 3SG.M.PRO water.python
 kuʔi
 kuʔi
 3SG.SIT.R
 ‘He gives Water Python some food.’ (CM: 1982-Tree-Dreaming)

4.4.2 Interrogative/indefinite pronouns

In Australian languages it is common to find a class of words that functions as both interrogative pronouns and indefinite pronouns (Dixon 2002, p. 328). Mushin (1995, p. 3) describes elements in this class as ‘epistememes’: elements which both express that the speaker has a lack of knowledge as well as categorising the type of knowledge that is lacking. This lack of knowledge is considered an important aspect of the function of epistememes, as otherwise elements such as nominal classifiers, which also perform a categorisation function, would form part of this class (Mushin 1995, p. 3). The forms of the interrogative/indefinite pronouns in Marri Ngarr are provided in table 4.6.⁶³

Interrogative/indefinite pronoun	English gloss
/cɨpe/	‘what/something*’
/βɨndi/	‘where/somewhere’
/ŋɨnimbe/	‘who/someone’
/kumunbe/	‘when/sometime’
/naŋcɨmbe/	‘what/some* kind of thing’
/awumbe/ /ambe/	‘what/some kind of animal/meat’
/mɨjimbe/ /mimbe/	‘what/some kind of edible plant’
/jerimbe/	‘what/some* kind of weapon’
/ʔawurmbe/	‘what/some* kind of tree’
/arkambe/	‘how many/some amount*’

Table 4.6: Interrogative pronouns

63. Note that for some of these pronouns, there are no examples in the corpus which have indefinite interpretations. The indefinite glosses of these forms are asterisked in table 4.6.

There are four forms used as interrogative/indefinite pronouns to express a lack of knowledge about the broad categories of ‘thing’, ‘place’, ‘person’ and ‘time’, and the addition of the dative enclitic to the ‘thing’ interrogative/indefinite expresses lack of knowledge regarding ‘reason’. A nominal suffix */-mbe/* attaches to nominal classifiers and nominals to render more specific ‘(what) kind of X’ meanings. The same or similar phonological form is also found in two interrogatives/indefinites with general semantics, */ɲinimbe/* and */kumunbe/*. These forms no doubt originate from the attachment of */-mbe/* to some stem; however I assume these forms have lexicalised as they are synchronically unanalysable and do not exhibit the same kind of ‘what kind of X’ semantics evident in most other */-mbe/* forms.⁶⁴

In many Australian languages, interrogatives/indefinites strongly prefer clause-initial position (Mushin 1995, p. 22), and Ford (2010b, p. 23) claims that in Marri Ngarr these forms always occur clause-initially in interrogative function, with other positions interpreted as indefinite. While clause-initial position is common for the interrogative interpretation of these forms in the corpus, they also regularly follow the subject NP, exhibiting a tendency to immediately precede the predicate in interrogative function. This pre-verbal position can be seen in the examples below involving interrogative interpretations of the forms expressing general categories of knowledge. The form */cipe/* expresses a lack of knowledge about some thing (348) and with the addition of the dative marker */=ni/* expresses a lack of knowledge about the reason for some event (349).

(348) nadi cipe kindiriŋgibac
 nadi cipe kindir-ŋki-bac
 2DU.PRO WHAT 2NSG.HANDS.R.IPFV-DU.S-hold

‘What have you two got?’

(JoN: IG3-018-A)

(349) cipeni kuzi wu
 cipe=ni kuzi-zi =wu
 WHAT=DAT 3SG.SIT.R-cry =WU

‘Why’s he crying?’

(RK: 1972-MW-M02004364B)

/βindi/ as an interrogative is usually interpreted as ‘where’ (350) though when it combines with SAY/DO verbs it can be translated as ‘what’ (351).

64. While the 2SG SUBJECT-marking form */ɲini-/* could be the source of the stem in */ɲinimbe/*, it is unclear why the 2SG form would be chosen over the default 3SG, though Dixon (2002, p. 332) notes that some stems in ‘who/someone’ interrogative/indefinite forms may be related to 2SG (free) pronoun forms in other Australian languages.

(350) **niŋ ga pindi ŋindidimbibaṭa**
niŋ =ka βindi ŋindidi-mbi-βac=a
 2SG.PRO =TOP **WHERE** 2SG.CAUSE.R.PFV-2SG.OBL-be.born=PST
 ‘Where were you born?’ (PT: IG3-021-A)

(351) a. **niwiŋ φindi pumunimbija**
niwiŋ βindi pumi-ni-mbi=ja
 3DU.PRO **WHERE** 3NSG.SAY/DO.R.PFV-(U)AUG.S>MIN.O-2SG.OBL=PST
 ‘What did those two say to you?’ (JN: IG3-006-A)

b. **φindi ŋinimni**
βindi ŋinim=ni
WHERE 2SG.SAY/DO.IRR=FUT
 ‘What are you going to do?’ (PT: IG3-033-A)

/ŋinimbe/ expresses lack of knowledge about the identity of some person (352) including a person’s name (353). One example shows */ŋinimbe/* co-occurring with the 3SG personal pronoun, in which case it is interpreted as ‘which person’ (354).

(352) **ŋinimbe ji kwaŋ**
ŋinimbe ji kwaŋ
WHO DEM.3 3SG.STAND.R
 ‘Who’s that standing over there?’ (PT: IG3-035-A)

(353) **ŋinimbe me puma naŋ wu**
ŋinimbe ma= puma naŋ =wu
WHO MASC= name 3SG.M.PRO =WU
 ‘What’s his name?’ (HK: 197207-MW-M02004363A)

(354) **naŋji kanbi ku ga ŋinimbe naŋ**
naŋci kanbi ku =ka ŋinimbe naŋ
THING didgeridoo DEM.2 =TOP WHO 3SG.M.PRO
kindirniyatiyandi
kindir-ni-yati=kandi
2SG.HANDS.R.IPFV-3SG.M.OBL-create=2SG.SIT.R.IPFV
 ‘Which person did you make that didgeridoo for?’ (HK: 1972-MW-M02004365A)

To express a lack of knowledge regarding temporal information the form /*kumunbe*/ is used (355).

- (355) *naŋ* *ji* *kumunbe* *ɣajɪβatni*
naŋ *ji* **kumunbe** *kaci-βat=ni*
 3SG.M.PRO DEM.3 **WHEN** 3SG.COOK.IRR-rise=FUT

‘When is he going to get up?’ (JN: IG3-009-B)

The interrogative/indefinite suffix /-*mbe*/ is found attaching to six nominal classifiers/nominals in the corpus. In its interrogative function, the nominal classifier/nominal specifies the category of knowledge which is being enquired about, usually creating a ‘what kind of X’ reading. Examples are given in (356) - (359) below.

- (356) *jerimbe* *gu* *wu*
jeri-mbe *ku* =*wu*
WEAP-WH DEM.2 =**WU**

‘What’s this weapon?’ (RK: 197207-MW-M02004363A)

- (357) *θawurmbe* *juwu*
ɬawur-mbe *ji=wu*
tree-WH DEM.3=**WU**

‘What kind of tree is that?’ (JoN: IG3-021-B)

- (358) *naŋɟimbe* *ŋindiriɬarka*
naŋci-mbe *ŋindiri-ɬerk=a*
THING-WH 2SG.HANDS.R.PFV-lose=**PST**

‘What did you lose?’ (HK: 1972-MW-M02004365A)

- (359) *arkambe* *nɪju* *wudi* *kidipurkandi*
arka-mbe *nɪj* *ji* *wudi* *kindir-pur=kandi*
amount-WH 2SG.PRO DEM.3 **WATER** 2SG.HANDS.R.IPFV-**hold.PL=2SG.SIT.R.IPFV**

‘How many beers have you got?’ (JoN: IG3-030-A)

Indefinite functions are distinguished from the interrogative function by the presence of the epistemic possibility particle /*merɪp*/ (§9.5.2) or the negator /*ambu*/ (§9.5.4). The combination with /*merɪp*/ results in an ignorative interpretation (i.e. expresses lack of information about a certain category of knowledge) while co-occurrence with /*ambu*/

renders a negative indefinite reading where, rather than expressing a lack of knowledge of a certain category, the existence of an entity of a certain knowledge category is negated. Examples of ignoratives are given in (360) - (365) while negative indefinites are illustrated in (366) - (367).⁶⁵

- (360) gawijmazɪ jipe ni merij
 kawu-ŋ-mazi cipe =ni merij
 3.SIT.R-DU.S.INTR-wait WHAT =DAT MIGHT

‘They’re waiting for something (i.e. some reason).’ (JJ: RN5-002-A)

- (361) ja ɸindi merij kwani majiwu
 ja βindi merij kwani ma=ji=wu
 hey WHERE MIGHT 3SG.GO.R MASC=DEM.3=WU

‘I don’t know where he’s going.’ (JoN: IG3-021-B)

- (362) wacki ɸuliŋmudini kumumbe merij
 wacki βul-ŋ-mudi=ni kumumbe merij
 later 3SG.BUMP.IRR-1SG.O-see=FUT WHEN MIGHT

‘He’s gonna see me later, I don’t know what time.’ (JN: IG3-012-A)

- (363) ŋaβapa ji ŋinimbe merij amata
 ŋa-βap=a ji ŋinimbe merij am-at=a
 1SG.MOUTH.R.PFV-transfer=PST DEM.3 WHO MIGHT 3SG.PIERCE.R.PFV-pick.up=PST

‘I left it there, someone grabbed it.’ (JN: IG3-007-A: 52)

- (364) awumbe merij ajuwu
 awu-mbe merij a=ji=wu
 ANIM-WH MIGHT ANIM=DEM.3=WU

‘I don’t know what kind of animal that is.’ (JoN: IG3-021: 25)

65. While there are no examples of /cipe/ co-occurring with /merij/ for an ignorative reading, it is found in an example alone where it appears to express ‘this (thing)’ (i).

- (i) niwijn jipe nulungumudi
 niwijn cipe nul-ŋki-mudi
 3DU.PRO WHAT 2NSG.BUMP.IRR-DU.S-see

‘Hey you two, look at this.’ (JN: IG3-006-A)

(365) mijumbe merip mijuwu
 miji-mbe merip mi=ji=wu
 PLANT-WH MIGHT PLANT=DEM.3=WU

‘I don’t know what kind of food it is.’ (JoN: IG3-021-B)

(366) mi wijɲen ambu cipe ɲilimudi
 mi wijncen ambu cipe ɲili-mudi
 eye bad NEG WHAT 1SG.BUMP.R.IPFV-see

‘My eyes are bad, I can’t see anything.’ (PT: IG3-016-A: 44)

(367) ambu ɸindiza ɲin wuji ɲiɲji
 ambu ɸindi=zɛ ɲin wuji ɲiɲci
 NEG WHERE=AWAY 1SG.GO.R PLACE one

‘I’m not going anywhere.’ (PT: IG3-021-A)

4.5 Demonstratives

Five demonstratives, /ar(i)/, /ku/, /ji/, /kan/ and /(a)ɲar/, are found in the Marri Ngarr corpus. The discussion in this section focusses on /ar(i)/, /ku/ and /ji/, which exhibit a three-way contrast comprising a person-oriented deictic system. Following the discussion of this system, I provide some brief comments on /kan/ and /(a)ɲar/.

/ar(i)/, /ku/ and /ji/ can function as modifiers, pronouns (usually only when in apposition with an NP filled by a pronoun (§4.1.1)) or adverbs §3.1.7. Syntactic characteristics of the NP suggest that some demonstratives may also have a determining function (§4.1.1 and §4.3.1). The example set below shows /ku/ in modifier (368a), pronoun (368b) and adverbial (368c) functions.

(368) a. aθanir ku ka ɲinijapir
 a=ɬanir ku =ka ɲinija-pir
 ANIM=frilled-neck.lizard DEM.2 =TOP 2SG.STAND.CMPLX.IRR-throw
 zamin
 =zamin
 =AWAY

‘Throw that lizard away.’ (HK: 1972-MW-M02004365A)

b. naɟi gu ambu ɲiɲjinguwata
 [naɟi] [ku] ambu ɲiɲci-ɲki-wat=a
 2DU.PRO DEM.2 NEG 2NSG.HANG.R.PFV-DU.S-hang=PST

‘You two didn’t hang it up’ (JN: IG3-011-A)

- c. niŋ ga cipe ni kinijaŋ ku wu
 niŋ =ka cipe =ni kinijaŋ ku =wu
 2SG.PRO =TOP WHAT =DAT 2SG.STAND.R DEM.2 =WU

‘What are you standing up there for?’ (JoN: IG3-019-B)

Cross-linguistically, one of the major functions of demonstratives is to provide place/spatial deictic information regarding the distance of a referent from the deictic centre (which is often the speaker’s location) (Diessel 1999, pp. 2, 36). From a sample of 85 languages, Diessel (1999, pp. 36–8) finds that all languages have at least a two-way contrast between a proximal demonstrative which locates an entity close to the deictic centre and a distal demonstrative which locates an entity a fair distance from the deictic centre. In Marri Ngarr, I find a deictic system which has a three-way contrast. This system is person-oriented as opposed to distance-oriented: while distance-oriented deictic systems only have the deictic centre (usually the speaker’s location) as a reference point, person-oriented systems also include the listener’s location as a second reference point (Diessel 1999, pp. 39–41). Demonstratives in Marri Ngarr distinguish between close to the speaker (/ar(i)/), close to the listener (/ku/) and distant from both speaker and listener (/ji/). The glosses used for these demonstratives reflect these person values. This deictic contrast is illustrated through the pairwise contrasts below in (369) - (378). Firstly, the data points to at least a two-way deictic contrast between /ku/ and /ji/ based on the person features of personal pronouns with which these demonstratives tend to co-occur. In the example pairs in (369) - (371), nominal expressions containing /ku/ also contain a second person personal pronoun while nominal expressions containing /ji/ co-occur with a third person personal pronoun.

- (369) a. naɟi gu ŋulijɟitni
 nadi ku ŋul-niŋ-cit=ni
 2DU.PRO DEM.2 1SG.BUMP.IRR-2DU.OBL-show=FUT

‘I’ll show you two.’ (JN: IG3-013-B)

- b. niwiŋ ji ŋuliwiŋɟitni
 niwiŋ ji ŋul-wiŋ-cit=ni
 3DU.PRO DEM.3 1SG.BUMP.IRR-3DU.OBL-show=FUT

‘I’ll show those two.’ (JN: IG3-013-B)

- (370) a. niŋ gu ŋiɟerni
 niŋ ku ŋiɟer=ni
 2SG.PRO DEM.2 2SG.TRAVEL.IRR=FUT

‘You’re going to go.’ (JN: IG3-008-B)

b. naŋ ji kuperni
 naŋ ji kuper=ni
 3SG.M.PRO DEM.3 3SG.TRAVEL.IRR=FUT

‘He is going to go.’ (JN: IG3-008-B)

(371) a. nadi majjuk ku kininiŋɸaɖu andi
 nadi ma=cicuk ku kinin-ŋ-βadu=andi
 2DU.PRO MASC=two DEM.2 2SG.FEET.R.IPFV-1SG.O-push=APPR

‘You two might kick me.’ (PT: IG3-019-A)

b. naŋ ma ji kadiŋɸaɖuni
 naŋ ma= ji kadi-ŋ-βadu=ni
 3SG.M.PRO MASC= DEM.3 3SG.FEET.IRR-1SG.O-push=FUT

‘He’s going to kick me.’ (PT: IG3-019-A)

The example in (372) demonstrates this same contrast between nominal expressions in the same clause where /ku/ is associated with the second person pronoun while /ji/ associates with a third person referent (who, based on the semantics of the verb, is not near the speaker or the listener). This pattern of association where /ku/ pairs with second person pronouns while /ji/ associates with third person pronouns is found throughout the corpus.⁶⁶

(372) naɖi gu nanincukni ma ji
 nadi ku nan-ni-cuk=ni ma= ji
 2DU.PRO DEM.2 2NSG.FEET.IRR-3SG.M.OBL-look.for=FUT MASC= DEM.3

‘You two look around for him.’ (PT: IG3-022-A)

Further, in imperative constructions, where the listener is directed to perform an activity on an object interpretable as being close to them, /ku/ is often present modifying that object (373) - (374).

(373) wacen ku aɲurit
 wacen ku aɲ-yurit
 dog DEM.2 2SG.SWING.IRR-turn

‘Tie that dog up.’ (JN: IG3-007-B)

66. /ku/ can co-occur with third person pronouns but this co-occurrence happens in only a limited number of examples (and could be interpreted as a third person referent who is close to the listener).

(374) *tawur ku palmenjur*
tawur ku pal-men-cur
 tree DEM.2 2SG.BUMP.IRR-arm-cut.PL

‘Chop that branch off.’

(PT: IG3-035-B)

This pattern of /*ku*/ pairing with second person pronouns lends support to a person-oriented analysis of the demonstrative deictic system, where /*ku*/ refers to something close to the listener (or to the listener themselves), as opposed to something considered as being medial distance from the deictic centre: we might expect more variation in the person value of the pronouns with which /*ku*/ co-occurred in a distance-oriented system. In comparison to /*ji*/ and /*ku*/, /*ar(i)*/ rarely co-occurs in nominal expressions with personal pronouns, instead mostly co-occurring with nominals/nominal classifiers (375) - (376).

(375) *naŋji ari amat*
naŋci ari am-at
 THING DEM.1 2SG.PIERCE.IRR-pick.up

‘Pick up this one.’

(PT: IG3-035-A)

(376) *jin wudi ari ŋulgudakni*
jin wudi ari ŋul-yudak=ni
 1SG.PRO WATER DEM.1 1SG.BUMP.IRR-drink=FUT

‘I’m gonna drink this.’

(PT: IG3-019-A)

One example pair shows a contrast between /*ar(i)*/ and /*ku*/ where /*ar(i)*/ modifies a referent associated with the first person OBLIQUE-marked malefactive argument (i.e. the speaker), while /*ku*/ modifies a referent associated with the second person argument (i.e. the listener).

(377) a. *puja arga waniŋinkatŋaja βiŋi*
puja ar =ka wani-ŋin-kat-ŋa=ja βiŋi
 rope DEM.1 =TOP 3SG.GO.R.PFV-1SG.OBL-cut-MAL=PST now

‘This rope broke on me.’

(PT: IG3-036-B)

b. *puja ku wanipikatŋaja φiŋi*
*puja ku wani-**mbi**-kat-ŋa-ja βiŋi*
 rope DEM.2 3SG.GO.R.PFV-2SG.OBL-cut-MAL-PST now

‘That rope broke on you.’

(PT: IG3-036-B)

Sometimes either /*ar(i)*/ or /*ku*/ is possible, potentially suggesting that the referent is equidistant between both the speaker and listener (378) (and/or that the speaker and listener are in close proximity to each other).

(378) a. *mimbe ari wu*
miji-mbe ari =wu
 PLANT-WH DEM.1 =WU
 ‘What’s this food here?’ (HK: 197207-MW-M02004363A)

b. *mimbe ku wu*
miji-mbe ku =wu
 PLANT-WH DEM.2 =WU
 ‘What’s this food here?’ (RK: 197207-MW-M02004363A)

While cross-linguistic tendencies find that demonstratives usually encode some qualitative features such as number, gender, animacy, humanness, and ontology (whether a demonstrative refers to a location, object or person) (Diessel 1999, pp. 47–49), demonstratives in Marri Ngarr do not formally contrast these qualitative features. This lack of contrast is demonstrated with /ar(i)/, /ku/ and /ji/ in the example pairs below for number (379), gender (380) and animacy (381).⁶⁷

(379) a. *wacen ari amɲaja* *ɲiɲɲiɲali*
wacen ari am-ɲa=ja *ɲiɲciɲali*
 dog DEM.1 3SG.PIERCE.R.PFV-smell=PST something
 ‘The dog smelt something.’ (PT: IG3-023-B)

b. *wacen cicuk ari pamuŋgiɲaja* *ɲiɲɲiɲali*
wacen cicuk ari pam-ɲki-ɲa=ja *ɲiɲciɲali*
 dog two DEM.1 3NSG.PIERCE.R.PFV-DU.S-smell=PST something
 ‘These two dogs smelt something (different).’ (PT: IG3-023-B)

(380) a. *naɲ ji atibaɲa*
naɲ ji adi-ni-βac=a
 3SG.M.PRO DEM.3 3SG.CAUSE.R.PFV-3SG.M.OBL-fall=PST
 ‘He fell down.’ (JN: IG3-012-A)

b. *ɲa ji aɲiɲbaɲa*
ɲa ji adi-ɲ-βac=a
 3SG.F.PRO DEM.3 3SG.CAUSE.R.PFV-3SG.F.OBL-fall=PST
 ‘She fell down.’ (JN: IG3-009-A)

67. The consistency of form observed for demonstrative modifiers (which refer to objects or people) and demonstrative adverbs (which refer to locations) demonstrates a lack of formal contrast for ontological features.

- (381) a. ti ku kidibuβiŋikwani na ceŋji
 ti ku kidi-bu-βiŋi=kwani na ceŋci
 tea DEM.2 3SG.HEAT.R.IPFV-heat-now=3SG.GO.R.IPFV LOC fire
 ‘That tea’s getting warm by the fire.’ (PT: IG3-025-B)
- b. naɖinim ma annimbir ku namaŋgiparatnim
 nadi=nim ma= annimbir ku nam-ŋki-βarat=nim
 2DU.PRO=AUG MASC= three DEM.2 2NSG.PIERCE.IRR-DU.S-grab=AUG
 ‘You three fellas grab him.’ (PT: IG3-018-A)

/kan/ is an anaphoric demonstrative, referring to entities (as a modifier) or locations (as an adverb) which have previously been introduced into the discourse. It very rarely appears in elicited phrases but is common in texts. Examples of the use of */kan/* are given in (382), and (383) where the first instance of */kan/* is adverbial, referring to a previously mentioned location, while the second use is pronominal, referring to the previously mentioned entities */ɬeɬem/* and */βijelmbu/*.

- (382) ɲinimata naŋji gan wu
 ɲinim-at=a naŋci kan =wu
 2SG.PIERCE.R.PFV-pick.up=PST THING ANAPH.DEM =WU
 ‘Did you get that thing?’ (HK: 1972-MW-M02004364B)

- (383) warija gan ga amjenjimura warija ma
 warija kan =ka am-cencimur=a warija ma=
 SEQ ANAPH.DEM =TOP 3SG.PIERCE.R.PFV-plan=PST SEQ MASC=
 aɖima ɬeɬem wari ga βijelmbu wari ga
 adi-ma ɬeɬem =wuri =ka βijelmbu =wari =ka
 3SG.CAUSE.R.PFV-meet curlew =TOWARDS =TOP kookaburra TOWARDS =TOP
 niwiŋ gan ga
 niwiŋ kan =ka
 3DU.PRO ANAPH.DEM =TOP

‘and that’s where he planned to meet with curlew and kookaburra, those two.’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

/(a)ŋar/ is only observed in adverbial function in the corpus with a proximal interpretation usually translated as ‘here’ (384). It is semantically similar to the adverbial use of */ar(i)/* (385) but while */ar(i)/* contrasts with other demonstratives and forms part of a speaker-oriented deictic system (see discussion above), */(a)ŋar/* does not appear to form

part of this system. The variant /*ɲar*/ is used in the language name Marri Ngarr (Ford 2010b, p. 3).

- (384) *nin ga aɲar ɲandini kaŋgi*
nɪj =ka aɲar ɲandi=ni kaŋki
 2SG.PRO =TOP PROX.ADV 2SG.SIT.IRR=FUT 1INCL.DU.PRO
ɲumbumɲgiwaɲdini
ɲumbumɲki-waɲti=ni
 1INCL.DU.FOLLOW.IRR-after=FUT

‘You stay here, us two are gonna follow him.’ (PT: IG3-030-A)

- (385) *wuji ner ga ar nawuni*
wuji ner =ka ar nawu=ni
 PLACE 2PL.PRO =TOP DEM.1 2NSG.SIT.IRR=FUT

‘You mob are going to stay here.’ (JoN: 20000923-MC-Ancestors-to-Nama)

4.6 Case

In the typological literature it has been suggested that languages which mark grammatical relations through pronominal agreement on the verb might also exhibit a lack of case-marking (e.g. Mithun 2017, p. 53). While this is not the case in many Australian languages, where both pronominal agreement and (grammatical) case-marking are found, e.g. Warlpiri (Simpson 1983, pp. 227–230; Hale 1973) and Wambaya (Nordlinger 1998, pp. 80–101, 139), in Marri Ngarr the correlation between pronominal agreement and lack of case-marking is borne out: case-marking is a marginal feature of the Marri Ngarr grammar. Core arguments are rarely marked, with case reserved primarily for the (optional) marking of instrumental and dative referents.

Case-markers in Marri Ngarr are enclitics which can attach to any NP element. They provide evidence of the internal structure of NPs in Marri Ngarr (see §4.1 for other evidence of NP constituency in Marri Ngarr) in that case-markers can only attach at the right edge of an NP, as illustrated in (386a) below. They cannot alternately attach to each element of a nominal expression (386b), nor can they attach to an element which is not at the right edge of a nominal expression (386c). This strict positioning provides evidence that the nominal expression forms a constituent and the case-marker identifies the right edge of this constituent.

- (386) a. *jeɲi maŋgu ɲarin paɲap tamin*
jeɲi maŋku =ɲarin paɲap =zamin
 WEAP cup =INSTR 2SG.BUMP.IRR-throw.at =AWAY

‘Throw the cup at him’ (HK: 1972-MW-M02004364A)

- b. *jeɟi =ɲarin maŋku =ɲarin pal-ɣap =zamin
 WEAP =INSTR cup =INSTR 2SG.BUMP.IRR-throw.at =AWAY
- c. *jeɟi =ɲarin maŋku pal-ɣap =zamin
 WEAP =INSTR cup 2SG.BUMP.IRR-throw.at =AWAY

The form of the DATIVE case marker /=ni/ is homophonous with the FUTURE tense marker. In the corpus, DATIVE case-marking is primarily used to mark NPs which are the purpose of the action denoted by the predicate, as illustrated below in (387) and in (388) where the interrogative/indefinite pronoun /cipe ni/ ‘why/what for’ is formed from the interrogative/indefinite pronoun /cipe/ ‘what’ and the DATIVE marker.

- (387) niwir ma ji marini kunmela
 niwir ma= ji mari=ni kunmel=a
 3PL.PRO MASC= DEM.3 LANG=DAT 3PL.GO.R=PST

‘That mob went for a meeting.’ (PT: IG3-024-B)

- (388) nin ga cipe ni kinijaŋ kuwu
 nin =ka cipe =ni kinijaŋ ku=wu
 2SG.PRO =TOP WHAT =DAT 2SG.STAND.R DEM.2=WU

‘Why are you standing up there?’ (JoN: IG3-019-B)

Alternatively it can be used to mark a benefactive nominal, as in (389).

- (389) amudiparatɲɪɲali kaɟini
 am-widi-βarat-ɲɪɲali kadi=ni
 2SG.PIERCE.IRR-3DU.O-grab-1DU.ADJ 1DU.PRO=DAT

‘You grab them for us two.’ (PT: IG3-022-B)

DATIVE case-marking is optional, as shown in the example pair in (390) below where the same dative nominal takes case-marking in (390a) but does not receive marking in (390b).

- (390) a. wudini ɲinɟukɲin
 wudi=ni ɲin-cuk=ɲin
 water=DAT 1SG.FEET.R.IPFV-look.for=1SG.GO.R.IPFV

‘I’m looking around for water.’ (JoN: IG3-025-B)

- b. *niŋ wudi naŋukni*
niŋ wudi na-cuk=ni
 2SG.PRO water 2SG.FEET.IRR-look.for=FUT

‘You’re going to look around for water.’ (JoN: IG3-025-B)

Instrumental adjuncts can be marked with the case marker */=ŋarin/*, as in examples (391) and (392) below. Example (393) shows that, as seen for dative nominals, INSTRUMENTAL case-marking is optional.

- (391) *kiŋjurkwaŋa* *ajilirki* *walaŋguŋarin*
kiŋ-cur=kwaŋ=a *a=jilirki* *walaŋku=ŋarin*
 3SG.SWING.R.IPFV-cut.PL=3SG.STAND.R.IPFV=PST ANIM=meat cleaver=INSTR

‘He was chopping up the meat with a cleaver.’ (HK: IG3-018-A)

- (392) *jin ŋiŋgurpa* *wacen jeŋi* *taŋur ŋarin*
jin ŋiŋ-kurp=a *wacen jeŋi* *taŋur =ŋarin*
 1SG.PRO 1SG.SWING.R.PFV-hit=PST dog WEAP tree =INSTR

‘I hit the dog with a stick.’ (PT: IG3-036-A)

- (393) *naŋ ji aŋuŋgurpa* *jeŋi* *θawur*
naŋ ji aŋ-ŋ-kurp=a *jeŋi* *taŋur*
 3SG.M.PRO DEM.3 3SG.SWING.R.PFV-1SG.O-hit=PST WEAP stick

‘He hit me with a stick.’ (JN: IG3-006-B)

The INSTRUMENTAL case marker */=ŋarin/* can also be used as a marker of ergative case. This relationship between instrumental and ergative case is commonly found in Australian languages (Blake 2001, p. 28). In the corpus, the vast majority of transitive subject NPs are unmarked for ergative case. In the few examples where it is marked, ergative */=ŋarin/* generally appears to be used for clarity when both arguments are 3SG (394) - (395).⁶⁸

68. In other Daly languages such as Marrithiyel, ergative case is used for contrastive focus, where the ergative-marked argument is assigned agent status over another presupposed candidate (Green 1989, pp. 49–50). There is not enough ergative data in the corpus to support this analysis for Marri Ngarr; however the translation in (396) suggests contrastive focus on the case-marked NP.

(394) a. je jipezi *ɲarin* ariðapa maβindiβindi
 je= jipezi =*ɲarin* ari-*ɬap*=a ma=βindiβindi
 CHILD= little =INSTR 3SG.HANDS.R.PFV-touch=PST MASC=old.man

‘The baby touched the old man.’ (HK: 1972-MW-M02004364A)

b. maβindiβindi *ɲarin* ariðapa je jipezi
 ma=βindiβindi =*ɲarin* ari-*ɬap*=a je= jipezi
 MASC=old.man =INSTR 3SG.HANDS.R.PFV-touch=PST CHILD= little

‘The old man touched the baby.’ (HK: 1972-MW-M02004364A)

(395) a. ajircip *ɲarin* palizɪɪpa wacen ji
 a=jircip =*ɲarin* pali-zip~zip=a wacen ji
 ANIM=cat =INSTR 3SG.BUMP.R.PFV-REDUP~bite=PST dog DEM.3

‘The cat bit the dog.’ (HK: 1972-MW-M02004364A)

b. wacen *ɲarin* palizɪɪpa ajircip
 wacen =*ɲarin* pali-zip~zip=a a=jircip
 dog =INSTR 3SG.BUMP.R.PFV-REDUP~bite=PST anim=cat

‘The dog bit the cat.’ (HK: 1972-MW-M02004364A)

There is also one ergative use of /=*ɲarin*/ which marks the subject of an OBLIQUE-marked verb, given in (396).

(396) naɲ *ɲarin* meɲina
 naɲ =*ɲarin* me-*ɲin*=a
 3SG.M.PRO =INSTR 3SG.SAY/DO.R.PFV-1SG.OBL=PST

‘It was that man that told me.’ (JoN: IG3-027-A)

OBLIQUE marking signals that a verb is bivalent, but not proto-typically transitive (see §5.3 for discussion of valency and transitivity). As such, it appears that ergative case-marking in Marri Ngarr is not limited to subjects of prototypical transitive (i.e. OBJECT-marked) verbs, but can also occur more broadly on bivalent, OBLIQUE-marked verbs.⁶⁹ This pattern is also found for Marrithiyel (Green 1989, pp. 51–2) and suggests that rather than ergative marking being limited to marking subjects of transitive verbs in the language, it distinguishes between bivalent (either OBJECT or OBLIQUE-marked) verbs, and monovalent verbs.

69. It should be noted that this proposal is based on only one example, though it is coupled with the fact that the same pattern is found in Marrithiyel.

4.7 Summary

This chapter has explored various aspects of the NP in Marri Ngarr. I began in §4.1 by exploring constituency in nominal expressions. In §4.1.1 I showed that under a functional analysis a strict NP word order is observed, and that this functional analysis also reveals syntactic evidence for a determiner slot. In conjunction with case-marking features and the lack of true discontinuous expressions, these characteristics provide strong evidence of NP constituency. In §4.2 I considered various aspects of the nominal classifier system. §4.2.1 discussed the semantics of classifiers and provided examples of variable classification. §4.2.2 considered the nominal classification data in the context of the Dixon (1982, pp. 213–218) ‘noun class/noun classifier’ distinction, finding that the Marri Ngarr data does not fit neatly into either category, displaying elements of both types. I also provided data demonstrating grammaticalisation of parts of the system. Distinguishing nominal classifiers from nominals with generic reference is not straightforward; §4.2.3 provided some diagnostics to help delineate these types of elements in Marri Ngarr. In §4.2.4, I considered the role of the classifier when it attaches to or precedes the predicate §4.2.4. In §4.3.1 I explored the potential distinction between ‘noun’ and ‘adjective’ parts of speech in Marri Ngarr. Many Australian languages do not distinguish these categories, instead just having one ‘nominal’ part of speech. Similarly, while there are some syntactic and functional differences between elements which denote entities versus elements which denote properties of entities, I find no convincing morphosyntactic distinctions to suggest a part of speech distinction for these elements in Marri Ngarr. In (§4.3 - §4.5) I provided descriptions of the various parts of speech which comprise the NP, while the final section in §4.6 explored case-marking.

In the next chapter, I examine the fundamental aspects of the most complex part of speech in the language: the verb.

Chapter 5

Structure and semantics of the verb

5.1 Introduction

The verb is the most morphologically complex element in Marri Ngarr, having the ability to encode various types of clausal information to the extent that it often functions on its own as a clause. The verb is comprised minimally of the classifier stem.⁷⁰ The classifier stem is a central element of the verb which provides subject, TAM and transitivity information, as well as semantic information about the predicate (see overview of this element in §5.2). When the classifier stem functions as a verb alone I term this construction a ‘simple verb’. An example is given in (397) below.

- (397) *kuzi*
kuzi
3SG.SIT.R

‘He/she’s sitting.’ (JJ: RN5-001-B)

Alternatively verbs are formed by a type of complex predicate which is also common to many languages of northern Australia (McGregor 2002; Bower 2014). Complex predicates may be defined as structures which involve at least two predicative elements which both contribute to the argument structure of the same predicate (e.g. Butt 1995). In a type of complex predicate found in northern Australian languages, often termed a ‘coverb construction’, an inflecting verb co-occurs with an uninflecting verb (also known as the ‘coverb’) and the two elements combine to provide the argument structure information to the same predicate (Bower 2014, p. 264; Amberber, B. Baker, and Harvey 2007, p. 209). The inflecting verb always marks TAM and pronominal agreement information if the particular language marks these features, whereas the uninflecting verb does not (Amberber, B. Baker, and Harvey 2007, p. 209). Languages with these constructions have anywhere between one and 45 inflecting verbs (Bower 2014, p. 276) which form a closed class, while the uninflecting verbs are an open class accepting new members such as English borrowings (Amberber, B. Baker, and Harvey 2007, p. 216). In the majority

70. TENSE/MOOD marking is also usually obligatory but dependent on sentential mood - see table 7.8 in §7.2 for details.

of Australian languages which possess this type of complex predicate, the combination of uninflecting and inflecting verb forms a phrasal verb, i.e. both predicational elements form separate words based on stress and other wordhood tests (Bown 2014, pp. 278–9). In the minority of cases where the two elements form one phonological word, these two predicational elements can be adjacent, or other verbal morphology can appear between them (Bown 2014, p. 279). For the majority of Australian languages, the uninflecting verb precedes the inflecting verb (Dixon 2002, p. 186).

Marri Ngarr regularly utilises the type of complex predicate described above. In Marri Ngarr the construction is comprised of an inflecting verb, here called the ‘classifier stem’, which is paired with an uninflecting verb, termed the ‘lexical stem’ (in using these terms I follow Nordlinger (e.g. 2015)) and forms one phonological word. I use the term ‘bipartite verb’ to describe the construction in Marri Ngarr. The classifier stem provides subject, TAM, transitivity information and semantic information as is the case when it occurs as a simple verb, while the lexical stem provides lexical semantics and argument structure information. The semantic input of the classifier stem differs from simple verb to bipartite verb function, with the classifier stem in bipartite constructions generally taking on a more classificatory semantic role, while the lexical stem provides the majority of the semantic information.

(398) *ɲaka jin awu kujimburija*
ɲaka jin awu ku-cimburi=ja
 sister 1SG.PRO ANIM 3SG.SIT.R-eat=PST

‘My sister ate some meat.’

(UNK: 196905-DT-D01009403)

The two predicational elements appear in the uncommon order (in Australian terms) classifier stem - lexical stem and can appear adjacent to each other (399), or alternatively can have other verbal morphology appear between them (400). While this order is uncommon in the Australian context, it is the default order in Western and Southern Daly (Nordlinger 2017, pp. 790–792). Interestingly in Ngan’gitjemerri, Reid (2003) finds that this order may be quite a recent innovation as data from the 1930s includes phrasal verbs with the inverse uninflecting - inflecting verb order. Complex verb constructions formed with the SAY/DO classifier stem across Western and Southern Daly still display these earlier phrasal and ordering characteristics (Mansfield 2016; Green, Reid, and Nordlinger 2017).

(399) *ma kujibut na deri*
ma= ku-jibut na deri
 MASC= 3SG.SIT.R-swim LOC creek

‘He’s swimming in the creek.’

(HK: 1972-MW-M02004364A)

(400) kuŋinazu jin ni
ku-ŋin-azu jin =ni
3SG.SIT.R-1SG.OBL-laugh 1SG.PRO =DAT

‘He’s laughing about me.’ (RK: 1972-MW-M02004364B)

Verbs can take a range of verbal morphology in Marri Ngarr. An example of a bipartite verb is given below in (401) involving the classifier stem and (reduplicated) lexical stem, plus pronominal agreement marking, reciprocal marking, a serial classifier and tense marking. This morphology is affixed in a strict templatic fashion. The verb template is given in table 5.1. This template provides the range of possible morphology which can appear on the verb (though the maximum number of slots filled in any given verb in the corpus is seven).

(401) nađi kindiliŋteŋaŋgikandiŋa
nadi kindil-niŋ-zaɿ~zaɿ-aŋki=kandi-ŋ=a
2DU.PRO 2NSG.BUMP.R.IPFV-2DU.OBL-REDUP-hit.PL-RECIP=2.SIT.R.IPFV-DU.S.INTR=PST

‘You two fellas punched each other.’ (PT: IG3-036-B)

	1	2	3	4	5	6	7	8	9	10	11	12
SUBJECT-												
-DUAL SUBJECT-												
-classifier root-												
-PLURAL SUBJECT												
DUAL SUBJECT/												
(U)AUG SUBJ>MIN.O-												
OBJECT/OBLIQUE												
body part noun/ APPLICATIVE												
lexical stem												
ADJUNCT												
MALEFACTIVE												
adverbial												
RECIPROCAL												
SERIAL CLASSIFIER												
DUAL SUBJECT												
AUGMENTED ARG												
TENSE/MOOD												

Table 5.1: Verb template

This chapter explores the fundamental aspects of both simple and bipartite verbs. As described above the classifier stem is itself a complex element which encodes various types of information. An overview of this element is given in §5.2, while its role in marking transitivity is documented in §5.3.3.2, while the semantics of the classifier stem are explored in §5.4 and the SUBJECT marker, which forms part of the classifier stem, is described in §5.6.2. TAM features, another type of information marked on the classifier stem, are discussed elsewhere in §7.1. The contribution of the classifier stem and lexical stem to the argument structure of the predicate is addressed in §5.3, which also examines other elements of the verb that contribute argument structure information. While the lexical stem is an uninflecting element it frequently appears reduplicated in the corpus, and a small number of lexical stems possess suppletive forms. The semantics of lexical stems and their reduplicated or suppletive forms are discussed in §5.5. Aside from these central predicational elements, the verb encodes information about clausal arguments

through pronominal agreement markers. A formal description of these markers and their functions is given in §5.6.

While these sections explore fundamental features of the verb, there are many other types of information which are also expressed through the verb. These topics are left to other chapters. Argument number, which is expressed through dedicated number marking slots as well as being marked on pronominal agreement markers, is the topic of chapter §6. TAM, which is marked via the classifier stem, serial classifier, and dedicated TAM marker is explored in chapter §7. Chapter §8 discusses other types of verbal morphology such as reciprocals, applicatives and a malefactive marker, as well as body part incorporation.

5.2 Classifier stem overview

There are 21 classifier stems in Marri Ngarr. These are distinct from each other both formally and semantically and contribute several types of information to the clause. As shown in table 5.2 below, six of the classifier stems are formally INTRANSITIVE and 15 are TRANSITIVE, based on DUAL SUBJECT marking characteristics (§5.3.3.1). INTRANSITIVE classifier stems favour occurrence in intransitive verbs while TRANSITIVE classifier stems favour occurrence in transitive verbs, though these are just tendencies (see further discussion in §5.3.3.1 and §5.3.3.2).

INTRANSITIVE	TRANSITIVE
SIT	STAND CMLPX
STAND	SAY/DO
LIE	HANG
GO	PIERCE
TRAVEL	SWING
PASS	BUMP
	HANDS
	FEET
	MOUTH
	CAUSE
	PUT
	COOK
	HEAT
	TIE
	FOLLOW

Table 5.2: Formally INTRANSITIVE and INTRANSITIVE classifier stems

Eight of the classifier stems can occur in simple verbs, where the classifier stem is the only predicative element. These are listed in table 5.3 below. In this simple verb function, SIT, STAND, LIE and HANG are inherently atelic (§5.4.1). STAND and TRAVEL only occur in simple verbs, while SAY/DO can also occur in two types of complex construction where it forms a predicate with another element but the two elements constitute separate words (§5.4.1 and §9.3). All other classifier stems able to occur in simple verbs (SIT, LIE, GO,

HANG and PIERCE) can also occur in bipartite verbs, where they are positioned in slot 1 of the verb template and combine with the lexical stem to form a predicate which is also one phonological word. The remaining classifier stems only occur in bipartite verbs.

Simple verb	Bipartite verb only
SIT	STAND CMLPX
STAND	PASS
LIE	SWING
GO	BUMP
TRAVEL	HANDS
SAY/DO	BUMP
HANG	HANDS
PIERCE	FEET
	MOUTH
	CAUSE
	PUT
	COOK
	HEAT
	TIE
	FOLLOW

Table 5.3: Classifier stems by verb type (simple or bipartite)

As the classifier stem is the only predicative element in simple verbs, it thus provides all the semantic information about the event. The classifier stems which can occur in simple verbs generally have basic semantics and are usually glossed based on their semantics when occurring in a simple verb.⁷¹ When classifier stems occur in bipartite verbs, their semantics are usually more classificatory (McGregor 2002). The contrast in semantic input from simple to bipartite verb is exemplified below with *SIT*, where in (402a) it expresses an event of sitting, while in (402b) it expresses the stance of the subject engaged in a separate event. The semantics of classifier stems is explored in greater depth in §5.4.

- (402) a. *ŋawuni*
ŋawu=ni
 1SG.SIT.IRR=FUT
 ‘I’m going to sit down.’ (JN: IG3-012-B)
- b. *ŋawunbimazini*
ŋawu-mbi-mazi=ni
 1SG.SIT.IRR-2SG.OBL-wait=FUT
 ‘I’m gonna wait for you.’ (JoN: IG3-022-A)

71. *PIERCE* is an exception: in simple verbs it denotes an event of ‘painting’ but this simple verb function is very rare in the corpus, while in bipartite verbs its semantics seem more aligned with actions associated with ‘piercing’ (§5.4.2), hence its gloss.

As well as occurring in the first slot in the verb template, six classifier stems (SIT, STAND, LIE, HANG, GO and TRAVEL, all of which can function as simple verbs, and most of which are INTRANSITIVE) can also function as serial classifiers. In (403) below, CAUSE functions as the classifier stem in slot 1, while STAND functions as a serial classifier further down in the verb template (in slot 9). Serial classifiers convey imperfectivity and sometimes stance information. HANG and TRAVEL are rare as serial classifiers, with each of these classifier stems occurring in this function only once in the corpus. Serial classifiers are discussed in §7.1.3.

- (403) *ka|a kitararkwaŋ*
karila kidi-ni-wa|a|ɬ=kwaŋ
 stone 3SG.CAUSE.R.IPFV-3SG.M.OBL-wobble=3SG.STAND.R.IPFV
 ‘The stone is insecure/wobbly.’ (HK: 197207-MW-M02004363A)

Five classifier stems (SIT, STAND, LIE, GO and SAY/DO: again, all of which can function as simple verbs and are INTRANSITIVE), can function as copulas, as illustrated with the existential example in (404). See §9.3 for further examples of the types of copula constructions observed in the corpus.

- (404) *naŋji jin tep ɬekudar kwaŋ*
naŋci jin tep ɬekudar kwaŋ
 THING 1SG.PRO tape recorder 3SG.STAND.R
 ‘My tape recorder is here.’ (RK: 197207-MW-M02004362B)

A formal paradigm is given below for the FEET classifier stem. This paradigm illustrates the formal distinctions which are exhibited by the majority of the classifier stems. These distinctions are described below.

	R.IPFV	R.PFV	IRR
1INCL.DU	/kumbun-/	/ɲumbuni-/	/ɲumbun-/
SG	1 /ɲin-/	/ɲani-/	/ɲadi-/
	2 /kinin-/	/ɲini-/	/na-/
	3 /kin-/	/na-/	/kadi-/
NSG	1 /kinin-/	/ɲirini-/	/ɲirin-/
	2 /kinin-/	/nani-/	/nan-/
	3 /kun-/	/βani-/	/βirin-/

Table 5.4: Subject and TAM distinctions on the FEET classifier stem

Classifier stems inflect for subject person information (1, 2, and 3) with an INCLUSIVE/EXCLUSIVE distinction for first person, and subject number information (SG/NSG) (with

three INTRANSITIVE classifier stems also having PLURAL forms (§6.1.3); thus distinguishing DUAL⁷² and PLURAL subject categories). These distinctions (along with the characteristics of the non-subject pronominal markers) are described in §5.6. Classifier stems also mark mood and aspectual information: a REALIS/IRREALIS distinction is present for all classifier stems and in the REALIS a perfectivity distinction (PERFECTIVE/IMPERFECTIVE) is found for all the classifier stems except SIT, STAND, LIE and TRAVEL, with GO exhibiting the perfectivity distinction only in bipartite verbs. These formal contrasts in mood and aspect categories on the classifier stem are outlined in §7.1. All of these formal contrasts result in a total of around 360 possible classifier stem forms in the system, though syncretism is common classifier-internally in feature-matched forms of REALIS PERFECTIVE and IRREALIS classifier stems. See Appendix A for the full set of classifier stem paradigms.

The COOK classifier stem paradigm is given below in table 5.5. The forms of this classifier stem demonstrate something which can be found across the majority of classifier stems: most forms are readily segmentable as a sequence of a subject marker followed by a classifier root (as indicated by hyphenation).

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbu- <i>ni</i> /	/ɲumbu- <i>ni</i> /	/ɲumbu- <i>ni</i> /
SG	1	/ɲi- <i>ni</i> /	/ɲi- <i>ni</i> /	/ɲa- <i>ci</i> /
	2	/kini- <i>ni</i> /	/ɲini- <i>ni</i> /	/ɲa/ ~ /ɲe/
	3	/ki- <i>ni</i> /	/ɲa/ ~ /ɲe/	/ka- <i>ci</i> /
NSG	1	/kiri- <i>ni</i> /	/ɲiri- <i>ni</i> /	/ɲiri- <i>ni</i> /
	2	/kini- <i>ni</i> /	/ni- <i>ni</i> /	/ni- <i>ni</i> /
	3	/ku- <i>ni</i> /	/βi- <i>ni</i> /	/βiri- <i>ni</i> /

Table 5.5: COOK classifier stem forms

Despite the fact that these forms can generally be parsed, I treat the classifier stem as a whole portmanteau unit rather than separate elements. While (405) below again shows a classifier stem form comprised of a segmentable subject marker followed by a classifier root (i.e. /ɲi-*ni*/ 1SG.R.PFV-COOK) in other cases the SUBJECT marker and classifier root have fused so that they are unsegmentable (406) (also see the SIT paradigm in Appendix A which demonstrates a lack of a segmentable forms throughout the paradigm) while elsewhere the classifier root is morphologically zero and the classifier stem is simply represented by the form of the subject marker (407).

- (405) ɲɲiβata waɲɲi niciɲani jeɲi ari
 ɲɲi-βat=a waɲɲi niciɲani jeɲi ari
 1SG.COOK.R.PFV-rise=PST after morning today DEM.1

‘I woke up late this morning.’

(PT: IG3-033-A)

72. For all other classifier stems, DUAL SUBJECT number value can be expressed via a DUAL SUBJECT marker situated in slot 2.

(406) wudi ti kaɲiwuɖak ɸiɲi
 wudi ti kaɲi-yudak βiɲi
 WATER tea 1SG.SIT.R-drink now

‘I’m drinking tea now.’

(HK: 1972-MW-M02004364B)

(407) ɸandi gila ɲabaja
 βandi kila ɲa-ba-ja
 sun big 1SG.MOUTH.R.PFV-come-PST

‘I came out at midday.’

(JN: IG3-008-A)

Further, TAM can be marked in various positions in the classifier stem, resulting in formal TAM distinctions marked in idiosyncratic ways for each classifier stem (particularly in 1SG forms). For example, table 5.6 below shows that 1SG.PIERCE.R.IPFV has a distinct form of the classifier root, /*mun*/, compared with the forms of the other two TAM series, /*m*/, and 1SG.PIERCE.R.PFV contrasts with 1SG.PIERCE.IRR in the vowel of the SUBJECT marker. 1SG.FEET.R.PFV contrasts with 1SG.FEET.IRR due to a nasal/stop alternation of the classifier root consonant and these two forms contrast with 1SG.FEET.R.IPFV in the quality of the subject marking vowel, as well as presence of a final vowel. In each classifier stem, the three-way formal TAM contrast is spread across the whole classifier stem.

	R.IPFV	R.PFV	IRR
PIERCE	/ɲu-mun/	/ɲa-m/	/ɲu-m/
FEET	/ɲi-n/	/ɲa-ni/	/ɲa-di/

Table 5.6: 1SG PIERCE and FEET classifier stem forms

Due to the variability in segmentability of subject marker and classifier root, and the marking of TAM features being spread across the whole of the classifier stem, I gloss the classifier stems as a single portmanteau form.

5.3 Argument structure and transitivity

This section examines the argument structure and transitivity of verbal constructions in Marri Ngarr. Wilson (1999), Schultze-Berndt (2000), and McGregor (2002) have provided analyses of argument structure and transitivity of complex predicates in various Australian languages and show that gaining an understanding of argument structure and transitivity is not straightforward in languages which use complex predicate constructions. Amberber, B. Baker, and Harvey (2007) contains both Australian language and cross-linguistic discussion of these same issues. In the Marri Ngarr example in (408) below where the verb involves two predicative elements, the classifier stem and lexical stem, it can be difficult to tease apart the contribution to argument structure made by each element: either of these elements could potentially specify the number, and type of arguments required.

- (408) *ɲudimbijiljilni* *mari*
ɲudi-mbi-jil~jil=ni *mari*
 1SG.CAUSE.IRR-2SG.OBL-REDUP~tell.truth=FUT LANG
 ‘I’ll tell you a story.’ (HK: 1972-MW-M02004364B)

Another challenge in the analysis of argument structure in Marri Ngarr, where arguments are cross-referenced pronominally on the verb, is that 3SG objects are unmarked pronominally. 3SG object is the least marked person and number category in terms of naturalness and, therefore, frequently features in events denoted by verbs in the corpus. This means that the pronominal marking of transitive verbs involving 3SG patients is identical to that of intransitive verbs, making it difficult to determine transitivity and argument structure of a given verb. In (409) and (410) below, the subject is marked as part of the classifier stem and this is the only argument that is expressed morphologically in either clause. Presumably in (410) there is a 3SG theme which is expressed in the NP /*awu*/; however there is no morphological evidence to show that this NP expresses an argument of the verb, as opposed to an adjunct. In any case, argument NPs are optional, and relatively uncommon so cannot be relied upon to be indicators of clausal arguments.

- (409) *nicijana* *ɲajawurni*
nicijani *ɲaja-wur=ni*
 tomorrow 1SG.STAND.CMPLX.IRR-return=FUT
 ‘I’m going to come back tomorrow.’ (UNK: 196905-DT-DO1009402)

- (410) *awu* *ɲajibirni* *nicijani*
awu *ɲaci-biɽ=ni* *nicijani*
 ANIM 1SG.COOK.IRR-cook=FUT tomorrow
 ‘I’m going to cook the beef tomorrow.’ (UNK: 196905-DT-DO1009402)

Similarly, trivalent verbs, which usually take 3SG patients/themes, have identical pronominal marking patterns to bivalent OBLIQUE-taking verbs, as illustrated below in (411).

- (411) a. *niɲ* *tʰaɲanbani*
niɲ *za-ɲin-ba=ni*
 2SG.PRO 2SG.MOUTH.IRR-1SG.OBL-come=FUT
 ‘You’re going to visit me.’ (JN: IG3-006-B)
- b. *tɲaɲanβapni* *jin*
za-ɲin-βap=ni *jin*
 2SG.MOUTH.IRR-1SG.OBL-transfer=FUT 1SG.PRO
 ‘You’re going to give it to me.’ (JN: IG3-011-A)

Further, unlike core arguments which must be expressed morphologically via pronominal marking (excluding 3SG OBJECT), oblique argument marking is only optionally expressed (§3.2): while both verbs are semantically bivalent in (412) below (because a purposive referent is inherent to the verb), only (412a) is also morphologically bivalent.

- (412) a. *jin kaɲimbimazija*
*jin kaɲi-**mbi**-mazi=ja*
 1SG.PRO 1SG.SIT.R-2SG.OBL-wait=PST
 ‘I was waiting for you.’ (PT: IG3-021-B: 11)
- b. *gawijmazi*
kawu-ɲ-mazi
 3DU.SIT.R-DU.S.INTR-wait
 ‘Those two are waiting.’ (JJ: RN5-002-A)

Despite this regular lack of overt argument marking, there are a range of elements in the morphosyntax which can provide argument structure and transitivity information. The OBJECT and OBLIQUE markers directly encode non-subject arguments (§5.3.1), while other elements such as the classifier stem, lexical stem, the DUAL SUBJECT marker, incorporated body parts, and APPLICATIVE markers also contribute to the understanding of verbal argument structure/transitivity. The following sections detail the types of information these elements provide and the ways in which they interact with each other to express the overall verbal argument structure.

5.3.1 Pronominal marking

In the Hopper and Thompson (1980) approach to transitivity, the transitivity of events is concerned with the effectiveness of the transferral of an action from one participant to another. Hopper and Thompson (1980, pp. 252–253) identify a number of semantic parameters of transitivity, such as ‘kinesis’ (action/non-action), ‘aspect’ (telic/atelic), ‘affectedness of O(bject)’⁷³ and ‘individuation of O(bject)’. The relative height of these parameters is thought to influence the effectiveness of the transferral of the action; therefore rendering a clause more or less prototypically transitive. For example, considering the kinesis parameter, actions such as ‘hug’ can be effectively transferred to the patient while states such as ‘like’ cannot; in terms of aspect, a telic action would be considered more effectively transferred to a patient than an atelic one. The ‘affectedness of O(bject)’ parameter says that an event in which a participant is more wholly affected by an action is considered relatively more transitive than an event involving an unaffected or partially affected participant. In order for a participant to be suitably affected, they must also be adequately ‘individuated’: for example, human/animate, singular, referential nouns are considered more individuated (from each other and from background) than inanimate, plural, non-referential nouns (Hopper and Thompson 1980, p. 253). Similarly,

73. Hopper and Thompson (1980, 252, fn.1) note that their use of the term ‘object’ does not reflect any assumptions about the grammatical function of this element.

Næss (2007) describes ‘maximally distinct arguments’ as central in defining prototypical transitive verbs. According to Næss (2007, p. 30), participants must be distinct from the background and from each other and play distinct roles in an event to be considered arguments of a prototypical transitive verb. These prototype transitivity theories predict that a divergence in the semantic transitivity of an event from prototypical transitivity (e.g. an incomplete transferral of an event/action to a participant) will correlate with a morphosyntactic divergence from the prototypical transitive construction in a language (Hopper and Thompson 1980, p. 255; Næss 2007, p. 17).

In the Marri Ngarr corpus, referents marked by OBJECT can frequently be interpreted as satisfactorily affected by an event, i.e. they are patients. OBJECT occurs on verbs with English interpretations such as ‘wash’, ‘shake’, ‘poke’, ‘hit’, ‘grab’, ‘tie up’ and ‘teach’. This patient-marking function of the OBJECT marker is illustrated below in (413) - (415). See also §5.6.3 for discussion of the functions of OBJECT.

- (413) **arimbirpita**
 ari-**mbir**-pit=a
 3SG.HANDS.R.PFV-3PL.O-wash=PST
 ‘He washed that mob.’ (HK: 197207-MW-M02004363A)

- (414) **jin muṅari ṅiwera ariṅwaṅaṅa**
 jin muṅari ṅiwer=a ari-ṅ-waṅaṅa=a
 1SG.PRO sleep 1SG.LIE.R=PST 3SG.HANDS.R.PFV-1SG.O-shake=PST
 ‘I was asleep, he shook me (awake).’ (PT: IG3-037-B)

- (415) **pundi amuṅduṅa**
 pundi am-ṅ-zuc=a
 finger 3SG.PIERCE.R.PFV-1SG.O-poke=PST
 ‘He poked me with his finger.’ (PT: IG3-037-B)

The encoding of patients is the primary function of the OBJECT marker, and in the absence of a dedicated marker of transitivity OBJECT-marking is thus considered the best available indicator of verbal transitivity. OBJECT-marking is also considered the only formal marker of verbal transitivity in Murrinhpatha and Ngan’gitjemerri (Nordlinger 2011, pp. 713–714; Reid 2011, p. 226). The combination of OBJECT-marking and a TRANSITIVE⁷⁴ classifier stem on the verb (without any other distinguishing morphosyntax - see discussion of impersonal and psych verbs below) generally indicates a prototypical transitive verb in Marri Ngarr. Note that the close association of syntactically incorporated body parts to the OBJECT marker (see also §5.6.3 and §8.1.2) means that incorporated

74. Formal transitivity value of the classifier stem is determined by the form of the DUAL SUBJECT marker it takes (§5.3.3.1).

body parts can also be used to indicate transitivity: in (416) the incorporated body part /mi/ functions as the possessum and is linked to the possessor encoded by OBJECT (see §8.1.1 for further discussion of incorporated body part constructions).

- (416) pariŋmiwurita
 βari-ŋ-mi-yurit=a
 3NSG.HANDS.R.PFV-1SG.O-eye-cover=PST
 ‘They covered my eye.’ (PT: IG3-034-A)

This is a useful association when a patient of a transitive verb is 3SG: if the construction involves a syntactically incorporated body part, the body part usually provides an alternate way of detecting the patient, and thus another way of identifying a transitive verb (417). The incorporated body part can alternatively associate with an intransitive subject, but when this is the case, it is signalled by the transitivity value of the classifier stem (§5.3.3.2).

- (417) jin naŋ ŋarimiwurita
 jin naŋ ŋari-mi-yurit=a
 1SG.PRO 3SG.M.PRO 1SG.HANDS.R.PFV-eye-cover=PST
 ‘I covered his eye.’ (JoN: IG3-034-A)

In contrast to the patient-mapping of the OBJECT marker, the OBLIQUE marker maps to a range of thematic roles including beneficiaries, goals, recipient and source arguments, but never encodes typical patients. Note also that in some trivalent verbs and verbs which include the malefactive marker, OBLIQUE can sometimes also mark adjuncts. Determination of a referent as an argument or adjunct is based on a judgement regarding the inherentness of the referent to the meaning of the verb. A referent deemed inherent to understanding the meaning of the verb is considered an argument, while an adjunct is not considered necessary for understanding the verb’s meaning.

From the perspective of transitivity, in OBLIQUE-marked verbs we generally find that there is a less effective transferral of event to the argument, resulting in a less affected argument. The OBLIQUE marker indicates this divergence from the transitive prototype. In the examples in (418) - (420), the event denoted by the verb does not necessarily affect the OBLIQUE-marked argument. Further details about the OBLIQUE marker are given in §5.6.4.

- (418) niŋ jeŋanθandak
 niŋ je-ŋin-ɬandak
 2SG.PRO 2SG.MOUTH.IRR-1SG.OBL-listen
 ‘You listen to me.’ (PT: IG3-030-B)

(421) *jeŋi arin̄pita*
jeŋi ari-ŋ-pit=a
 today 3SG.HANDS.R.PFV-1SG.O-wash=PST
 ‘He washed me today.’ (HK: 197207-MW-M02004362B)

(422) *mazi ađin̄buta* *miji*
mazi adi-ŋ-but=a *miji*
 belly 3SG.CAUSE.R.PFV-1SG.O-fill=PST PLANT
 ‘I’m full up from food. [Lit: It filled my stomach with food.]’
 (JoN: IG3-032-B: 39)

Secondly, serial classifier agreement characteristics in impersonal verbs are distinct from those in prototypical transitive verbs, and it is here that we can see the semantic divergence from prototypical transitivity correlating with a morphosyntactic divergence. As shown below in the transitive construction in (423a), serial classifiers usually agree with the features of the SUBJECT; however in some impersonal constructions in the corpus, the serial agrees with the OBJECT-marked argument, as illustrated in (423b). Nordlinger (2011, p. 721) also suggests that this same serial agreement pattern found in impersonal constructions in Murrinhpatha may be due to the construction’s divergence from a prototypical transitive verb.

(423) a. *kariŋmencujukuži*
kar-ŋ-men-cuk~cuk=kuzi
 3SG.HANDS.R.IPFV-1SG.O-arm-REDUP~rub=3SG.SIT.R.IPFV
 ‘He’s rubbing my arm.’ (RK: 1972-MW-M02004364B: 60)

b. *kariŋwutŋawuni*
kar-ŋ-wut=ŋawu=ni
 3SG.HANDS.R.IPFV-1SG.O-limp=1SG.SIT.IRR=FUT
 ‘I’ll be limping.’ (JN: IG3-012-B)

Some psych verbs are also identical to prototypical transitive constructions in terms of being bipartite verbs involving an OBJECT marker and TRANSITIVE classifier stem; however in the case of these verbs the SUBJECT argument maps to an experiencer while the OBJECT maps to a stimulus. Again in these verbs, there is a sense that the OBJECT-marked argument could potentially be unaffected by the event.⁷⁵ In terms of the transitivity parameters proposed by Hopper and Thompson (1980, p. 253), these constructions would be low in the aspect parameter as they are (atelic) states and, therefore, not considered semantically prototypically transitive. Morphosyntactically, these lexicalised constructions are distinct from prototypical transitive verbs in that they involve a (body part) nominal which consistently precedes the verb (424) - (425).

75. Only a literal translation of (425) would produce an affected patient, i.e. ‘Lit: I hold your ears’.

- (424) niwɨŋ muli cicuk ji mazi
niwɨŋ muli= cicuk ji mazi
3DU.PRO FEM= two DEM.3 belly
kumuniŋatkawiŋ
kumun-ni-ŋ-at=kawu-ŋ
3NSG.PIERCE.R.IPFV-(U)AUG.S>MIN.O-1SG.O-pick.up=3.SIT.R.IPFV-DU.S.INTR
‘Those two women like me.’ (PT: IG3-022-A)

- (425) θaŋi ŋiriŋbac
ʔaŋi ŋir-ŋ-bac
ear 1SG.HANDS.R.IPFV-2SG.O-hold
‘I know you.’ (RK: 197207-MW-M02004362B)

Note that verbs of vision, which involve an experiencer and stimulus and, therefore, deviate semantically from the transitive prototype are, nevertheless, constructed morphosyntactically as prototypical transitive verbs.

- (426) a. φaliwudimudija
pali-widi-mudi=ja
3SG.BUMP.R.PFV-3DU.O-see=PST
‘He saw those two.’ (JN: IG3-012-A)
- b. niwɨŋ ji
niwɨŋ ji
3DU.PRO DEM.3
kudiniŋmelgawiŋ
kudin-ni-ŋ-mel=kawu-ŋ
3NSG.CAUSE.R.IPFV-(U)AUG.S>MIN.O-1SG.O-stare=3.SIT.R.IPFV-DU.S.INTR
‘Those two fellas are looking at me.’ (JN: IG3-014-A)

While the OBLIQUE marker can be seen as signalling divergence from prototypical transitivity because the arguments it encodes usually map to non-patient thematic roles, it can also be used to mark a type of patient argument, but one which is non-standard. In reflexive and reciprocal constructions, the OBLIQUE-marker encodes arguments which map to the patient thematic role; however these are atypical patients because they are co-indexed with the subject. As can be seen below in (427) and (428), OBLIQUE-marking occurs on reflexive and reciprocal versions of normally OBJECT-taking verbs. In terms of deviation from prototypical transitivity, the use of OBLIQUE-marking in these constructions reflects the fact that these arguments are not distinct from the subject, in accordance with ideas of maximal distinctness (Næss 2007, p. 30) or individuation (Hopper and Thompson 1980, p. 253).

- (427) a. ηa muli ji karwidipitkuzi
 ηa muli= ji kar-widi-pit=kuzi
3SG.F.PRO FEM= DEM.3 3SG.HANDS.R.IPFV-3DU.O-wash=3SG.SIT.R.IPFV
pidinjajaβurpurka
padi-ŋ ja=purkpurk=a
3NSG.CAUSE.R.PFV-DU.S.INTR CHILD=little=PST
‘That woman was washing the two children.’ (PT: IG3-038-B: 27)
- b. ηa muli ji kariŋpitkuzi
 ηa muli= ji kar-ŋ-pit=kuzi
3SG.F.PRO FEM= DEM.3 3SG.HANDS.R.IPFV-3SG.F.OBL-wash=3SG.SIT.R.IPFV
pundi ηa
pundi ηa
REFL
‘That woman was washing herself.’ (PT: IG3-038-B: 28)
- (428) a. kariŋgi $\eta\text{umbulimudija}$
 kariŋki $\eta\text{umbuli-mudi=ja}$
1INCL.DU.PRO 1INCL.DU.BUMP.R.PFV-see=PST
‘You and me saw him.’ (JN: IG3-009-B: 9)
- b. $\eta\text{umbulingimudikariŋgi}$
 $\eta\text{umbuli-ŋki-mudi-kariŋki=ja}$
1INCL.DU.BUMP.R.PFV-1INCL.OBL-see-RECIP=PST
‘Us two fellas saw each other.’ (PT: IG3-019-B: 49)

5.3.2 Lexical stem argument structure

The lexical stem contributes argument structure information to the bipartite verb by specifying the number of arguments and their thematic roles. This section briefly outlines the role the lexical stem plays in providing argument structure information, before moving on to discuss the way the lexical stem and classifier stem interact to determine the overall argument structure and transitivity of the verb in §5.3.3.

The example pair below demonstrates the lexical stem’s contribution to the argument structure. When classifier stems function as simple verbs they always form intransitive verbs,⁷⁶ as illustrated with *SIT* in (429a). However, when this classifier stem combines with the lexical stem */bicmi/*, the resulting verb is bivalent, as indicated by the *OBLIQUE* marker, showing that the lexical stem must contribute one additional argument.

76. *PIERCE* is an exception: it is observed in two examples in the corpus functioning as a simple verb in a (presumably) transitive clause with an unmarked 3SG object (see §5.4.2.1).

- (429) a. jin gaŋi na wuji
 jin kaŋi na wuji
 1SG.PRO 1SG.SIT.R LOC camp
 ‘I’m sitting in camp.’ (JN: IG3-007-A: 27)
- b. naŋ kaŋinibicmi
 naŋ kaŋi-ni-bicmi
 3SG.M.PRO 1SG.SIT.R-3SG.M.OBL-watch
 ‘I was looking at him.’ (JN: IG3-012-A)

The example pair in (430), in which both examples maintain the same classifier stem, shows that in addition to specifying the number of arguments, each lexical stem also provides information about the thematic roles of the arguments they require. While in (430a) */-zip-/* requires an agent and patient, in (430b) */-mudi-/* requires an experiencer and stimulus.

- (430) a. azadima ϕ aliŋd̪iŋipa jeŋi
 a=zadima pali-ŋ-zip~zip=a jeŋi
 ANIM=snake 3SG.BUMP.R.PFV-1SG.O-REDUP~bite=PST today
 ‘The snake bit me today.’ (HK: 1972-MW-M02004364B)
- b. paliŋmudija
 pali-ŋ-mudi=ja
 3SG.BUMP.R.PFV-1SG.O-see=PST
 ‘She saw me.’ (PT: IG3-016-A)

The specification of thematic role by the lexical stem is shown morphologically in (431) where the GO classifier stem co-occurs with the lexical stem */-pir-/* and takes OBJECT-marking in (431a), while in (431b) the co-occurrence of the same classifier stem with the lexical stem */-muriŋ-/* results in OBLIQUE-marking.

- (431) a. niwir ma ji panmeliŋpira
 niwir ma= ji panmeli-ŋ-pir=a
 3PL.PRO MASC= DEM.3 3PL.GO.R.PFV-1SG.O-leave=PST
 ‘They left me.’ (PT: IG3-037-A)
- b. mari ambu kunmeliŋgimuriŋnim
 mari ambu kunmel-ni-ŋki-muriŋ=nim
 LANG NEG 3PL.GO.R.IPFV-(U)AUG.S>MIN.O-1INCL.DU.OBL-talk=AUG
 ‘They’re not talking to us.’ (PT: IG3-022-B)

While each lexical stem possesses its own argument structure requirements, this does not necessarily mean that all arguments are realised in any given verb. Argument realisation is affected by the classifier stem with which the lexical stem occurs, as well as the occasional addition of applicative markers. The various combinations and the resulting verbal valencies are discussed in §5.3.3.

5.3.3 Classifier stem transitivity

5.3.3.1 DUAL SUBJECT-marking and transitivity

The form and position of the DUAL SUBJECT marker */-ŋki/~/-ɲ/* (§6.1.1) indicates the formal transitivity value of the classifier stem to which it attaches. The DUAL SUBJECT marker has a consistent form and position with each individual classifier stem (though see below on reciprocals) and this form determines whether a classifier stem is considered TRANSITIVE or INTRANSITIVE. A classifier stem which takes the */-ŋki/* form of the DUAL SUBJECT marker in a post-classifier root position (432) indicates that the classifier stem with which it co-occurs has a preference for occurring in transitive verbs (though STAND CMLX is anomalous in this respect). This type of classifier stem is labelled TRANSITIVE.

- (432) *kad̥i ɲiriŋiŋigurpa wacen jeɲi ɬawur ɲarin*
kadi ɲiriŋ-ŋki-kurp=a wacen jeɲi ɬawur =ɲarin
 1DU.PRO 1NSG.SWING.R.PFV-DU.S-hit=PST dog WEAP tree =INSTR
- ‘Us two hit the dog with a stick.’ (JoN: IG3-036-A)

Classifier stems that take the */-ɲ/* form (433) or take */-ŋki/* in a pre-classifier root position, where it occurs between the SUBJECT marker and the classifier root, (434a), (c.f. (434b)) are labelled INTRANSITIVE. TRANSITIVE and INTRANSITIVE classifier stems are listed in table 5.7 (and were also previously listed in table 5.2 in §5.2).

- (433) *ɲiniŋubaka*
ɲin-ɲ-yubak=a
 1NSG.GO.R.PFV-DU.S.INTR-fall=PST
- ‘Us two fell down.’ (UNK: 196905-DT-DO1009402)

- (434) a. *kadi giriŋgiwera*
kadi kiriŋkiwer=a
 1DU.PRO 1DU.LIE.R=PST
- ‘Us two lay down.’ (UNK: 196905-DT-DO1009402)

- b. *cer giriwera*
cer kiriwer=a
 1PL.PRO 1PL.LIE.R=PST
- ‘We lay down.’ (UNK: 196905-DT-DO1009402)

INTRANSITIVE	TRANSITIVE
SIT	STAND CMLX
STAND	SAY/DO
LIE	HANG
GO	PIERCE
TRAVEL	SWING
PASS	BUMP
	HANDS
	FEET
	MOUTH
	CAUSE
	PUT
	COOK
	HEAT
	TIE
	FOLLOW

Table 5.7: TRANSITIVE and INTRANSITIVE classifier stems, based on DUAL SUBJECT-marking characteristics

This TRANSITIVE/INTRANSITIVE label indicates a tendency only: some classifier stems can occur in both transitive and intransitive verbs; however it seems clear that each classifier stem has a tendency towards occurring in verbs of one transitivity type, i.e. INTRANSITIVE classifier stems tend to occur in intransitive verbs and TRANSITIVE classifier stems in transitive ones. Note that I only refer to prototypical transitive verbs (which take OBJECT-marking) when I use the term ‘transitive’ here. INTRANSITIVE and TRANSITIVE classifier stems can also occur in verbs which are neither prototypically transitive or intransitive. See §5.3.3.2 for details. A similar transitivity distinction based on NSG subject-marking is found in Marrithiyel (Green 1989, pp. 86–88), and like the Marri Ngarr data, the transitivity distinction in Marrithiyel is not absolute. In Marri Ngarr STAND CMLX is an exception to this generalisation of formal transitivity category mapping to actual transitivity of the verb: STAND CMLX is formally TRANSITIVE based on the DUAL SUBJECT-marking criteria but tends to appear in intransitive verbs. STAND CMLX is also clearly related to STAND which is INTRANSITIVE, and two of the DUAL STAND CMLX forms vary in whether they take /-ŋki/ in post-classifier stem or classifier stem-internal position, suggesting that STAND CMLX does not fit into either formal transitivity category neatly.

The only time this formal relationship between DUAL SUBJECT marker and classifier stem is not maintained is in dual participant reciprocal verbs, constructions in which the form of the DUAL SUBJECT marker varies to convey valency information. In these constructions the intransitive form of the DUAL SUBJECT marker, /-ɲ/, is used regardless of whether it co-occurs with a TRANSITIVE or INTRANSITIVE classifier stem. The examples below show normally /-ŋki/-taking classifier stems (435a) - (436a), but in dual reciprocal constructions these classifier stems receive /-ɲ/-marking (435b) - (436b), indicating that these reciprocal constructions are valency-decreasing.

- (435) a. niwɨjɨn ji kudiŋgimelgawɨn
niwɨjɨn ji kudin-ŋki-mel=kawu-ŋ
3DU.PRO DEM.3 3NSG.CAUSE.R.IPFV-DU.S-stare=3.SIT.R.IPFV-DU.S.INTR
‘Those two fellas are looking at him.’ (JN: IG3-014-A)
- b. gudɨjɨmelgawɨn maɟicuk
kudin-ŋ-mel=kawu-ŋ ma=cicuk
3NSG.CAUSE.R.IPFV-DU.S.INTR-stare=3.SIT.R.IPFV-DU.S.INTR MASC=two
‘Two people are looking at each other.’ (ET: 20150714-JM)
- (436) a. kaɟi ŋilingiteteɟa
kadi ŋili-ŋki-zaɟ~zaɟ=a
1DU.PRO 1NSG.BUMP.R.PFV-DU.S-REDUP~hit.PL=PST
‘Us two beat him up.’ (PT: IG3-032-A)
- b. gulɨteteangigunɨn
kuli-ŋ-zaɟ~zaɟ-aŋki=kun-ŋ
3SG.BUMP.R.IPFV-DU.S.INTR-REDUP~hit.PL-RECIP=3NSG.GO.R.IPFV-DU.S.INTR
‘Those two are punching each other.’ (JJ: RN-003-A)

Two of the classifier stems, TRAVEL and HEAT, do not possess dual forms. TRAVEL is analysed as an INTRANSITIVE classifier stem based on its consistent appearance in monovalent main verbs which never co-occur with a non-subject pronominal marker. HEAT is analysed as a TRANSITIVE verb based on its co-occurrence with OBJECT-marking.

This formal INTRANSITIVE/TRANSITIVE classifier stem distinction indicated by variation in DUAL SUBJECT-marking form and position is further explored in §5.3.3.2 in relation to the individual characteristics of the two classifier stem types and their role in determining overall verbal valency.

5.3.3.2 INTRANSITIVE and TRANSITIVE classifier stems

TRANSITIVE classifiers (excluding PIERCE (§5.4.2.1) and SAY/DO (§5.4.1)) always co-occur with a lexical stem to form bipartite verbs, i.e. they never function as simple verbs. Most TRANSITIVE classifier stems co-occur regularly with lexical stems that require an agent and patient and these bipartite verbs are marked by OBJECT (when not 3SG). This combination of a TRANSITIVE classifier stem and OBJECT-marking on a verb indicates a prototypical transitive construction in the language. Some examples of TRANSITIVE classifier stems in transitive verbs are given below in (437) - (442).

- (437) azadima ϕ aliŋditiipa jeŋi
a=zadima pali-ŋ-zip~zip=a jeŋi
ANIM-snake 3SG.BUMP.R.PFV-1SG.O-REDUP~bite=PST today
‘The snake bit me today.’ (HK: 1972-MW-M02004364B)
- (438) ϕ iniŋdipnamandi
piniŋ-ŋ-zip=nim=andi
2NSG.SWING.R.IPFV-1SG.O-spear=AUG=APPR
‘You all might spear me.’ (JN: IG3-014-A)
- (439) jin ŋadimbiŋ ϕ a ϕ uja
jin ŋadi-mbir- β adu=ja
1SG.PRO 1SG.CAUSE.R.PFV-3PL.O-push=PST
‘I pushed them all over.’ (JN: IG3-013-A)
- (440) warija ŋaliŋa adiŋbundibacwari
warija ŋaliŋa ar-ŋ-pundibac=wuri
SEQ ? 2SG.HANDS.IRR-1SG.O-take=TOWARDS
‘It’s ok, you can take me with you.’
(RT: 20050521-MC-Cycad-Curlew-Sugarglider)
- (441) katidi β acbackawani
kadi-didi- β ac~ β ac=kawu=ni
3SG.FEET.IRR-2DU.O-REDUP~kick=3SG.SIT.R.IPFV=FUT
‘He’s going to kick you two fellas.’ (JN: IG3-010-B: 33)
- (442) naŋ ji kumunwidi ϕ aratandi niwiŋ ji
naŋ ji kumun-widi- β arat=andi niwiŋ ji
3SG.M.PRO DEM.3 3SG.PIERCE.R.IPFV-3DU.O-grab=APPR 3DU.PRO DEM.3
‘He might grab those two.’ (PT: IG3-021-B: 67)

Three TRANSITIVE classifier stems are never observed co-occurring in a verb with OBJECT, functioning only in verbs which (presumably) take 3SG objects. These three are COOK, MOUTH and PUT. The examples in (443) - (445) below show these classifier stems co-occurring in constructions which also involve external NPs analysed as 3SG objects.

- (443) amumu ɲeβiβiɿ na ceɲʝi
a=mumu ɲe-biɿ~biɿ na ceɲci
ANIM=turkey 2SG.COOK.IRR-REDUP~cook LOC fire
‘Cook the turkey on the fire.’ (HK: 1972-MW-M02004365A: 17)

- (444) aɲaɲmiɿ ɲawaɖara cuja
a=ɲaɲmiɿ ɲa-wudar=a cuja
ANIM=fish 1SG.MOUTH.R.PFV-eat=PST yesterday
‘I ate some fish yesterday.’ (RK: 197207-MW-M02004363A: 95)

- (445) kaɖi ɲata kiringingiɖatkariɲ
kadi ɲata kirinkin-ɲki-tat=kari-ɲ
1DU.PRO house 1NSG.PUT.R.IPFV-DU.S-put.down=1NSG.SIT.R.IPFV-DU.S.INTR
‘Us two are building a house.’ (JoN: IG3-032-B)

TRANSITIVE classifier stems do not generally co-occur with OBLIQUE-marking (in bivalent verbs). Two exceptions are verbs which are constructed slightly differently to a standard transitive/bivalent verb. One is the verb ‘believe’, a psych verb which is a lexicalised construction involving a TRANSITIVE classifier stem co-occurring with OBLIQUE-marking, to which a nominal classifier is preposed (446);⁷⁷ the other is the verb ‘think’, which also involves a TRANSITIVE classifier stem and the OBLIQUE marker (447). This verb is unusual in that it is constructed in a similar way to an impersonal verb, with a dummy 3SG SUBJECT; however it uses OBLIQUE-marking rather than OBJECT to mark the experiencer (447).⁷⁸

- (446) jin ga mari ɲindirbac
jin =ka mari ɲi-ndir-bac
1SG.PRO =TOP LANG 1SG.HANDS.R.IPFV-2PL.OBL-hold
‘I believe you all. [Lit: I hold words for you (PLURAL)]’ (JoN: IG3-026-B)

77. An equivalent lexicalised construction with OBJECT-marking is documented in §5.3.1.

78. It may be the case that impersonals can also be formed with OBLIQUE if the lexical stem normally takes a non-patient argument: a verb comprised of the same classifier stem and lexical stem combination translatable as ‘talk’ takes OBLIQUE-marking in (i).

- (i) jin naɲ ma ji ɲirzɟjengikaɲija
jin naɲ ma= ji ɲir-ni-jenki=kaɲi=ja
1SG.PRO 3SG.M.PRO MASC= DEM.3 1SG.HANDS.R.IPFV-3SG.M.OBL-talk=1SG.SIT.R.IPFV=PST
‘I was talking to him before.’ (PT: IG3-038-B)

- (450) *naŋʝi puja wuri tʰaŋinβap*
naŋci puja =wuri za-ŋin-βap
 THING string =towards 2SG.MOUTH.IRR-1SG.OBL-transfer
 ‘Give me some string.’ (RK: 1972-MW-M02004365A)

- (451) *palinŋeritakwuri cibaki*
pal-ŋin-ceritak=wuri ciβaki
 2SG.BUMP.IRR-1SG.OBL-ignite=TOWARDS tobacco
 ‘You light a cigarette for me.’ (JoN: IG3-037-A)

A small number of TRANSITIVE classifier stems also occur in intransitive verbs.

- (452) *naŋ ɲaβarupa*
naŋ ɲa-βarup=a
 3SG.M.PRO 3SG.COOK.R.PFV-run=PST
 ‘He was running away.’ (RK: 1972-MW-M02004364A)

- (453) *jin ɲiciŋani ɲaɬarini βiŋi*
jin ɲiciŋani ɲa-ɬari=ni βiŋi
 1SG.PRO tomorrow 1SG.MOUTH.IRR-go=FUT βiŋi
 ‘I’m gonna go tomorrow.’ (PT: IG3-038-A)

- (454) *kaɬi kiringinkigatkiriŋgiwer*
kadi kirinkin-ŋki-yat=kiriŋkiwer
 1DU.PRO 1NSG.PUT.R.IPFV-DU.S-lie=1DU.LIE.R.IPFV
 ‘Us two (EXCL) are lying down.’ (JoN: IG3-036-A: 29)

The SAY/DO classifier stem is unusual for a TRANSITIVE classifier stem. It never co-occurs with OBJECT-marking and exhibits unusual characteristics including primarily functioning as a simple verb (normally a function of INTRANSITIVE classifier stems) and participating in a type of bipartite verb where the lexical stem does not occur in its normal position but is instead preposed to the classifier stem (§5.4.1). For these reasons, it is considered anomalous as a TRANSITIVE classifier stem but included in this category based on the DUAL SUBJECT-marking diagnostic described in §5.3.3.1.

Six classifier stems (SIT, STAND, LIE, GO, TRAVEL and PASS) are INTRANSITIVE based on DUAL SUBJECT-marking characteristics.⁸⁰ With the exception of PASS, these INTRANSITIVE classifier stems are often used as simple verbs in the corpus. As simple verbs, they are the only predicative element in the verb, and as such provide all the argument structure information to the verb. In this simple verb function, INTRANSITIVE classifier stems are almost always only pronominally marked for SUBJECT and as such, analysed as intransitive verbs. Examples of INTRANSITIVE classifier stems in simple verb function are given below in (455) - (459).

- (455) jin gaŋi na wuji
 jin kaŋi na wuji
 1SG.PRO 1SG.SIT.R LOC camp
 ‘I’m sitting in camp.’ (JN: IG3-007-A: 27)

- (456) jin ŋulijmudija kinijeŋa
 jin ŋuli-ŋ-mudi=a kinijaŋ=a
 1SG.PRO 1SG.BUMP.R.PFV-2SG.O-see=PST 2SG.STAND=PST
 ‘I saw you standing up there.’ (PT: IG3-019-B: 43)

- (457) annimbir guŋguwernim naŋŋi maŋir
 annimbir kuŋkiwer=nim naŋci maŋir
 three 3NSG.LIE.R=AUG THING leaf
 ‘Three leaves are lying there.’ (ET: 20150627-JM-03)

- (458) niŋ ga cuja ɸindiza ginina
 niŋ =ka cuja βindi=za kinin=a
 2SG.PRO =TOP yesterday WHERE=ALL 2SG.GO.R=PST
 ‘Where did you go yesterday?’ (JoN: IG3-019-B: 15)

- (459) nin mundak kiŋera
 niŋ mundak kiŋer=a
 2SG.PRO previously 2SG.TRAVEL.R=PST
 ‘You went long time ago.’ (JN: IG3-006-A: 12)

80. TRAVEL is exceptional in that it has a reduced paradigm without DUAL forms; it is instead analysed as INTRANSITIVE based on its consistent appearance in intransitive verbs (§5.3.3.1).

The only classifier stem which can be marked with a second pronominal marker shows variation in whether it takes OBLIQUE (460a), or ADJUNCT marking (460b).

- (460) a. wariŋinwuri
wari-ŋin=wuri
2SG.GO.IRR-1SG.OBL=TOWARDS
‘Come to me.’ (HK: 1972-MW-M02004365B)
- b. wariŋinnaliwuri kanijer
wari-ŋinali=wuri kanijer
2SG.GO.IRR-1SG.ADJ=TOWARDS visit
‘You come and visit me.’ (PT: IG3-035-B)

Characteristics of bipartite verbs containing INTRANSITIVE classifier stems are more varied than INTRANSITIVE classifier stems in simple verb function. INTRANSITIVE classifier stems can combine with 1-place lexical stems to form intransitive verbs (461) - (462).

- (461) naŋ maji wanigubaka
naŋ ma=ji wani-yubak=a
3SG.M.PRO MASC=DEM.3 3SG.GO.R.PFV-fall=PST
‘He fell down.’ (PT: IG3-025-B)
- (462) ambu kaŋjibutandi purbur
ambu kaŋji-jibut=andi burbur
NEG 1SG.SIT.R-swim=APPR cold
‘I don’t want to swim, it’s cold’ (JoN: IG3-023-A)

INTRANSITIVE classifier stems regularly co-occur with 2-place lexical stems which specify for a non-subject argument which is not a patient, as indicated by OBLIQUE-marking (463) - (464). This combination forms bivalent verbs, while both the transitivity value of the classifier stem and the presence of the OBLIQUE marker signal that this type of construction is not prototypically transitive.

- (463) naŋ kaŋinibicmi
naŋ kaŋi-ni-bicmi
3SG.M.PRO 1SG.SIT.R-3SG.M.OBL-watch
‘I was looking at him.’ (JN: IG3-012-A)

(464) mari ambu kunmelningimuriṅnim
 mari ambu kunmel-ni-ṅki-muriṅ=nim
 LANG NEG 3PL.GO.R-(U)AUG.S>MIN.O-1INCL.OBL-talk=AUG

‘They’re not talking to us.’ (PT: IG3-022-B: 1)

Other INTRANSITIVE classifier stem and 2-place lexical stem combinations form anticausatives. While the lexical stems in (463) - (464) above specify for non-patient arguments, in the anticausative constructions below the lexical stems specify for an agent and a patient, and when they pair with an INTRANSITIVE classifier stem only the patient argument is realised. In the (a) examples in (465) - (466) below, the pairings of 2-place lexical stems and TRANSITIVE classifier stems result in transitive verbs. In contrast, while the (b) examples contain the same 2-place lexical stems, they combine with INTRANSITIVE classifier stems and the resulting construction is intransitive with an unaccusative subject. Similar valence-changing strategies are also found in other Western, and Southern Daly language (Reid 2000; Seiss and Nordlinger 2010; Green 1989, ch. 6).

(465) a. ṅulukata puja
 ṅuli-kat=a puja
 1SG.BUMP(TR).R.PFV-cut=PST rope

‘I cut the rope.’ (JoN: IG3-035-A: 12)

b. puja wanikata
 puja wani-kat=a
 rope 3SG.GO(INTR).R.PFV-cut=PST

‘That rope broke.’ (PT: IG3-036-B: 33)

(466) a. awu ṅijṅzuzupa
 awu ṅijṅ-zup~zup=a
 ANIM 1SG.SWING(TR).R.PFV-REDUP~skin=PST

‘I skinned an animal.’ (JoN: IG3-025-A)

b. ʔadiβi wanizuzupa pundi naṅ
 zadiβi wani-zup~zup=a pundi naṅ
 skin 3SG.GO(INTR).R.PFV-REDUP~skin=PST hand 3SG.M.PRO

‘That skin came off his hand.’ (PT: IG3-025-A)

Another type of combination of INTRANSITIVE classifier stem and bivalent lexical stem which specifies for agent and patient results in a transitive verb. This type of construction is marked by OBJECT and is rare in the corpus, with only a handful of classifier stem - lexical stem combinations found which take OBJECT-marking (467). Other (presumably) transitive verbs occur which contain INTRANSITIVE classifier stems with 3SG patients (i.e. are pronominally unmarked for OBJECT) (468).

(467) waniŋpira
 wani-ŋ-pir=a
 3SG.GO.R.PFV-1SG.O-leave=PST
 ‘He left me.’ (PT: IG3-037-A: 50)

(468) ajilirki kaŋiŋimburi jeŋi
 a=jilirki kaŋi-cimburi jeŋi
 ANIM=meat 1SG.SIT.R-eat today
 ‘I’m eating meat now.’ (HK: 1972-MW-M02004364B: 12)

For at least some of these constructions, the reason for the use of an INTRANSITIVE classifier stem may be due to another characteristic of INTRANSITIVE classifier stems: most INTRANSITIVE classifier stems are inherently atelic (§5.4.1) and the INTRANSITIVE classifier stem may be used in these constructions to highlight the atelicity of the event. In §7.1.3 I show that serial classifiers mark imperfective aspect. Serial classifiers commonly co-occur with TRANSITIVE classifier stems to mark imperfectivity, but almost never co-occur with INTRANSITIVE classifier stems. The semantically equivalent imperfective constructions in (469) show the serial classifier co-occurring with the TRANSITIVE BUMP classifier stem in (469a), while the INTRANSITIVE SIT classifier stem occurs in the transitive verb in (469b), marking imperfectivity without the presence of the serial classifier.

(469) a. jeri karila ŋiletekanija
 jeri karila ŋil-zaŋ~zaŋ=kaŋi=ja
 WEAP rock 1SG.BUMP.R.IPFV-REDUP~hit.PL=1SG.SIT.R.IPFV=PST
 ‘I was beating him up with a rock.’ (PT: IG3-032-A)

b. jin kaŋimbirtaŋa
 jin kaŋi-mbir-zaŋ~zaŋ=a
 1SG.PRO 1SG.SIT.R-3PL.O-REDUP~hit.PL=PST
 ‘I was beating that mob up.’ (PT: IG3-037-A)

The use of intransitive inflecting verbs to mark aspectual meanings in transitive verbs is also found in other Australian languages. McGregor (2002, p. 161) notes that a ‘sit, be’ inflecting verb generally marks verbs which are intransitive and atelic, but that the valency feature of this element can be neutralised and it can combine with bivalent coverbs to express ‘derived continuous’ verbs in Nyulnyulan, Jarrakan and Jaminjungan languages. In Emmi, dynamic intransitive classifier stems can co-occur with bivalent lexical stems ‘which are seen as ongoing actions extended in time’ (Ford 1998, p. 190). Marking of imperfectivity would account for the imperfective transitive construction in (468) above which contains an INTRANSITIVE classifier stem, but does not account for the perfective construction in (467). The reason for the use of an INTRANSITIVE classifier stem in

this construction could potentially be to encode a change of state/location meaning (see discussion in §5.4.1).

The transitivity distinction in classifier stems can assist in distinguishing between SUBJECT and OBJECT incorporation. In (470) below, the verb in each example is identical except for the classifier stem. In (470a) the TRANSITIVE classifier stem marks the verb as transitive and, therefore, the incorporated body part must be associated with the OBJECT (because transitive subject incorporation is disallowed (§8.1.5)), while in (470b) the INTRANSITIVE classifier stem signals that the verb is intransitive and, therefore, the incorporated body part must associate with the unaccusative subject.

- (470) a. *naŋ ji arimenbuɕa*
naŋ ji ari-men-βuɕ=a
 3SG.M.PRO DEM.3 3SG.HANDS(TR).R.PFV-arm-break=PST
 ‘He broke the (tree) branch.’ (JN: IG3-010-A)
- b. *naŋ ji wanimenβuɕa*
naŋ ji wani-men-βuɕ=a
 3SG.M.PRO DEM.3 3SG.GO(INTR).R.PFV-arm-break=PST
 ‘He broke his arm.’ (JN: IG3-012-A)

A transitivity distinction in classifier stems is also seen in a comparison between applicative constructions and their non-derived counterparts. APPLICATIVE markers introduce an OBJECT argument to the verb (see §8.2 for a description of these markers). In some examples in the corpus, we can observe a change in classifier stem which is dependent on the presence or absence of an APPLICATIVE. While in (471a) we see a combination of an INTRANSITIVE classifier stem and 1-place lexical stem which forms an intransitive verb, in (471b) in which the inclusion of an APPLICATIVE marker introduces an object, the classifier stem is instead TRANSITIVE, signalling a (derived) transitive verb.

- (471) a. *ŋaniyubaka na ɕawur wajini wuri*
ŋani-yubak=a na ɕawur wajini =wuri
 1SG.GO(INTR).R.PFV-fall=PST LOC tree on.top =TOWARDS
 ‘I fell from the top of the tree.’ (HK: 1972-MW-M02004364A: 29)
- b. *dakta ɕaŋmugubaka*
dakta ɕa-ŋ-mu-yubak=a
 doctor 3SG.MOUTH(TR).R.PFV-1SG.O-APPL-fall=PST
 ‘The doctor made me stop (smoking).’ (ET: 20150714-JM: 9)

5.3.4 Summary

The previous sections have shown that argument structure information can be signalled by various morphological devices on the verb. SUBJECT and OBJECT mark core argu-

ments, while *OBLIQUE* can mark oblique arguments, but can also be used to encode adjuncts. Classifier stems are *INTRANSITIVE* or *TRANSITIVE* based on the *DUAL SUBJECT* markers they take. The combination of *OBJECT*-marking and a *TRANSITIVE* classifier stem indicates a prototypically transitive verb. *INTRANSITIVE* classifier stems are always intransitive when they function as simple verbs and generally also occur in intransitive bipartite verbs, while *TRANSITIVE* classifier stems (except *PIERCE* and *SAY/DO*) always occur in bipartite verbs and these are generally transitive constructions. Lexical stems also have their own inherent argument structure, specifying both number of arguments and their thematic roles. Generally, a 2-place lexical stem combines with a *TRANSITIVE* classifier stem; the number of arguments of both of these predicational elements match and the combination forms a transitive verb. Likewise, *INTRANSITIVE* classifier stems can combine with 1-place lexical stems to form intransitive verbs. Other times, an *INTRANSITIVE* classifier stem and 2-place lexical stem combine to render an *OBLIQUE*-marked verb. The *OBLIQUE*-marking signals that this type of verb is bivalent but not transitive. Occasionally, an *INTRANSITIVE* classifier stem pairs with a 2-place lexical stem (which specifies for an agent and a patient) and the *INTRANSITIVE* classifier stem essentially overrides the argument structure value of the lexical stem; the combination resulting in an anticausative construction where only the patient argument is realised. More rarely, an *INTRANSITIVE* classifier stem and 2-place lexical stem combine to render a transitive verb. The *INTRANSITIVE* classifier stem may sometimes contribute imperfectivity information in this type of construction. A small number of *TRANSITIVE* classifier stems are also observed combining with 1-place lexical stems in intransitive verbs. In these constructions the classifier stem does not appear to contribute transitivity information. Incorporated body parts can also be used to identify core arguments, especially when a patient is 3SG. When a syntactically incorporated body part co-occurs with a *TRANSITIVE* classifier stem, this signals that a 3SG object is present in the clause (but unmarked pronominally), i.e. that the verb is transitive. More rarely, an incorporated body part can co-occur with an *INTRANSITIVE* classifier stem and this signals intransitive subject incorporation and, therefore, an intransitive verb. *APPLICATIVE* markers are used infrequently in the corpus to increase the valency of the verb. They appear in combination with 1-place lexical stems and introduce an *OBJECT*-marked argument, forming a (derived) transitive verb. *TRANSITIVE* classifier stems occur in these constructions in accordance with the transitivity value of the verb.

5.4 Classifier stem semantics

In languages of northern Australia which exhibit the type of complex predicate often termed a ‘coverb construction’ (Amberber, B. Baker, and Harvey 2007, and also see discussion in §5.1), the inflecting and uninflecting verbs generally both contribute semantic information to the predicate (McGregor 2002, pp. 101–106). The uninflecting verb usually provides the core verbal semantic information while the inflecting verb generally classifies this verbal meaning into some kind of event type. In these languages with verb classification systems we see overwhelming tendencies for the inclusion of the same basic or general meanings expressed through the inflecting verb (McGregor 2002, p. 104). According to Bower (2014, p. 273) this is also true in a broader crosslinguistic sense. McGregor (2002) undertakes a comprehensive study of systems of verb classification in Australian languages. In examining the characteristics of verbal semantic classification, he distils the meanings of the most widespread inflecting verbs down

to seven basic semantic domains containing fourteen inflecting verbs: *speech*: SAY/DO, *stance*: SIT/BE, STAND, *motion*: GO, FALL, BECOME, *induced motion*: CARRY, THROW, PUT, *acquisition*: CATCH, GET, GIVE, *violence*: HIT, POKE and *perception*: SEE (McGregor 2002, p. 153). These meanings expressed through inflecting verbs in verb classification systems also generally occur with high frequency and tend to combine with a large number of uninflecting verbs (McGregor 2002, p. 152). Bowerman (2014, p. 273) suggests that the reason for this recurrence of these meanings in verb classifiers across languages may be the general semantics of these meanings as well as their high frequency of use, making these elements suitable candidates for metaphoric extension and other types of new meaning creation.

Some of the classifier stems in the Marri Ngarr system fit into the basic semantic domains proposed in McGregor (2002). Marri Ngarr has a classifier stem for *speech*: SAY/DO, several *stance* and *motion* classifier stems with SIT, STAND, LIE, and HANG functioning as *stance* classifier stems while GO, TRAVEL and PASS function as *motion* classifier stems. The PUT classifier stem could be included in the *induced motion* category. Marri Ngarr also has a PIERCE classifier stem which appears to be semantically similar to POKE in the *violence* category (McGregor 2002, pp. 168–169). However, there are no classifier stems with semantics of acquisition or perception. Instead, what we find in Marri Ngarr and the neighbouring Western and Southern Daly languages is a strong emphasis on instrumental classifier stems. These classifier stems are selected based on the type of instrument used to carry out the event. Three of these instrumental classifier stems are selected based on the body part used to carry out the event: HANDS, FEET and MOUTH, while another three: PIERCE, SWING and BUMP are selected based on the characteristics of the instrument and its usage in the event, categorised by shape, the type of contact the instrument makes with an object, and the trajectory it follows in order to carry out an event. In addition, Marri Ngarr has: (i) another productive classifier stem, CAUSE, which seems to be used as a general classifier stem in transitive verbs where instrumental information is not in focus; (ii) two classifier stems concerned with heating or cooking, HEAT and COOK; and (iii) two marginally used classifier stems, TIE and FOLLOW, which co-occur with only a handful of lexical stems in the corpus to render meanings associated with tying something and following someone/thing. The Marri Ngarr verbal classifier system is semantically similar to the equivalent systems in Marrithiyel and Ngan'gitjemerri and the research on shape/contact instrumental classifiers in Ngan'gitjemerri (Reid 2011, ch.4) and Marrithiyel (Green 1989, ch.6) in particular have influenced my analysis of the equivalent classifier stems in Marri Ngarr (§5.4.2).

As we will see in the following sections, all classifier stems appear to have a core meaning which is fundamentally concerned with some kind of physical action. Aside from these physical action semantics, which are generally relatively transparent, when classifier stems appear on verbs which do not involve physical actions the semantic input of a particular classifier stem is often unclear. Generally I assume some kind of metaphoric extension of the basic physical action meaning; however I lack evidence to confirm this as a generalisation. In (472) the state of 'believing' is expressed as the subject 'holding words (for someone)', and this literal meaning makes the choice of the HANDS classifier stem transparent. However, usually the reasons for the choice of classifier stem are obscured in verbs which do not denote events of physical action. For example in the impersonal construction in (473) the lexical stem and incorporated body part seem relevant to the lexical semantics of 'having a headache'; however it is not clear why the HANDS

classifier stem is used to contribute to this meaning.

- (472) *muli ji mari ɲirinbac*
muli= ji mari ɲir-ɲ-bac
FEM= DEM.3 LANG 1SG.HANDS.R.IPFV-3SG.F.OBL-hold
'I believe her.' (JoN: IG3-026-B)

- (473) *kariɲmici*
kar-ɲ-mi-ci
3SG.HANDS.R.IPFV-1SG.O-eye-tire
'I've got a headache.' (ET: 20150627-JM-ET-02)

The following sections focus on the semantic contribution of the classifier stem to the verb. Speech, stance and motion classifier stems exhibit similar characteristics in terms of their functions and are discussed together in §5.4.1. Classifier stems which classify an event based on the instrument used to carry it out are discussed in §5.4.2. The productive CAUSE classifier stem is described in §5.4.3 and a range of more marginally used classifier stems are outlined in §5.4.4 - §5.4.6.

5.4.1 Speech, stance and motion classifier stems

Marri Ngarr has a classifier stem which expresses events of speech, or general 'doing' events: SAY/DO, five stance classifier stems which describe the event as the stance of an argument (usually the subject), or describe an event where an argument assumes a particular stance while involved in the event: SIT, STAND, STAND COMPLEX (CMLPX), LIE and HANG, and three classifier stems which classify events with respect to their motion: GO, TRAVEL and PASS.

All of these classifier stems except for STAND CMLPX and PASS can form simple verbs. Many of these simple verb classifier stems also share other characteristics including being INTRANSITIVE (a category which correlates with a generally tendency to occur in intransitive verbs - see §5.3.3.1), occurring as serial classifiers to encode imperfective aspect (§7.1.3) and possessing the ability to function as a copula in some clause types (§9.3). These classifier stems are glossed according to the lexical semantics they express when they occur in simple verb function, i.e. denoting events of basic body stances/postures or motions of an argument, or events of speech/doing. Some examples of simple verb function are given in (474) to (480) below.

- (474) *kaɲi zadi na mutubak*
kaɲi zadi na mutubak
1SG.SIT.R back LOC motorbike
'I'm sitting on the back of a motorbike.' (JoN: IG3-021-B)

(475) niṅ ga cipe ni kinijaṅ ku wu
 niṅ =ka cipe =ni kinijaṅ ku =wu
 2SG.PRO =TOP WHAT =DAT 2SG.STAND.R DEM.2 =WU

‘What are you standing up there for?’ (PTIG3-019-B)

(476) niṅ kimini ṅiniḅera
 niṅ kimini ṅiniwer=a
 2SG.PRO DEON 2SG.LIE.IRR=PST

‘You should lie down.’ (JN: IG3-012-A)

(477) awu kiṅṅi na θawur
 awu kiṅci na ṭawur
 ANIM 3SG.HANG.R.IPFV LOC tree

‘It’s hanging up in the tree.’ (PT: IG3-016-B)

(478) azamu ni kumbuna ga
 a=zamu =ni kumbun=a =ka
 ANIM=long-necked.turtle =DAT 1INCL.DU.GO.R=PST =TOP

‘We went (looking) for fresh water turtle.’ (CM: 1982-Tree-Dreaming)

(479) niṅ ṅiṅniewuri φaliṅmuḍini
 niṅ ṅiṅer=ni=wuri pal-ṅ-mudi=ni
 2SG.PRO 2SG.TRAVEL.IRR=FUT=TOWARDS 2SG.BUMP.IRR-1SG.O-see=FUT

‘You’re going to come and see me.’ (JN: IG3-006-B)

(480) aṅar naṅṅi ṅuṅcukni meja
 aṅar naṅci ṅu-cuk~cuk=ni me=ja
 PROX THING 1SG.PUT.R.PFV-REDUP~leave=FUT 3SG.SAY/DO.R.PFV=PST
 malerin
 malerin
 ancestor

‘This is the place I’m gonna leave my things, the ancestor said.’
 (CM: 1982-Tree-Dreaming)

The stance classifier stems that can occur in simple verbs (SIT, STAND, LIE and HANG) denote static events which are also inherently atelic, i.e. events that have no endpoint and are considered to continue for a period of time. An atelic meaning is common amongst stance verbs cross-linguistically, and stance verbs are a source of development for imperfective markers in some languages (Newman 2002, pp. 12–17). The simple verb motion classifier stems GO and TRAVEL can more freely occur in atelic or telic verbs and as opposed to the stance classifier stems which denote static, ongoing postures, the motion classifier stems can denote dynamic events. Reid (2002, pp. 243–245, 251–252) describes similar functions for the equivalent stance and motion classifier stems in Ngan’gitjemerri, also noting that in bipartite verbs only motion classifier stems can also co-occur with dynamic lexical stems that have ‘change of location’, ‘change of state’ or ‘change of posture’ meanings.⁸¹

In accordance with their function of encoding stance characteristics, in bipartite verbs SIT, STAND, LIE and HANG, as well as STAND CMPLX, tend to classify verbs denoting events conducted with the participant in a stationary position in a particular stance. (481) - (482) below contain example pairs involving the same lexical stem which contrast in classifier stem based on the particular stance of the subject carrying out the event.

(481) a. η awu β i β ini
 η awu- β i \sim β i=ni
 1SG.SIT.IRR-REDUP \sim smoke=FUT
 ‘I wanna sit down and smoke.’ (JN: IG3-013-B)

b. na η kinkingat ce β i β i
 na η kinkin-yat ce- β i \sim β i
 3SG.M.PRO 3SG.PUT.R.IPFV-lie 3SG.LIE.R-REDUP \sim smoke
 ‘He’s lying down having a smoke.’ (PT: IG3-031-B)

(482) a. cipeni na η kazu ji wu
 cipe=ni na η ka-azu ji =wu
 WHAT=DAT 3SG.M.PRO 3SG.STAND.CMPLX.R.IPFV-laugh DEM.3 =WU
 ‘Why is he laughing (while standing up)?’
 (HK: 1972-MW-M02004364B)

b. cipeni kuwazu ji wu
 cipe=ni ku-azu ji =wu
 WHAT=DAT 3SG.SIT.R-laugh DEM.3 =WU
 ‘Why is he laughing (while sitting down)?’
 (HK: 1972-MW-M02004364B)

81. Stance verbs can also co-occur with these dynamic lexical stems in Ngan’gitjemerri, but only to convey a specific ‘resultant state’ interpretation (Reid 2002, pp. 251–252).

(487) **miji** **kanjimburi**
miji **kaŋi-cimburi**
PLANT 1SG.SIT.R-eat

‘I’m eating vegetables.’

(HK: 1972-MW-M02004364B)

It is unclear why some transitive verbs are formed with GO and PASS; however these constructions generally involve some sort of change of location of the subject (488) - (489), suggesting that the change of state/location/posture use of motion classifier stems found for Ngan’gitjemerri (Reid 2002) is also relevant in these transitive constructions involving motion classifier stems in Marri Ngarr.

(488) **ŋunipirni** **βini**
ŋun-ŋ-pir=ni **βini**
1SG.GO.IRR-2SG.O-leave=FUT **now**

‘I’m going to leave you now.’

(JN: IG3-012-B)

(489) **panmeliŋparata**
panmeli-ŋ-βarat=a
3PL.PASS.R.PFV-1SG.O-pass=PST

‘They went past me.’

(PT: IG3-033-B: 16)

STAND and STAND CMLX are clearly related (both in form and semantics) but are analysed as separate classifier stems. This is based on: (i) form - STAND forms are all /ŋ/-final, while this /ŋ/ is absent from STAND CMLX forms; (ii) verb type - STAND only occurs in simple verbs, while STAND CMLX is only present in bipartite verbs; (iii) TAM distinctions - STAND only distinguishes REALIS/IRREALIS, while STAND CMLX also possesses the perfectivity distinction in the realis, i.e. REALIS IMPERFECTIVE/REALIS PERFECTIVE and (iv) DUAL SUBJECT marker position - in STAND DUAL forms, the DUAL SUBJECT marker is positioned internally in the classifier stem between the SUBJECT marker and the classifier root, while in STAND CMLX the DUAL SUBJECT marker follows the classifier stem, though two STAND CMLX forms exhibit variation in the position of the DUAL SUBJECT marker. See tables A.2 and A.3 in Appendix A for comparison of the forms of these classifier stems. The position of the DUAL SUBJECT marker in relation to STAND CMLX categorises it as a TRANSITIVE classifier stem; however it is anomalous in this respect as it tends to occur in intransitive verbs (§5.3.3.1).

The GO classifier stem has similar characteristics to STAND and STAND CMLX in that it only contrasts REALIS and IRREALIS TAM categories in simple verbs, while in bipartite verbs it has the perfectivity distinction between REALIS IMPERFECTIVE and REALIS PERFECTIVE; however in contrast to STAND and STAND CMLX, GO forms are identical across simple and bipartite verbs. Further, the form and position of the DUAL SUBJECT marker remains consistent across verb type. Therefore, I consider there to be only one GO classifier stem, noting that its REALIS PERFECTIVE forms are only used in bipartite verbs (see

table A.6 in Appendix A for the forms of the GO classifier stem). As Reid (2002, pp. 243, 253) notes for Ngan'gitjemmerri as the classifier stems that can appear in simple intransitive verbs are inherently atelic, they cannot be inflected for perfective aspect, but when these same classifier stems appear in complex verbs perfective marking is permitted. This same lack of perfectivity distinction is found for SIT, STAND, LIE and TRAVEL, in both simple and bipartite constructions (§7.1).

The TRAVEL classifier stem has a reduced paradigm containing just a REALIS/IRREALIS TAM distinction and minimal (1INCL.DU, 1SG, 2SG AND 3SG) forms. It is only used as a simple verb in the corpus. Based on formal similarities it is probably formally derived from GO, with the addition of the form /jer/ which possibly functioned historically as a lexical stem (there is no synchronic evidence for a lexical stem such as this in other parts of the corpus). While most forms in the paradigm could alternatively be analysed as a sequence of the GO classifier stem and a hypothesized lexical stem /jer/, the 2SG.TRAVEL.IRR and 3SG.TRAVEL.R forms cannot be derived from the equivalent GO forms (see tables A.6 and A.7 in Appendix §A for comparison of the forms of these two classifier stems). Semantically TRAVEL is very similar to GO, with both classifier stems being used for events of moving from one location to another. As illustrated in (490) - (491), TRAVEL and GO are often used interchangeably to express basic events of 'going' or 'travelling'. While this is the case, TRAVEL seems to be used more (with SG or 1INCL.DU subjects) when enquiring about someone's plans (490a) or when the travel is purposeful, i.e. when there is a focus on the destination (492) or reason for the travel. While TRAVEL is almost always found marking human subjects in the corpus, there are no restrictions against using it with an inanimate subject which is moving (493). Having two classifier stems of motion is uncommon in the Australian context but is a feature of Daly languages (McGregor 2002, p. 163).

- (490) a. pindi zamin kinijer
 βindi =zamin kinijer
 WHERE =AWAY 2SG.TRAVEL.R
 'Where are you going?' (HK: 197207-MW-M02004363A)

- b. pindi zamin ginin
 βindi =zamin kinin
 WHERE =AWAY 2SG.GO.R
 'Where are you going?' (RK: 1972-MW-M02004365A)

- (491) a. jin ŋuperni
 jin ŋuper=ni
 1SG.PRO 1SG.TRAVEL.IRR=FUT
 'I'm going to go.' (JN: IG3-008-B)

b. **nicijani** **ɲunni**
 nicijani **ɲun=ni**
 tomorrow **1SG.GO.IRR=FUT**

‘I’m going to go tomorrow.’

(UNK: 196905-DT-DO1009402)

(492) **ɲijera** **cindi**
ɲijer=a **cindi**
1SG.TRAVEL.R=PST Thindi

‘I went to Thindi.’

(RK: 1972-MW-M02004364B)

(493) **ɸereri** **wulkirim** **kuperwuri**
 peri ari **wulkirim** **kuper=wuri**
 foot DEM.1 blood **3SG.TRAVEL.R=TOWARDS**

‘Blood’s coming out of my foot.’

(JN: IG3-012-B)

HANG is distinct from other simple verb classifier stems except SAY/DO and PIERCE in that it is considered a TRANSITIVE classifier stem based on DUAL SUBJECT marking characteristics (§5.3.3.1). While as a simple verb it forms intransitive verbs (494), when it occurs in bipartite verbs it appears to form transitive verbs (495) (though the transitivity status of these constructions cannot be confirmed due to lack of OBJECT marking on 3SG objects).

(494) **naɖi** **kininɲiŋgi** **pulinmi**
 nadi **kininɲi-ɲki** **pulinmi**
 2DU.PRO **2NSG.HANG.R.IPFV-DU.S** hunting.platform

‘You two fellas are hanging up on the hunting platform.’

(JN: IG3-009-A)

(495) **awu** **naɖi** **ninɲinguwata**
 awu nadi **ninɲi-ɲki-wat=a**
 ANIM 2DU.PRO **2NSG.HANG.R.PFV-DU.S-hang=PST**

‘You two fellas hung your beef up.’

(JN: IG3-006-A)

HANG in its simple verb function can also express events of ‘fighting’ (496) and this meaning can be extended to the event of playing cards, which is conceived of as ‘fighting’ with cards (497).

(496) jeḷi piŋi munŋini kirijjija
 jeḷi βiŋi munŋini kirijci=ja
 WEAP now paperbark 1NSG.HANG.R.IPFV=PST

‘And then we started fighting with the paperbark.’

(JJ: 20080521-MC-Bush-games)

(497) cuja jeḷi kaṭ kujjikunmela
 cuja jeḷi kaṭ kujci=kunmel=a
 yesterday WEAP cards 3NSG.HANG.R.IPFV=3PL.GO.R.IPFV=PST

‘Yesterday they were playing cards.’

(ET: 20150627-JM-ET-03)

SAY/DO generally functions as a simple verb which expresses events of ‘speaking’ (498) or ‘doing’ (499).

(498) dakta meŋina
 dakta me-ŋin=a
 doctor 3SG.SAY/DO.R.PFV-1SG.OBL=PST

‘The doctor told me.’

(ET: 20150714-JM-ET)

(499) φindi kamugani
 βindi kamu=kani
 WHERE 3SG.SAY/DO.R.IPFV=3SG.GO.R.IPFV

‘What’s he doing?’

(PT: IG3-033-B)

SAY/DO also exhibits a particular feature found in Southern and Western Daly languages: in bipartite constructions, the lexical stem does not appear in its usual slot, instead occurring preposed to the classifier stem (Green, Reid, and Nordlinger 2017). Compare (500a) and (501a) where the lexical stem fills its regular position as a bound verbal element with (500b) and (501b) where it forms a separate phonological word which is preposed to the verb.⁸³ SAY/DO can also occur in phrasal verbs involving English borrowings (§9.3).

(500) a. ṅapurkni malaŋ amjerβaratni
 ṅa-purk=ni malaŋ am-cer-βarat=ni
 1SG.SWING.IRR-clap=FUT brolga 2SG.PIERCE.IRR-mouth-grab=FUT

‘You’re going to dance like a brolga.’ (RK: 1972-MW-M02004365A)

83. This type of construction is rare in the corpus with only three SAY/DO classifier and lexical stem pairs observed.

- b. niwir ma ji purk pimimaja
 niwir ma= ji purk pimi-ma=ja
 3PL.PRO MASC DEM.3 clap 3NSG.SAY/DO.R.PFV-belly=PST

‘They were shocked.’ (PT: IG3-033-B: 2)

- (501) a. naŋ ji ŋaridima na pirek
 naŋ ji ŋari-dim=a na βirek
 3SG.M.PRO DEM.3 1SG.HANDS.R.PFV-disappear=PST LOC ground

‘I buried it in the ground.’ (JN: IG3-012-B)

- b. dim ŋimiθaŋa
 dim ŋimi-taŋ=a
 disappear 1SG.SAY/DO.R.PFV-ear=PST

‘I forgot.’ (JN: IG3-013-B)

PASS is used only marginally in the corpus. It differs from all other speech, stance and motion classifier stems in that it does not occur as a simple verb, and likewise doesn’t exhibit any of the characteristics common to simple verb classifier stems such as functioning as a serial classifier or having a copula function. The forms of the PASS paradigm are unusual in that some singular forms are identical to TRAVEL forms matched for person/number features and plural forms are very similar or identical to equivalent GO forms, while the path of development of the dual forms is unclear (see table A.8 in Appendix A for PASS forms). PASS occurs in combination with only three lexical stems and each of these verbs expresses some sort of motion along a path. A subject moves along a path in (502), as does an object (a spear) in (503),⁸⁴ while a subject moves along a path past an object in (504).

- (502) ŋalburk ŋalburk kimin gani ku βari
 ŋalburk ŋalburk kimin kani ku βari
 ripple ripple KIND 3SG.GO.R DEM.2 grass
 kiniβiŋukani wudi
 kini-pi-cuk=kani wudi
 3SG.PASS.R.IPFV-head-carry=1SG.SIT.R.IPFV water

‘The grass was floating on the water with the current, making ripples.’
 (CM: 1982-Tree-Dreaming)

84. This example (and others which include ‘N04158’ in the citation) was not audio-recorded: the transcription and translation is taken from Ian Green’s notebook associated with his recordings, p. N04158.

- (503) jin jendi njɲjiribara wacen, ɲamgurita
 jin cendi ɲɲciri-bar=a wacen ɲam-yurit=a
 1SG.PRO spear 1SG.PASS.R.PFV-throw=PST dog 1SG.PIERCE.R.PFV-miss=PST
 ‘I threw a spear at that dog, I missed him.’ (N04158: IG3-035-A)

- (504) panmeliɲparata
 panmeli-ɲ-βarat-a
 3PL.PASS.R.PFV-1SG.O-grab=PST
 ‘They went past me.’ (PT: IG3-033-B)

5.4.2 Instrumental classifier stems

Marri Ngarr has six classifier stems which classify based on the instrument used to carry out an event. There are three instrumental classifier stems which classify based on the shape of the instrument involved in the event, the type of contact the instrument makes with the object, and the trajectory of the instrument when it is employed. These are the PIERCE, SWING and BUMP classifier stems. The three other instrumental classifier stems classify based on the body part used to carry out the event: HANDS, FEET and MOUTH.

Reid (2011, ch.4) and Green (1989, ch.6) provide comprehensive descriptions of three shape/ contact/ trajectory-based instrumental classifier stems in Ngan’gitjemerri and Marrithiyel. Briefly, one of these classifier stems (PAINT in Marrithiyel and POKE in Ngan’gitjemerri) occurs on verbs denoting events in which a long thin entity is used as an instrument, and makes contact with an object via its endpoint (e.g. spears, digging sticks, sewing needles) (Reid 2011, p. 255; Green 1989, p. 331). Another classifier stem (NJ in Marrithiyel and SLASH in Ngan’gitjemerri) classifies for instruments which are again usually long and thin, but with a flat surface, or face (e.g. paddles, brooms, knives). These instruments make contact with either the face (e.g. palm of hand) or edge (e.g. knife) of that instrument. In addition these types of instruments are generally used in a sweeping or swinging motion and follow a lateral/ arcing trajectory (Reid 2011, pp. 259–261; Green 1989, pp. 342–343). The third shape/ contact/ trajectory-based instrumental classifier stem (L in Marrithiyel and BASH in Ngan’gitjemerri) is generally characterised by heavy/ large/ round instruments or instruments which have broad surfaces (e.g. rocks), and/or events in which a large surface area of the instrument makes contact with the object, or contact which is made in a blunt manner or which ‘typically smashes, indents, or bruises a surface’ (Reid 2011, pp. 262–263, 267; Green 1989, pp. 345–347). Reid (2011, p. 263) also identifies a backwards and forwards trajectory in Ngan’gitjemerri (e.g. punching, hammering, chopping).

Corpus data reveals that three of the Marri Ngarr classifier stems: PIERCE, SWING and BUMP, display very similar semantics to the shape/ contact/ trajectory-based instrumental classifier stems found in Marrithiyel and Ngan’gitjemerri.⁸⁵ Examples given

85. These Marri Ngarr classifier stems also display formal similarities to the equivalent Marrithiyel classifier stems.

in (505) demonstrate the semantic distinction between these classifier stems in Marri Ngarr based on shape and type of contact with the object. Both (505a) and (505b) express events of hitting; however they contrast based on the instrument used to make contact: in (505a), which uses the SWING classifier stem (similar to NJ/SLASH in Marrithiyel/ Ngan'gitjemerri), the instrument is long and thin and contact is made with its edge, while in (505b), which is classified by BUMP (similar to L/BASH in Marrithiyel/ Ngan'gitjemerri), the instrument is round and broad-faced, and contact is made with a relatively large surface area. The semantics of PIERCE, which are similar to those of PAINT/POKE in Marrithiyel/ Ngan'gitjemerri, would be inconsistent with the semantics of the lexical stem /kurp/ 'hit', as this event does not involve contact with the endpoint of an instrument. However, we see a comparable event in (505c) involving a long, thin instrument, and in which the endpoint is pertinent.

- (505) a. η ijngurpa puŋidit jeʒi ʔawur ɲarin
 η ij-kurp=a puŋidit jeʒi ʔawur =ɲarin
 1SG.SWING.R.PFV-hit=PST head WEAP tree =INSTR
 'I hit him on the head with a stick.' (RK: 1972-MW-M02004364A)
- b. η uligurpa jeʒi karila
 η uli-kurp=a jeʒi karila
 1SG.BUMP.R.PFV-hit=PST WEAP rock
 'I hit him with a rock.' (PT: IG3-032-A)
- c. naŋ ma ji amuŋbuŋa
 naŋ ma= ji am-ŋ-buŋ=a
 3SG.M.PRO MASC= DEM.3 3SG.PIERCE.R.PFV-1SG.O-poke=PST
 'He poked me with a stick.' (PT: IG3-037-B)

In (506) the instrument in both examples is the hand, yet we see a contrast in classifier stem based on the shape the hand makes. In (506a), the hand is open, forming a shape which has a flat edge, while in (506b) the hand is made into a fist, i.e. a round shape.

- (506) a. pundi ɲarin η ijngurpa ɲawak
 pundi =ɲarin η ij-kurp=a ɲawak
 hand =INSTR 1SG.SWING.R.PFV-hit=PST mosquito
 'I hit that mosquito with a (flat) hand.' (JoN: IG3-035-A)
- b. niwijn ma ji pulunuŋgurpa
 niwijn ma= ji pul-ni-ŋ-kurp=a
 3DU.PRO MASC= DEM.3 3NSG.BUMP.R.PFV-(U)AUG.SUBJ>MIN.O-1SG.O-hit=PST
 jeʒi pundi
 jeʒi pundi
 WEAP hand
 'Those two punched me.' (PT: IG3-038-B)

In example (507) no contact with an object is achieved; however a contrast in classifier stem is still made to reflect the distinction in instrument.

- (507) a. jin ηjɨŋgurita
 jin ηjɨŋ-yurit=a
 1SG.PRO 1SG.SWING.R.PFV-miss=PST
 ‘I missed him with a stick.’ (N04158: IG3-035-A)
- b. jin ʝendi ηjɨŋjiribara wacen, ηamgurita
 jin cendi ηjɨnciri-bar=a wacen ηam-yurit=a
 1SG.PRO spear 1SG.PASS.R.PFV-throw=PST dog 1SG.PIERCE.R.PFV-miss=PST
 ‘I threw a spear at that dog, I missed him.’ (N04158: IG3-035-A)

5.4.2.1 PIERCE

The PIERCE classifier stem can occur as a simple verb with the meaning ‘paint’ (508).

- (508) jin ηumungaŋja
 jin ηumun=kaŋi=ja
 1SG.PRO 1SG.PIERCE.R.IPFV=1SG.SIT.R.IPFV=PST
 ‘I was painting him.’ (JN: IG3-009-A)

Aside from this simple verb usage, which is rare in the corpus, PIERCE occurs on a number of verbs involving instruments with long, thin shapes including sticks, fingers, arms and sewing needles. In all of these verbs it is the endpoint of this instrument which makes contact with the object. Often the instrument can be regarded as being situated perpendicular to the object and the endpoint either simply makes contact with the object, or in some way pierces and/or travels through or part way through the object. The examples below illustrate events of contact with a long, thin instrument such as a finger (509) or an arm (510) or of an instrument piercing and/or travelling through an object (511) - (513).

- (509) kaŋgi
 kaŋki
 1INCL.DU.PRO
 kumbumunŋiʝuʝuʝukambu
 kumbumun-ŋki-zuc~zuc=kambu
 1INCL.DU.PIERCE.R.IPFV-1INCL.DU.OBL-REDUP~poke=1INCL.DU.SIT.R.IPFV
 ‘Us two were poking each other.’ (PT: IG3-023-B)

- (510) **ɲumunbetniwuri**
ɲumun-mbi-at=ni=wuri
1SG.PIERCE.R.IPFV-2SG.OBL-pick.up=FUT=TOWARDS
 ‘I’ll get it for you.’ (HK: 197207-MW-M02004363A)
- (511) **ɲumunʔadiʔunʔaŋi**
ɲumun-zadi-ʔun=kaŋi
1SG.PIERCE.R.IPFV-back-make.hole=1SG.SIT.R.IPFV
 ‘I drilled a hole in it.’ (JoN: IG3-037-B)
- (512) **pamuŋmaŋdiʔacbaʔa**
pam-ŋ-maŋʔi-βac~βac=a
3NSG.PIERCE.R.PFV-1SG.O-neck-REDUP~stitch=PST
 ‘He stitched up my neck.’ (JoN: IG3-033-A)
- (513) **ɲumuŋinʔaŋbibikaŋi** **ʔaŋi**
ɲumun-ŋin-ʔaŋ-bi~bi=kaŋi **ʔaŋi**
1SG.PIERCE.R.IPFV-1SG.OBL-ear-REDUP~clean=1SG.SIT.R.IPFV **ear**
 ‘I’m cleaning my ears out.’ (PT: IG3-030-B)

In other cases it may be that the long, thin shape associated with PIERCE, which usually refers to the instrument, is instead used to describe the trajectory along which a participant moves. In (514) no contact is made with an object and the subject might be conceived of as following a linear path which reflects the shape usually associated with PIERCE.

- (514) **kinimuŋerʔaradandi**
kinimun-cer-βarat=andi
2SG.PIERCE.R.IPFV-mouth-pass=APPR
 ‘You might go right past.’ (JoN: IG3-024-A2)

PIERCE also occurs in verbs which do not involve physical actions and in these types of verbs its semantic input can be less clear. In some of these verbs the literal meaning has similar attributes to the physical events described above. For example, in many Australian languages the belly is the seat of emotion (Gaby 2008, p. 34) and is used in constructions to express various emotions. In Marri Ngarr to ‘like’ is rendered literally as the subject’s belly being ‘picked up’ ((515), cf. (510)). The verb denoting ‘sorry’ in (516)

is an impersonal construction which reportedly has a literal interpretation involving an experiencer being stabbed by an external force (516) (Ford 2010b, p. 43). For other verbs such as those in (517) - (519) there is no obvious link to the instrumental semantics described above.

(515) **miji jɨjildi mazi kinimunat**
miji jɨjildi mazi kinimun-at
 PLANT long.yam belly 2SG.PIERCE.R.IPFV-pick.up
 ‘Do you like yams?’ (HK: 1972-MW-M02004365A)

(516) **kumuɲimacer**
kumun-ɲ-ma-cer
 3SG.PIERCE.R.IPFV-1SG.O-belly-stab
 ‘I’m sorry.’ (PT: IG3-033-A)

(517) **kinimuɲegandi**
kinimun-ɲe=kandi
 2SG.PIERCE.R.IPFV-smell=2SG.SIT.R.IPFV
 ‘Can you smell it?’ (RK: 1972-MW-M02004364B)

(518) **kinimuneri**
kinimun-eri
 2SG.PIERCE.R.IPFV-tell.lie
 ‘Tell a lie.’ (RK: 197207-MW-M02004362B)

(519) **wudi ar wu kumunpurkwa**
wudi ar =wu kumun-bur=ka
 WATER DEM.1 =EMPH 3SG.PIERCE.R.IPFV-cold=3SG.STAND.R.IPFV
 ‘This beer is really cold.’ (JoN: IG3-023-A)

5.4.2.2 SWING

While we saw above that contact with the endpoint of a long, thin instrument was a necessary component for classification with PIERCE, for verbs classified by SWING, contact is instead generally made with the face or edge of a long, thin instrument. A swinging

or sweeping trajectory of the instrument is usually also relevant in SWING classification and in addition to this, in events classified by SWING the instrument generally moves parallel to the object/ the ground in its swinging or sweeping motion. Examples (520) - (524) below illustrate events involving instruments with typical shapes and trajectories suitable for SWING classification.

(520) wuji ηata ji kinmaβuckani
 wuji ηata ji kij-ma-βuc=kani
 PLACE house DEM.3 3SG.SWING.R.IPFV-belly-sweep=3SG.GO.R.IPFV
 ‘She swept out the house.’ (JoN: IG3-030-B)

(521) awu ηijnzuzupa
 awu ηijn-zup~zup=a
 ANIM 1SG.SWING.R.PFV-REDUP~skin=PST
 ‘I skinned an animal.’ (JoN: IG3-025-A)

(522) kađi ηiriηigigurpa wacen jeđi ɥawur ηarin
 kadi ηiriη-ηki-kurp=a wacen jeđi ɥawur =ηarin
 1DU.PRO 1NSG.SWING.R.PFV-DU.S-hit=PST dog WEAP tree =INSTR
 ‘Us two hit the dog with a stick.’ (PT: IG3-036-A)

(523) aηiniηerijerepa cerwacen
 aη-ni-cer-jerep=a cerwacen
 3SG.SWING.R.PFV-3SG.M.OBL-mouth-shave=PST moustache
 ‘He shaved his moustache.’ (JoN: IG3-037-A)

(524) warija kinmawurkuzi warija
 warija kij-ma-wur=kuzi warija
 SEQ 3SG.SWING.R.IPFV-APPL-return=3SG.SIT.R.IPFV SEQ
 ‘Then he moved (the coals out of the way).’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

While we might expect events of spearing to be classified by PIERCE due to the (assumed) salience of the endpoint of the spear (a long, thin instrument), it is instead SWING which is usually employed for this type of event, in combination with the lexical stem /zɪp/ ‘spear’ (525) or /zap/ ‘spear.PL’. The reason for the use of the SWING classifier stem to classify events of spearing is unclear, though may be connected to the movement of the arm in relation to the ground during the action of throwing.

(525) *ı̄ta jin awadıwan andipa*
jica jin a=wadıwan aŋ-zı̄p=a
 father 1SG.PRO ANIM=kangaroo 3SG.SWING.R.PFV-spear=PST

‘My father speared a kangaroo.’ (UNK: 196905-DT-D01009403)

SWING also occurs on verbs of speech and psych verbs, where the connection to the core instrumental semantics of this classifier stem is unclear (526) - (528).

(526) *niwiŋ ma ji kuŋjerıcukaŋgikawiŋ*
niwiŋ ma= ji kuŋ-cer-juk-aŋki=kawu-ŋ
 3DU.PRO MASC= DEM.3 3NSG.SWING.R.IPFV-mouth-burn-RECIP=3.SIT.R.IPFV-DU.S.INTR

‘They’re having a row.’ (JoN: IG3-034-B)

(527) *kađi ŋiriniŋgiŋerpaja*
kadi ŋiriŋ-ŋki-cerpa=ja
 1DU.PRO 1NSG.SWING.R.PFV-DU.S-ask=PST

‘Us two fellas asked him.’ (JoN: IG3-025-A)

(528) *ŋiŋiŋiŋtaŋβalija*
ŋiŋ-ŋin-taŋβali=ja
 1SG.SWING.R.PFV-1SG.OBL-forget=PST

‘I forgot.’ (PT: IG3-033-A)

The data on PIERCE and SWING verbs where they are used in events of physical action suggests these classifier stems have semantics which are very similar to the equivalent classifier stems in Marrithiyel and Ngan’gitjemerri. One additional point which seems apparent from the Marri Ngarr data is a consistent position of the instrument with relation to the object: in PIERCE verbs the instrument generally seems to be positioned perpendicular to the object (or to the ground) and often travels through it after making contact. In contrast in events classified by SWING, the instrument often moves in parallel fashion to the object/ground.

5.4.2.3 BUMP

The BUMP⁸⁶ classifier stem occurs on a small number of verbs which involve rounded or broad-faced instruments, or verbs in which a broad surface area makes contact with an object. These semantics are consistent with the semantics of the third shape/ contact/

86. The BUMP classifier stem is glossed as such to try to capture the fact that events classified by this classifier stem involve instruments which make contact with a broad surface area (rather than a point, cf. PIERCE or a face/edge, cf. SWING).

trajectory-based instrumental classifier stem, L/BASH, found in Marrithiyel/ Ngan'gitjemerri. The BUMP classifier stem invariably appears in verbs where a rock (529) or fist (530) is used as a weapon, i.e. events involving a rounded instrument which makes contact with a relatively broad surface area. In (531) it is the body as instrument which can be conceived of as having a broad surface area.

- (529) jin niwijn ji ŋulwudiyapni kwazi karila
 jin niwijn ji ŋul-widi-yap=ni kwazi karila
 1SG.PRO 3DU.PRO DEM.3 1SG.BUMP.IRR-3DU.O-throw.at=FUT SSPEAR rock
 ŋarin
 =ŋarin
 =INSTR

'I'm gonna throw a rock at those two.' (PT: IG3-036-A)

- (530) jeʒi pundi ŋuliyurpa
 jeʒi pundi ŋuli-kurp=a
 WEAP hand 1SG.BUMP.R.PFV-hit=PST

'I punched him.' (PT: IG3-032-A)

- (531) piljpaʒukaŋgija
 puli-ŋ-βadu-kaŋki=ja
 3NSG.BUMP.R.PFV-DU.S.INTR-push-RECIP=PST

'Those two bumped into each other.' (JJ: RN5-002-B)

While we might expect that events in which an axe is the instrument would be classified by SWING based on the shape of the axe blade and the swinging motion used to wield it, in Marri Ngarr and other Daly languages chopping events involving an axe are classified by BUMP (or the equivalent classifier stem in other Daly languages). Similarly, verbs of biting are also classified by BUMP or the equivalent classifier stem in the three languages (Green 1989, p. 346; Reid 2011, pp. 262–264). This may be consistent with the up and down, backwards and forwards trajectory identified for the equivalent classifier stem in Ngan'gitjemerri (Reid 2011, p. 263). Marri Ngarr examples of these events are given in (532) - (533).

- (532) naŋ ji ceŋji kulʒurkuzi malawur
 naŋ ji ceŋci kul-cur=kuzi malawur
 3SG.M.PRO DEM.3 FIRE 3SG.BUMP.R.IPFV-cut.PL=3SG.SIT.R.IPFV axe
 ŋarin
 =ŋarin
 =INSTR

'He's chopping up the wood with an axe.' (PT: IG3-018-A)

patterns the same way to L/BASH in Marrithiyel and Ngan'gitjemerri in terms of classifying events involving axes and teeth suggests it shares similar semantics to these classifier stems.

5.4.2.4 HANDS

The HANDS classifier stem is highly productive, co-occurring with around fifty lexical stems in the corpus. The verbs formed through these combinations denote events covering a wide range of meanings where the hands are used as an instrument to conduct the event, such as washing, holding, breaking (with hands), covering, touching, and more specific types of touching such as pinching, scratching, rubbing, slapping and pushing.

- (539) ηa $wu\eta a$ $\eta ari\eta yatija$
 ηa $wu\eta a$ $\eta ari-\eta -yati=ja$
 3SG.F.PRO already 1SG.HANDS.R.PFV-3SG.F.OBL-create=PST

‘I made it for her already.’ (HK: 197207-MW-M02004363A)

- (540) $miji$ kan wu $kar\beta i\beta uc$ $ce\eta ji$
 $miji$ kan $=wu$ $kar-pi-\beta uc$ $ce\eta ci$
 PLANT ANAPH.DEM =WU 3SG.HANDS.R.IPFV-head-cover FIRE

‘He covered the fruit with the coals.’ (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

- (541) $kari\eta mencujukuzi$
 $kar-\eta -men-cuk\sim cuk-kuzi$
 3SG.HANDS.R.IPFV-1SG.O-arm-REDUP~rub=3SG.SIT.R.IPFV

‘He’s rubbing my arm.’ (RK: 1972-MW-M02004364B)

- (542) $\eta adi\beta i$ $a\eta a\eta mi\eta$ $arzu\eta up$ $\eta ^\dagger amin$
 $\eta adi\beta i$ $a=\eta a\eta mi\eta$ $ar-zup\sim zu\eta p$ $=zamin$
 skin ANIM=fish 2SG.HANDS.IRR-REDUP~skin =AWAY

‘You scrape the scales off the fish.’ (HK: 1972-MW-M02004364A)

- (543) pundi yuriβundiḏaḏapangi
 pundi kuri-pundi-ṭap~ṭap=aŋki
 hand 3NSG.HANDS.R.IPFV-hand-REDUP~touch=RECIP
 ‘They’re all slapping each other.’ (JJ: RN5-002-B)

Like other classifier stems discussed above, the HANDS classifier stem also occurs on verbs which do not denote physical actions. HANDS occurs on verbs of speech, emotion or bodily sensation: verbs in which there is no use of the hands as instrument, e.g. (544) - (545).

- (544) ju mari ṭandima ηurijengini
 ju mari ṭandima ηuri-jenki=ni
 yes LANG short 1SG.HANDS.IRR-talk=FUT
 ‘I’m gonna tell you a short story.’ (JJ: 20080811-MC-WaterRat)

- (545) kariŋinciwingani muli ari wu
 kari-ŋin-jiwin=kani muli= ari =wu
 3SG.HANDS.R.IPFV-1SG.OBL-jealous=3SG.GO.R.IPFV FEM= DEM.1 =WU
 ‘She’s always jealous of me, this woman.’ (PT: IG3-030-B)

5.4.2.5 FEET

The FEET classifier stem combines with relatively few lexical stems compared with HANDS, with less than ten combinations observed in the corpus. In all of these verbs the feet act as the instrument involved in conducting the event. These include intransitive events of walking, going away or looking for something (while walking), e.g. (546) - (547), or transitive events of making contact with an object using the feet (548) - (549).

- (546) agalembi wani awuni kinjukani
 a=kalembi wani awu=ni kin-cuk=kani
 ANIM=water.rat 3SG.GO.R ANIM=DAT 3SG.FEET.R.IPFV-look.for=3SG.GO.R.IPFV
 ‘The water rat was going around looking for meat.’
 (JN: 20090226-MC-WaterRat)

- (547) jin ηatinwadatjani
 jin ηadi-nij-wudar-ŋa=ni
 1SG.PRO 1SG.FEET.IRR-2DU.OBL-go.away-MAL=FUT
 ‘I’m gonna walk away from you two.’ (JoN: IG3-026-B)

(548) **ηadiwidibacbacηawini**
 ηadi-widi-βac~βac=ηawu=ni
 1SG.FEET.IRR-3DU.O-REDUP~kick=1SG.SIT.IRR=FUT
 ‘I’m gonna kick those two.’ (JN: IG3-009-A)

(549) **naṭuηa**
 na-ṭuη=a
 3SG.FEET.R.PFV-make.hole=PST
 ‘It hatched (out of the egg).’ (PT: IG3-031-A)

The following example pairs demonstrate the semantic contrast between the use of HANDS and FEET.

(550) a. **naḋi kiningipuβuṭkaniηa**
 nadi **kinin-ηki-βuṭ~βuṭ=kandi-η=a**
 2DU.PRO 2NSG.FEET.R.IPFV-DU.S-REDUP~break=2.SIT.R.IPFV-DU.S.INTR=PST
 ceηji ṭawur
 ceηci ṭawur
 FIRE tree
 ‘You two fellas were breaking up wood for the fire (with your feet)’
 (PT: IG3-016-A)

b. **niη erinβuṭ**
 niη **ar-ηin-βuṭ**
 2SG.PRO 2SG.HANDS.IRR-1SG.OBL-break
 ‘You break it for me (with your hands).’ (JN: IG3-011-B)

(551) a. **naη ma ji kadiηφaḋuni**
 naη ma= ji **kadi-η-βadu=ni**
 3SG.M.PRO MASC= DEM.3 3SG.FEET.IRR-1SG.O-push=FUT
 ‘That fella’s going to kick me.’ (PT: IG3-019-A)

b. **ηumburφaḋunim**
 ηumbur-βadu=nim
 1INCL.DU.HANDS.R.PFV-push=AUG
 ‘The three of us pushed it.’ (PT: IG3-032-A)

5.4.2.6 MOUTH

A third body part classifier stem, labelled MOUTH, classifies events in which the mouth can be construed as the instrument, such as verbs of consumption. Some examples of this use of MOUTH are given below in (552) - (555).

- (552) jin ɲijurukaŋja
 jin ɲi-juruk=kaŋi=ja
 1SG.PRO 1SG.MOUTH.R.IPFV-chew=1SG.SIT.R.IPFV=PST
 ‘I was chewing it.’ (PT: IG3-032-B)

- (553) ceŋji kibibirkuzi
 cenci ki-biɽ~biɽ=kuzi
 fire 3SG.MOUTH.R.IPFV-REDUP~cook=3SG.SIT.R.IPFV
 ‘He’s blowing on the fire.’ (RK: 1972-MW-M02004365A)

- (554) aŋalpu giwuɖarandi wakaj
 a=ŋalpu ki-wudar=andi wakaj
 ANIM=many 3SG.MOUTH.R.IPFV-eat=APPR finish
 ‘He might eat it all up.’ (JN: IG3-014-A)

- (555) mazi ɲumunat ɲanan tʃaθap awu
 mazi ɲumun-at =ɲanan zɑ-tap awu
 belly 1SG.PIERCE.R.IPFV-pick.up =SOURCE 2SG.MOUTH.IRR-try ANIM
 ari
 ari
 DEM.1
 ‘You’re going to like this meat, try it.’ (JN: IG3-011-B)

Green (1989, pp. 348–349) describes another use of the equivalent classifier stem in Marrihithiel as classifying verbs of ‘containment’, particularly bodily containment, where something is considered filled up, blocked etc. These verbs are formed as impersonals. Examples (556) - (557) suggest a similar usage may also be present in Marri Ngarr with the MOUTH classifier stem.

- (556) jin jaŋdala
 jin ja-ŋ-dal=a
 1SG.PRO 3SG.MOUTH.R.PFV-1SG.O-spear=PST
 ‘I’m choking.’ (PT: IG3-032-B)

- (557) η anipa \grave{t} a a \acute{d} i η perijuruta
 η ani- β ac=a adi- η -peri-jurut=a
 1SG.GO.R.PFV-jump=PST 3SG.CAUSE.R.PFV-1SG.O-foot-trip=PST
 \grave{t} anjenwika
 za- η -jen-wik=a
 3SG.MOUTH.R.PFV-1SG.O-nose-take.in.water=PST

‘I went in, it knocked me over, I (nearly) drowned.’ (PT: IG3-031-B)

In contrast to HANDS and FEET, which are primarily present in verbs in which an instrumental classification function is apparent, MOUTH appears in a range of verbs which have no obvious involvement of the mouth as an instrument, including verbs of motion, transfer and psych verbs. Some examples are given below in (558) - (561).

- (558) η en η i ari η i \grave{t} ari deli \grave{t} i β a gan η anana
 η en η i ari η i- \grave{t} ari deli \grave{t} i β a kan= η anan
 today DEM.1 1SG.MOUTH.R.IPFV-go Daly River ANAPH.DEM=SOURCE
 η a \acute{t} arini dawin pi η iza
 η a- \acute{t} ari=ni dawin β i η i=za
 1SG.MOUTH.IRR-go=FUT Darwin now=AWAY

‘I’m going to Daly River, from there I’m going to Darwin.’ (PT: IG3-035-B)

- (559) ϕ andi gila η abaja
 β andi kila η a-ba=ja
 sun big 1SG.MOUTH.R.PFV-come=PST

‘I came out at midday.’ (JN: IG3-008-A)

- (560) na η η i dani β apa
 na η ci za-ni- β ap=a
 THING 3SG.MOUTH.R.PFV-3SG.M.OBL-transfer=PST

‘He gave it to him.’ (JJ: RN5-001-A)

- (561) jin η ini η \acute{d} andaka η i na \acute{d} i
 jin η i-ni η - \acute{t} andak= η a η i nadi
 1SG.PRO 1SG.MOUTH.R.IPFV-2DU.OBL-listen=1SG.SIT.R.IPFV 2DU.PRO

‘I’m listening to you two.’ (PT: IG3-038-A)

- (562) ϕ en η i ki β en η i ϕ i η ju η gani
 pe η ki ki- η -pe η ki-ju η ~ju η =kani
 knee 3SG.MOUTH.R.IPFV-1SG.O-knee-REDUP~hurt=3SG.GO.R.IPFV
 ‘I’ve got pain in my knee.’ (JoN: IG3-030-A)

5.4.3 CAUSE

CAUSE is a commonly used classifier stem in the corpus, co-occurring with a wide range of lexical stems. There is no obvious semantic connection between verbs containing CAUSE when denoting events of physical action. Some examples of the range of the physical action verbs classified by CAUSE are given in (563) - (566).

- (563) jin a ϕ iwi ϕ a ϕ uja
 jin adi-widi- β adu=ja
 1SG.PRO 1SG.CAUSE.R.PFV-3DU.O-push=PST
 ‘I pushed over two men.’ (JN: IG3-013-A)

- (564) η idinwici η ji
 η idin-wici- η ji
 1SG.CAUSE.R.IPFV-roll-1SG.SIT.R.IPFV
 ‘I’m rolling up (a bandage).’ (PT: IG3-025-B)

- (565) wudari η uduwerkni
 wudi ari η udi-werk=ni
 WATER DEM.1 1SG.CAUSE.IRR-hide=FUT
 ‘I’m gonna hide this alcohol.’ (JN: IG3-012-B)

- (566) wiri ϕ ϕ awur η i η ji adiperduka
 wiri ϕ ϕ awur η i η ci adi- ϕ eri-duk=a
 wind tree one 3SG.CAUSE.R.PFV-foot-pull=PST
 ‘The wind knocked one tree down.’ (PT: IG3-031-B)

What can be said of verbs classified by CAUSE is that the vast majority are transitive (based on the presence of OBJECT-marking or an assumed 3SG object) with no specific instrumental focus. Accordingly I analyse CAUSE as a default classifier of transitive events, which is utilised in the absence of instrumental salience (cf. the classifier stems described

in §5.4.2). Example pairs contrasting transitive verbs containing CAUSE with intransitive verbs are given in (567) - (568).

- (567) a. warija miji βiŋi adijibuta mi mari
 warija miji βiŋi adi-jibut=a mi= mari
 SEQ PLANT now 3SG.CAUSE.R.PFV-submerge=PST PLANT cycad
 wu
 =wu
 =WU

‘And then he put the cycads in the water.’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

- b. naŋ ji kwanijibut na wudi
 naŋ ji kani-jibut na wudi
 3SG.M.PRO DEM.3 3SG.GO.R-swim LOC water

‘He is swimming through the water.’

(JoN: IG3-021-A)

- (568) a. jin wudi φari ŋaɖiwawaja
 jin wudi βari ŋadi-wa~wa=ja
 1SG.PRO water grass 1SG.CAUSE.R.PFV-REDUP~spray=PST

‘I watered the grass.’

(PT: IG3-037-B)

- b. warija kaniweweja warija
 warija kani-wa~wa=ja warija
 SEQ 3SG.GO.R.IPFV-REDUP~spray=PST SEQ

‘And he was vomiting.’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

CAUSE also occurs in a range of verbs which denote non-physical events (569) - (571), and can also form impersonal verbs (572).

- (569) ju kaɖi ŋitinimbiðanɟiljilni
 ju kadi ŋidi-ni-mbi-ɬaŋ-jil~jil=ni
 yes 1DU.PRO 1NSG.CAUSE.IRR-(U)AUG.S>MIN.O-2SG.O-ear-REDUP~tell.truth=FUT

‘Yes, us two fellas will teach you.’

(PT: IG3-022-A)

- (570) kidiŋimicikuzi
 kidin-ŋ-mici=kuzi
 3SG.CAUSE.R.IPFV-1SG.O-look.at=3SG.SIT.R.IPFV

‘He was looking at me.’

(PT: IG3-022-B)

(571) niwɨŋ ji ga padiwidimitela
 niwɨŋ ji =ka padi-widi-mitel=a
 3DU.PRO DEM.3 =TOP 3NSG.CAUSE.R.PFV-3DU.O-send.away=PST
 ‘Those two sent them away.’ (PT: IG3-024-B)

(572) mazi aɗiŋbuta miji
 mazi adi-ŋ-but=a miji
 belly 3SG.CAUSE.R.PFV-1SG.O-fill=PST PLANT
 ‘I’m full up from food.’ (JoN: IG3-032-B)

CAUSE combines with the OBLIQUE marker to form reflexive constructions; however reflexives formed with CAUSE differ from reflexives formed with other TRANSITIVE classifier stems (§5.6.4.1) in that CAUSE reflexive constructions can have inanimate participants. The CAUSE examples below contrast regular transitive verbs ((573a) and (574a)) with reflexives containing inanimate participants ((573b) and (574b)).

(573) a. niŋ adiβilpilwari
 niŋ adi-pil~pil=wari
 2SG.PRO 2SG.CAUSE.IRR-REDUP~roll=2SG.GO.IRR
 ‘You roll it along.’ (PT: IG3-025-B)

b. kitipilpilgani
 kidin-ni-pil~pil=kani
 3SG.CAUSE.R.IPFV-3SG.M.OBL-REDUP~roll=3SG.GO.R.IPFV
 ‘It rolled down the hill.’ (PT: IG3-025-B)

(574) a. jin muŋari ŋiwera adiŋwaɗaɗa
 jin muŋari ŋiwer=a adi-ŋ-waɗaɗa=a
 1SG.PRO sleep 1SG.LIE.R=PST 3SG.HANDS.R.PFV-1SG.O-shake=PST
 ‘I was asleep, he (came along and) shook me (awake).’ (PT: IG3-037-B)

b. kaɭa kitaɗaɗkwanɗ
 kala kidin-ni-waɗaɗ=kwanɗ
 rock 3SG.CAUSE.R.IPFV-3SG.M.OBL-shake=3SG.STAND.R.IPFV
 ‘The stone is wobbly.’ (HK: 197207-MW-M02004363A)

Other reflexive constructions formed with CAUSE show that the reflexive argument can alternatively be animate (575) - (577). These reflexives with animate participants seem similar semantically to reflexive constructions formed with PUT (§5.4.4) in that they often involve the reflexive participant manipulating their whole body in some way.

- (575) *ŋa* *aɕiŋgulila* *naŋɕi* *ɲani*
 ŋa *adi-ŋ-ɣulil=a* *naŋci* *ɲani*
 3SG.F.PRO 3SG.CAUSE.R.PFV-3SG.F.OBL-enter=PST THING body
 ‘She put on her dress.’ (HK: 1972-MW-M02004365A)

- (576) *niŋ* *aɕimbiɣubur*
 niŋ *adi-mbi-ɣubur*
 2SG.PRO 2SG.CAUSE.IRR-2SG.OBL-turn.over
 ‘Roll over’ (JoN: IG3-036-A)

- (577) *niwir* *ji* *ɸadiwirpacbaɕa*
 niwir *ji* *padi-wir-βac~βac=a*
 3PL.PRO DEM.3 3NSG.CAUSE.R.PFV-3PL.OBL-REDUP~jump=PST
 ‘They all jumped.’ (JN: IG3-010-A)

CAUSE also occurs in a rare construction where it combines with a nominal which appears to function as a lexical stem, and to which the PAST tense marker /=*a*/ can attach ((578) - (581)). Only 3.R.PFV forms have been observed in this function in the corpus.⁸⁷ In this function when the referent is dual, CAUSE takes the INTRANSITIVE form of the DUAL SUBJECT marker, /-*ɲ*/, even though the CAUSE classifier stem would normally take the TRANSITIVE form /-*ŋki*/. While the presence of the classifier stem and the PAST tense marker would suggest that this construction is a verb, it usually seems to be interpreted as an argument of the predicate. However, in (580) the nominal is preceded by the nominal classifier /*je*=/, suggesting that the classifier stem and nominal do not form a bipartite verb and that CAUSE instead functions as a simple verb. CAUSE is never otherwise observed functioning as a simple verb; however in Marrithiyel it is able to do so. Further investigation into these constructions is required.⁸⁸

87. The form of the 3SG.CAUSE.R.PFV classifier stem is usually /*padi*/. The change in vowel quality is due to vowel harmony spreading leftwards as a result of the attachment of the palatal INTRANSITIVE DUAL SUBJECT marker. See §2.3.2 for details.

88. It is unclear what the form /*wadi*/ is in (581). One possibility is that it is a borrowing from Marrithiyel: the same form /*wadi*/ occurs as a nominal for ‘man’ or a masculine classifier in Marrithiyel.

(578) niwijn pidijnmukuja
niwijn padi-ŋ-muku=a
3DU.PRO 3NSG.CAUSE.R.PFV-DU.S.INTR-woman=PST
kutiniŋmetkawiŋ
kudin-ni-ŋ-met=kawu-ŋ
3NSG.CAUSE.R.IPFV-(U)AUG.S>MIN.O-1SG.O-stare=3.SIT.R.IPFV-DU.S.INTR
‘Those two women, they were looking at me.’ (PT: IG3-022-A)

(579) niwijn ji pidinwacena
niwijn ji padi-ŋ-wacen=a
3DU.PRO DEM.3 3NSG.CAUSE.R.PFV-DU.S.INTR-dog=PST
kumunŋepekaŋgikawuŋa
kumun-ŋe~ŋe-kaŋki=kawu-ŋ=a
3NSG.PIERCE.R.IPFV-REDUP~smell-RECIP=3.SIT.R.IPFV-DU.S.INTR=PST
‘Those two dogs were smelling each other.’ (PT: IG3-023-B)

(580) ŋa muli ji karwidipitkuži
ŋa muli ji kar-widi-pit=kuži
3SG.F.PRO FEM DEM.3 3SG.HANDS.R.IPFV-3DU.O-wash=3SG.SIT.R.IPFV
pidiŋ jaβurpurka
padi-ŋ ja=purpurk=a
3NSG.CAUSE.R.PFV-DU.S.INTR CHILD=little=PST
‘That woman was washing the two children.’ (PT: IG3-038-B)

(581) kwani adimuku jaβurpur wađikwani
kwani adi-muku je=purpurk wadi=kwani
3SG.GO.R 3SG.CAUSE.R.PFV-woman CHILD=little ?=3SG.GO.R.IPFV
‘He’s coming with his wife and kids.’ (PT: IG3-023-A)

5.4.4 PUT

The PUT classifier stem is used only marginally in the corpus. The majority of verbs containing PUT denote events of ‘putting (down)’ or ‘leaving’ objects in locations (582) - (583). The event of ‘building (a house)’ is also conceived of as a ‘putting’ event (584).

(582) miji ηuθatni na jezi ηata
 miji ηu-ṭat=ni na jezi ηata
 PLANT 1SG.PUT.R.PFV-put.down=FUT LOC inside house
 ‘I’ll put the food inside the house.’ (JoN: IG3-034-B)

(583) ηadizuzujni ηujukni ji
 ηadi-zuc~zuc=ni ηu-juk=ni ji
 1SG.FEET.IRR-REDUP~pick.up.PL=FUT 1SG.PUT.IRR-leave=FUT DEM.3
 ‘I wanna pick them up and leave them there.’ (JN: IG3-014-A)

(584) kaḍi ηata kiriṅginkiθatḥiṅkariṅ
 kadi ηata kirinkin-ṅki-ṭat-βiṅi=kari-ṅ
 1DU.PRO house 1NSG.PUT.R.IPFV-DU.S-put.down-now=1NSG.SIT.R.IPFV-DU.S.INTR
 ‘Us two fellas are building a house.’ (JoN: IG3-024-B)

PUT also appears in verbs constructed as reflexives where the reflexive participant assumes some kind of posture with their whole body (585) - (587). In this way these constructions are similar semantically to some reflexive constructions formed with CAUSE (§5.4.3).

(585) jin ṅiṅiṅiṅinmapikṅiwer ji
 jin ṅiṅkin-ṅin-ma-pik=ṅiwer ji
 1SG.PRO 1SG.PUT.R.IPFV-1SG.OBL-belly-lie=1SG.LIE.R.IPFV DEM.3
 nadiṅiṅubura
 ηadi-ṅin-yubur=a
 1SG.CAUSE.R.PFV-1SG.OBL-turn.over=PST
 ‘I was lying down and then I turned around.’ (PT: IG3-036-A)

(586) niwip ma ji kuṅiṅwiṅṅipṅipikawip
 niwip ma= ji kunkin-wip-peṅki-pik=kawu-ṅ
 3DU.PRO MASC= DEM.3 3NSG.PUT.R.IPFV-3DU.OBL-knee-lie=3.SIT.R.IPFV-DU.S.INTR
 ‘Those two are on their knees.’ (JoN: IG3-033-A)

- (587) **nin** kininginbikulkinija
 nin kininkin-mbi-kul=kinija
 2SG.PRO 2SG.PUT.R.IPFV-2SG.OBL-bend=2SG.STAND.R.IPFV
 ‘You’re bending over.’ (PT: IG3-032-A)

Other verbs containing the PUT classifier stem denote events of ‘pulling’ and ‘twisting’ (588) - (589) as well as being ‘tired’, which is constructed as an impersonal (590).

- (588) **kininɟerganija**
 kinin-cer=kani=ja
 3SG.PUT.R.IPFV-pull=3SG.GO.R.IPFV=PST
 ‘He was dragging it along.’ (JoN: IG3-024-B)

- (589) **agwu** kumunginkuritkambu ajeri
 a=ku=wu kumbunkin-ɣurit=kambu a=jeri
 ANIM=DEM.2=WU 1INCL.DU.PUT.R.IPFV-turn=1INCL.DU.SIT.R.IPFV ANIM=tail
 ‘We twisted the tail.’ (JoN: IG3-036-B)

- (590) **kinginɟici**
 kinin-ɟi-ci
 3SG.PUT.R.IPFV-1SG.O-tire
 ‘I’m tired.’ (JoN: IG3-035-B)

5.4.5 COOK and HEAT

The COOK classifier stem occurs in a number of verbs expressing events of ‘cooking’, ‘heating’ and ‘burning’ (591) - (593).

- (591) **wudi** ɲajipurburni
 wudi ɲaci-βuɿ~βuɿ=ni
 water 1SG.COOK.IRR-REDUP~boil=FUT
 ‘I want to boil the water.’ (PT: IG3-025-B)

- (592) **nin** **neŋinɸarbu**
 nin **ne-ŋin-ɸarbu**
 2SG.PRO 2SG.COOK.IRR-1SG.OBL-heat

‘Warm it up for me.’

(JoN: IG3-032-B)

- (593) **awu** **ŋaʒiβibirni**
 awu **ŋaci-biɿ~biɿ=ni**
 ANIM 1SG.COOK.IRR-REDUP~cook=FUT

‘I’m gonna cook up some meat.’

(JoN: IG3-025-B)

Events of ‘rising’, also classified by COOK (594) - (595), may be connected to events of heating in a metaphoric sense, based on the way heat rises. Perhaps more loosely connected in meaning is the event of ‘running away’, also classified by COOK (596).

- (594) **ceŋi** **waniric** **kiniβatkuzi**
 ceŋi waniric **kini-βat=kuzi**
 FIRE smoke 3SG.COOK.R.IPFV-rise=3SG.SIT.R.IPFV

‘Smoke is rising from the fire.’

(HK: 1972-MW-M02004364B)

- (595) **ŋiniβata** **waŋɗi** **niciŋani** **jeŋi** **ari**
ŋini-βat=a **waŋɗi** **niciŋani** **jeŋi** **ari**
 1SG.COOK.R.PFV-rise=PST after morning today DEM.1

‘I woke up late this morning.’

(PT: IG3-033-A)

- (596) **aŋar** **ŋandini** **ambu** **gininiparupandi**
 aŋar **ŋandi=ni** **ambu** **kinini-βarup=andi**
 PROX 2SG.SIT.IRR=FUT NEG 2SG.COOK.R.IPFV-run.away=APPR

‘Stay here, don’t run away.’

(PT: IG3-025-B)

Formally, COOK is very similar to the SWING classifier stem, but can be distinguished through the final /i/ vowel on the COOK forms, the fortition of the 1SG and 3SG IRREALIS COOK forms, and forms of 3SG.R.PFV and 2SG.IRR categories (see tables A.17 and A.11 in Appendix A for comparison of forms).

The HEAT classifier stem also occurs in a number of verbs with semantics associated with ‘heating’, ‘burning’ and ‘drying (things) out’. In contrast to COOK verbs in which the subject is always agentive, in HEAT verbs the subject is always fire or the sun. Due to this restricted choice of subject, HEAT has a reduced paradigm, containing only 3SG

forms for each TAM series (see table A.21 in Appendix A). Examples are given in (597) - (600), as well as an example pair demonstrating a contrast in agency which is reflected in the classifier choice between HEAT and COOK in (601).

(597) *peri daŋberijuka* *ceŋji*
peri da-ŋ-peri-juk=a *ceŋci*
 foot 3SG.HEAT.R.PFV-1SG.O-foot-burn=PST fire
 ‘My foot got burnt in the fire.’ (JoN: IG3-037-A)

(598) *wudi kidipurburpiŋikuzi*
wudi kidi-βuɿ~βuɿ-βiŋi=kuzi
 water 3SG.HEAT.R.IPFV-REDUP~boil-now=3SG.SIT.R.IPFV
 ‘The water’s boiling.’ (PT: IG3-019-A)

(599) *niŋ ŋandini na βandi kudijterni*
niŋ ŋandi=ni na βandi kudi-ŋ-ter=ni
 2SG.PRO 2SG.SIT.IRR=FUT LOC sun 3SG.CAUSE.IRR-2SG.O-warm=FUT
 ‘Sit in the sun, warm yourself up.’ (JoN: IG3-026-A)

(600) *wudi ji wudiɬadi daɬaka*
wudi ji wudizadi da-tak=a
 WATER DEM.3 billabong 3SG.HEAT.R.PFV-dry=PST
 ‘The billabong dried out.’ (PT: IG3-032-B)

(601) a. *jin ŋinijuka*
jin ŋiŋi-juk=a
 1SG.PRO 1SG.COOK.R.PFV-burn=PST
 ‘I burnt that beef.’ (PT: IG3-019-A)

b. *awu kudijukni*
awu kudi-juk=ni
 ANIM 3SG.HEAT.IRR-burn=FUT
 ‘The meat is going to get burnt.’ (JN: IG3-006-B)

5.4.6 TIE and FOLLOW

The TIE and FOLLOW classifier stems have probably developed from SAY/DO. Almost all TIE forms are identical to SAY/DO forms except for their vowel quality (TIE forms have a /u/ in the classifier root which often spreads to the vowel of the subject marker, while SAY/DO forms have an /i/ in the classifier root, or are nasal-final). FOLLOW forms are identical to those of TIE, with the addition of the suffix /ŋki/. Both the TIE and FOLLOW classifier stems are rare in the corpus. TIE co-occurs with only two lexical stems, concerned with ‘tying’ or ‘wrapping’ (602) - (603).

- (602) beg ŋumujent̩erka
 bek ŋumu-jen-t̩erk=a
 bag 1SG.TIE.R.PFV-nose-tie.up=PST
 ‘I tied up a bag.’ (PT: IG3-033-A)

- (603) jin pundi ŋumuŋinpundiŋuka
 jin pundi ŋumu-ŋin-pundi-cuk=a
 1SG.PRO hand 1SG.TIE.R.PFV-1SG.OBL-hand-wrap=PST
 ‘I wrapped a bandage around my hand.’ (PT: IG3-033-A)

FOLLOW co-occurs with four lexical stems in verbs which all express some type of ‘following’ event.⁸⁹

- (604) cer ŋirimuŋŋinwan̩ɰini
 cer ŋirimuŋki-ŋ-wan̩ɰi=ni
 1PL.PRO 1NSG.FOLLOW.IRR-2SG.O-after=FUT
 ‘Us mob are gonna follow you.’ (PT: IG3-024-B)

- (605) gumuŋŋinβuɰaŋgi
 kumuŋki-ŋ-βuɰ-aŋki
 3NSG.FOLLOW.R.IPFV-DU.S.INTR-chase-RECIP
 ‘Those two are chasing each other.’ (CP: RN5-001-A)

89. In the construction in (604), /wan̩ɰi/ is potentially an adverbial, which would mean FOLLOW functions as a simple verb here.

- (606) jin φeri ηumun̄giβeriηina kanipepeka
jin peri ηumun̄ki-peri=ηin=a kani-pek~pek=a
1SG.PRO foot 1SG.FOLLOW.R.IPFV-foot=1SG.GO.R.IPFV=PST 3SG.GO.R-REDUP~make.track=PST
peri
peri
foot
‘I was tracking it.’ (JoN: IG3-030-A)

- (607) ma gumun̄guwurguner, waᅇdiwuri
ma= kumun̄ki-wur=kuner waᅇti=wuri
MASC= 3SG.FOLLOW.R.IPFV-return=3SG.TRAVEL.R.IPFV after=TOWARDS
‘He’s following her, behind.’ (JJ: RN5-003-B)

5.5 Lexical stem

The lexical stem is generally a bound element which co-occurs with the classifier stem to comprise a bipartite verb. An example is given in (22), where the lexical stem */-mel-/* ‘stare’ follows the classifier stem and OBJECT marker and precedes a serial verb.

- (608) kaᅇi kuᅇᅇgidimelkuᅇi
kadi kudin-ᅇkidi-mel=kuzi
1DU.PRO 3SG.CAUSE.R.IPFV-1DU.O-stare=3SG.SIT.R.IPFV
‘That fella’s looking at us two.’ (JN: IG3-006-B)

The lexical stem takes this bound position in almost all of the bipartite verb data in the corpus, with two types of exceptions: bipartite verbs constructed with the SAY/DO classifier stem (§5.4.1) and a handful of imperative constructions. Examples (609) and (610) below contrast constructions where the lexical stem appears in its regular position as a bound verbal element (609a) and (610a), with imperative constructions where the lexical stem appears as an independent element. Bovern (2014, pp. 265, 282) finds that while in most environments coverbs must co-occur with inflecting verbs in Australian languages, there are exceptions in environments such as imperatives, non-finite clauses and narrative verb chaining.

- (609) a. ᅇβat
ᅇ-βat
2SG.COOK.IRR-rise
‘Stand up!’ (RK: 1972-MW-M02004364A)

- b. pat
βat
rise

‘Stand up!’

(RK: 1972-MW-M02004364A)

- (610) a. wanijibuta wanjijeta
wani-jibut=a wani-cet=a
3SG.GO.R.PFV-SWIM=PST 3SG.GO.R.PFV-SIT=PST

‘He kept swimming and then sat down.’

(JJ: 20080811-MC-WaterRat)

- b. cet ŋar ŋaniŋinmazi
cet ŋar ŋandi-ŋin-mazi
sit PROX 2SG.SIT.IRR-1SG.OBL-wait

‘Sit here and wait for me.’

(PT: IG3-021-B)

In most Australian languages with complex predicate constructions the uninflecting verb forms its own part of speech, though elements from other parts of speech such as adjectives, adverbs and nouns can also fill this role (McGregor 2002, p. 102; Bowern 2014, pp. 264–265). In Marri Ngarr almost all the forms used in the lexical stem slot are only observed in this lexical stem function. There are, however, a handful of instances where body part forms are used as lexical stems (611).

- (611) jin ŋuradini pundi jin
jin ŋur-ɹadi=ni pundi jin
1SG.PRO 1SG.HANDS.IRR-back=FUT hand 1SG.PRO

‘I’m going to hide.’

(PT: IG3-018-A)

The lexical stem is an uninflecting element, though reduplication of some lexical stems is common. Lexical stem reduplication is discussed in §5.5.1 while suppletion, which is exhibited by a small number of lexical stems, is addressed in §5.5.2. While the classifier stem contributes a range of information to bipartite verbs (and simple verbs), the contribution of the lexical stem is focused on lexical semantics (and argument structure - see §5.3.3.2). Determining the precise lexical semantics of lexical stems is not straightforward because lexical stems almost always form constructions with classifier stems, and both elements contribute lexical semantics to the verb. Many lexical stems only co-occur with one or two classifier stems and it can, therefore, be difficult to isolate the semantic contribution of either element (see §1.4 for my methodology on the glossing of lexical stems). The ability to distil the semantic input of the lexical stem is made slightly easier when a lexical stem co-occurs with a range of classifier stems. The following two example sets involve lexical stems which co-occur with a relatively large range of classifier stems and allow us to say something about the semantics of these lexical stems.

The lexical stem */-dim-/*, glossed ‘disappear’, co-occurs with five different classifier stems in the corpus. Based on comparison of these pairings the lexical semantics of */-dim-/* can be defined as the movement downwards of a referent, with the result being that the referent disappears from view. In (612a) and (612b) */-dim-/* combines with an INTRANSITIVE classifier stem and the verb denotes an event of movement of the subject argument in a downward trajectory. Note the difference in classifier stem for the verb denoting ‘sinking’ vs ‘(the sun) setting’: sinking involves movement directly downwards in the water and is classified by *STAND*, a stance classifier stem which often occurs on verbs denoting events which involve some kind of verticality (e.g. a person’s body standing). On the other hand, the sun setting involves movement downwards as the sun ends its arc across the sky and here */-dim-/* co-occurs with *GO* which is generally associated with horizontal movement (e.g. movement from one location to another). In (612c) the agent’s hands are the instrument that cause the movement downwards of the object, which is expressed through */-dim-/* combining with the *HANDS* classifier stem. (612d) involves */-dim-/* in a lexicalised phrase where the literal interpretation is approximately ‘I buried my ears about them’. In (612e) */-dim-/* co-occurs with the *BUMP* classifier stem and an *APPLICATIVE* to express an event of imprisoning someone, which is rendered as ‘cause to bury/conceal (someone)’.

- (612) a. *pandi kanidim* *βiŋi*
βandi kani-dim *βiŋi*
 sun 3SG.GO.R-disappear now
 ‘The sun is setting.’ (HK: 1972-MW-M02004365A)
- b. *naŋ na wudi jaŋadima*
naŋ na wudi caŋa-dim=a
 3SG.M.PRO LOC water 3SG.STAND.R.PFV-disappear=PST
 ‘He sank in the water.’ (JN: IG3-012-B)
- c. *naŋ ji ŋaridima* *na pirek*
naŋ ji ŋari-dim=a *na βirek*
 3SG.M.PRO DEM.3 1SG.HANDS.R.PFV-disappear=PST LOC ground
 ‘I buried it in the ground.’ (JN: IG3-012-B)
- d. *dim ŋimirðaŋaja*
dim ŋimi-wir-ŋaŋ=ja
 disappear 1SG.SAY/DO.R.PFV-3PL.OBL-ear=PST
 ‘I forgot about them.’ (JN: IG3-013-B)
- e. *welimidima*
βali-mi-dim=a
 3SG.BUMP.R.PFV-APPL-disappear=PST
 ‘He locked him up.’ (JN: IG3-007-A)

The lexical stem */-yurit-/*, glossed ‘turn’ co-occurs with four different classifier stems and these combinations tend to express meanings associated with twisting or turning, being misaligned or covering something. Example (613a) describes the twisting/turning of an instrument (presumably a rope) to form a knot to tie up the object, while (613b) describes the twisting action performed on the object.

- (613) a. **jin** **ɲawuritni**
jin **ɲa-yurit=ni**
1SG.PRO 1SG.SWING.IRR-turn=FUT
‘I’m gonna tie (that dog) up.’ (JN: IG3-007-B)
- b. **agwu** **kumunginkurirkambu**
a=ku=wu **kumbunkin-yurit=kambu**
ANIM=DEM.2=WU 1INCL.DU.PUT.R.IPFV-turn=1INCL.DU.SIT.R.IPFV
ajeri **gumburkat**
a=jeri **kumbur-kat**
ANIM=tail 1INCL.DU.HANDS.R.IPFV-chop
‘We twisted the tail and broke it off.’ (JoN: IG3-036-B)

In (614a) the combination of the body part noun and */-yurit-/* results in an interpretation where the subject ‘turn’s his/her back’, i.e. ‘hides’.⁹⁰ In (614b) there is a sense of misalignment: the instrument is aimed at, but misses its target (the object) and in (614c) the reduplicated lexical stem co-occurs with the same classifier stem, an incorporated body part and RECIPROCAL-marking to express ‘difference’ which is rendered as a metaphoric extension of ‘turning their backs (to each other)’. A final use of */-yurit-/* is seen in (614d) where the lexical stem combines with the HANDS classifier stem to express an action of ‘covering’.

- (614) a. **ɲinimbe** **ɲinɲinzadigiritɲaɲinaja**
ɲinimbe **ɲɲ-ɲin-zadi-yurit-nali-ɲa=a**
who 3SG.SWING.R.PFV-1SG.OBL-back-turn-3SG.ADJ-MAL=PST
‘Who’s hiding from me?’ (RK: 1972-MW-M02004364B)
- b. **jin** **ɲendi** **ɲinɲiribara** **wacen,**
jin **cendi** **ɲinɲiri-bar=a** **wacen**
1SG.PRO spear 1SG.PASS.R.PFV-throw=PST dog
ɲamgurita
ɲam-yurit=a
1SG.PIERCE.R.PFV-turn=PST
‘I threw a spear at that dog, I missed him.’ (N04158: IG3-035-A)

90. It is unclear why this construction also contains ADJUNCT-marking, and why the classifier stem is TRANSITIVE if this is an instance of subject incorporation.

- c. piminṭadikuritkuritkaṅgija
 pam-ṅ-zadi-**yurit**~**yurit**-kaṅki=ja
 3NSG.PIERCE.R.PFV-DU.S.INTR-back-REDUP~turn-RECIP=PST
 ‘Those two are different.’ (HK: 197207-MW-M02004363A)

- d. pariṅmiwurita
 pari-ṅ-mi-**yurit**=a
 3NSG.HANDS.R.PFV-1SG.O-eye-turn-PST
 ‘They covered my eye.’ (PT: IG3-034-A)

5.5.1 Reduplication

Many of the lexical stems in the corpus can appear in reduplicated form, as in /-*βap*-/ ‘transfer’ in (615) below. A description of the phonology of lexical stem reduplication is provided in §2.3.6.

- (615) naṅji guβaβapaṅgiguli
 naṅci ku-βap-βap-aṅki=kuli
 THING 3NSG.MOUTH.R.IPFV-REDUP-transfer-RECIP=3PL.SIT.R.IPFV
 ‘They are giving things to each other.’ (JJ: RN5-003-B)

Reduplication of lexical stems in Marri Ngarr usually creates pluractional meanings. For telic events, this manifests as iterative interpretations of the event, while for atelic events it results in durative interpretations. While iterativity/durativity are the most common interpretations of verbs containing lexical stem reduplication in Marri Ngarr, there is also evidence that reduplicated lexical stems can express plural participant meanings. Fabricius (1998, p. 135) finds that all Australian languages which exhibit verbal reduplication utilise it for these ‘iconic’ meanings (iterativity/ durativity of the event), while only those Australian languages for which reduplication is a more integral part of the system also employ it for less iconic meanings such as plural participants, spatial distribution, intensification and habitual meanings.

The following examples demonstrate the meaning distinctions in telic/atelic verbs containing reduplicated lexical stems. In (616) which expresses a telic event, the lexical stem /-*zip*-/ ‘pinch’ appears unreduced when it expresses one instance of ‘pinching’ (616a), while multiple pinching events are expressed through the reduplicated form (616b). In (617a), we see an atelic verb with an unreduced lexical stem form /-*wele*-/ ‘hang’, while in (617b) the same verb takes a reduplicated form of the lexical stem to express durativity of the activity: an ongoing state of being up in the trees.

- (616) a. ṅariṅintipa pundi jin ṅiṅṅiṅar
 ṅari-ṅin-**zip**=a pundi jin ṅiṅci-ṅar
 1SG.HANDS.R.PFV-1SG.OBL-pinch=PST hand 1SG.PRO one-PROX
 ‘I pinched myself one time.’ (PT: IG3-035-B)

- b. η iri η int η ip η inar η alpu
 η iri- η in- \dot{z} ip \sim \dot{z} ip= η in=a η alpu
 1SG.HANDS.R.IPFV-1SG.OBL-REDUP \sim pinch=1SG.GO.R.IPFV=PST many
 ‘I was pinching myself a lot.’ (PT: IG3-035-B)

- (617) a. ka η gi η umbunweleni \dot{t} awur ar
 ka η ki η umbun-wele=ni \dot{t} awur ar
 1INCL.DU.PRO 1INCL.DU.GO.IRR-hang=FUT tree DEM.1
 ‘Let’s us two climb in this tree.’ (HK: 1972-MW-M02004364A)

- b. na \dot{t} awur jin wu η unweleweleni, ka η iza
 na \dot{t} awur jin =wu η un-wele \sim wele=ni ka η i=za
 LOC tree 1SG.PRO =EMPH 1SG.GO.IRR-REDUP \sim hang=FUT 1SG.SIT.R=AWAY
 η unni jin wu
 η un=ni jin =wu
 1SG.GO.IRR=FUT 1SG.PRO =EMPH
 ‘I’m going to climb in the trees, that’s where I’m going to be.’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

Another example pair demonstrates an aspectual contrast involving the same event. The unreduplicated lexical stem and PERFECTIVE form of the classifier stem in (618a) provide an interpretation where the natural endpoint of the event has been reached, while the reduplicated lexical stem and IMPERFECTIVE classifier stem form (of a different classifier stem) in (618b) creates an interpretation where this endpoint has not been reached.

- (618) a. niwir ji ϕ intaka
 niwir ji pip- \dot{t} ak=a
 3PL.PRO DEM.3 3NSG.SWING.R.PFV-build=PST
 ‘They built (a house).’ (JN: IG3-008-A)

- b. gunmel \dot{t} atak
 kunmel- \dot{t} ak \sim \dot{t} ak
 3PL.GO.R.IPFV-REDUP \sim build
 ‘They are building (a house).’ (JN: IG3-008-A)

While the reduplicated telic event in (616) demonstrated complete repetition of the event, including the action being performed on the same (reflexive) object, the following set of examples shows that reduplicated lexical stems can also encode a repeated event where a different object is involved in each instance of the event. This encoding of plural participant in conjunction with repeated event is commonly found in reduplication constructions in the corpus.

- (619) a. wiriꞥ ɬawur ŋiŋɟi adiperduka
 wiriꞥ ɬawur ŋiŋci adi-**peri-duk**=a
 wind tree one 3SG.CAUSE.R.PFV-foot-**pull**=PST
 ‘The wind knocked one tree down.’ (JoN)
- b. wiriꞥ gila kwanija ɬawur
 wiriꞥ kila kwani=a ɬawur
 wind big 3SG.GO.R=PST tree
 kidinperitudukanija
 kidin-**peri-duk**~**duk**=kani=ja
 3SG.CAUSE.R.IPFV-foot-**REDUP**~**pull**=1SG.SIT.R.IPFV=PST
 ‘A big wind came and knocked all the trees down.’ (PT: IG3-031-B)
- (620) a. wacen ŋumumaŋɟiɬerka
 wacen ŋumu-**maŋti-ɬerk**=a
 dog 1SG.TIE.R.PFV-neck-**tie.up**=PST
 ‘I tied up the dog.’ (JoN: IG3-033-A)
- b. wacen ji ŋalpu numunbirmaŋɟiɬeɬerka
 wacen ji ŋalpu ŋumu-**mbir-maŋti-ɬerk**~**ɬerk**=a
 dog DEM.3 many 1SG.TIE.R.PFV-3PL.O-neck-**REDUP**~**tie.up**=PST
 ‘I tied up a lot of dogs.’ (PT: IG3-033-A)

A serial classifier is often present in a verb with a reduplicated lexical stem. Usually events marked by both a reduplicated lexical stem and a serial classifier can be interpreted as occurring over a relatively extended period of time. This continuity may apply to either an atelic event (621), or a telic event which is conceived of as happening several times over an extended time period (622). Note that the serial classifier can only occur on a verb which does not take a stance/motion classifier stem: stance/motion classifier stems can themselves mark this aspectual information (§7.1.3).

- (621) kingarijijunggaŋi
 ki-ŋ-kari-**juŋ-juŋ**=kani
 3SG.MOUTH.R.IPFV-1SG.O-shoulder-**REDUP**~**hurt**=3SG.GO.R.IPFV
 ‘I’ve got pain in my shoulder.’ (JoN: IG3-030-A)

(622) nađi kiningipuβuƙaniƙa
 nadi kinin-ŋki-βuɿ~βuɿ=kandi-ŋ=a
 2DU.PRO 2NSG.FEET.R.IPFV-DU.S-REDUP~break=2.SIT.R.IPFV-DU.S.INTR=PST
 ceŋji ƙawur
 ceŋci ƙawur
 FIRE tree

‘You two were breaking up wood for the fire.’ (PT: IG3-016-A)

Lexical stems which demonstrate the ability to reduplicate in the corpus are consistently reduplicated when they appear in reciprocal constructions marked by the RECIPROCAL marker /-(k)anƙi/. Example (623a) below is a candidate for lexical stem reduplication as it contains a dual subject and involves two events of smelling; however the unreduplicated form is present (see discussion of optionality below). In contrast, the reciprocal construction in (623b) with the same subject contains the reduplicated form of the lexical stem. Presumably this tendency to reduplicate the lexical stem in reciprocal constructions is based in the inherent pluractionality of reciprocal events.

(623) a. niwijn wacen cicuk ari pamuŋgijaja
 niwijn wacen cicuk ari pam-ŋki-ŋa=ja
 3DU.PRO dog two DEM.1 3NSG.PIERCE.R.PFV-DU.S-smell=PST
 ŋiŋjiŋali
 ŋiŋciŋali
 different

‘Those two dogs smelt something different.’ (IG3-023-B)

b. wacen cicuk ji
 wacen cicuk ji
 dog two DEM.3
 kumuŋeŋekangikunƣijaŋ
 kumun-ŋe~ŋe-kaŋki=kunƣijaŋ
 3NSG.PIERCE.R.IPFV-REDUP~smell-RECIP=3DU.STAND.R.IPFV

‘Those two dogs can smell each other.’ (PT: IG3-023-B)

Some lexical stems are always reduplicated in the corpus. Usually these are semelfactive verbs: verbs which are inherently iterative in that one instance of the event involves multiple instances of that event; e.g. ‘knocking on a door’ involves multiple instances of knocking. Some examples are given below.

(624) awu ŋijnzuzupa
 awu ŋijn-zup~zup=a
 ANIM 1SG.SWING.R.PFV-REDUP-skin=PST

‘I skinned an animal.’ (JoN: IG3-025-A)

(625) kariŋmencujukuŋi
kar-ŋ-men-cuk~cuk=kuŋi
3SG.HANDS.R.IPFV-1SG.O-arm-REDUP~rub=3SG.SIT.R.IPFV
‘He’s rubbing my arm.’ (RK: 1972-MW-M02004364B)

(626) arwidicwidic tamin
ar-widic~widic =zamin
2SG.HANDS.IRR-REDUP~shake =AWAY
‘Shake that.’ (HK: 1972-MW-M02004365A)

Reduplication of the lexical stem is optional for the expression of pluractionality, though it is common in forms which can reduplicate. The unreduplicated lexical stem in (627a) is used as an alternative for the reduplicated form in (627b) to express the same iterative event. There is also some speaker variation in the corpus with regard to reduplication of particular lexical stems. Considering the verb ‘cook’, which is rendered through the combination of the COOK classifier stem and the lexical stem /-biɬ-/, the lexical stem consistently takes the reduplicated form for five speakers, e.g. (628a), while one speaker consistently used the unreduplicated form (628b).⁹¹

(627) a. naɟi katidibacni
nadi kadi-didi-βac=ni
2DU.PRO 3SG.FEET.IRR-2DU.O-kick=FUT
‘He’s going to kick you two.’ (JN: IG3-010-B)

b. naɟi katidibacbackawani
nadi kadi-didi-βac~βac=kawu=ni
2DU.PRO 3SG.FEET.IRR-2DU.O-REDUP-kick=3SG.SIT.IRR=FUT
‘He’s going to kick you two.’ (JN: IG3-010-B)

(628) a. naɟimbibibiɟni
naci-mbi-biɬ~biɬ=ni
1SG.COOK.IRR-2SG.OBL-REDUP~cook=FUT
‘I’ll cook it for you.’ (JoN: IG3-024-B)

b. awu naɟibiɟni nicijani
awu naci-biɬ=ni nicijani
ANIM 1SG.COOK.IRR-cook=FUT tomorrow
‘I’m going to cook the beef tomorrow.’ (UNK: 196905-DT-DO1009402)

91. The function of reduplication on this verb is unclear, as it does not appear to express pluractionality. Perhaps this verb is considered a semelfactive in the language.

5.5.2 Suppletion

While we saw in §5.5.1 that lexical stem reduplication can mark both repeated action and plural argument on the same verb, non-subject plural arguments can also be marked in isolation by suppletive lexical stems. Only a small number of lexical stems display a suppletive form in the corpus. These forms, their singular equivalents and an approximate English gloss are given below.

Regular form	Plural argument suppletive form	English gloss
/-bac-/	/-pur-/	‘hold’
/-at-/	/-zuc-/	‘pick up’
/-kurp-/	/-zɑɫ-/	‘hit’
/-zip-/	/-zap-/	‘spear’
/-kat-/	/-cur-/	‘cut’

Table 5.8: Regular and suppletive lexical stems forms

The distinction in argument number marked by the form of the lexical stem is demonstrated in (629) - (630) below, where a single instance of an event of ‘bringing’ or ‘picking up’ is expressed in all examples; however only the clauses involving a plural object, (629b) and (630b), have a suppletive form of the lexical stem.

- (629) a. wudi ti ɲirbaɬa
wudi ti ɲir-bac=a
WATER tea 1SG.HANDS.R.IPFV-**hold**=PST
‘I brought the tea.’ (HK: 1972-MW-M02004365A)
- b. kwani wuri awu aɲalpu
kwani =wuri awu a=ɲalpu
3SG.GO.R =TOWARDS ANIM ANIM=**many**
kipurkwani
ki-pur=kwani
3SG.MOUTH.R.IPFV-**hold**.PL=3SG.GO.R.IPFV
‘He’s coming with a lot of meat.’ (PT: IG3-023-A)
- (630) a. amɲinat manɲu
am-ɲin-at manɲku
2SG.PIERCE.IRR-1SG.OBL-**pick.up** cup
‘Pick up the cup for me.’ (RK: 197207-MW-M02004363A)

- b. *naŋji ŋalpu amiŋinduc*
naŋci ŋalpu am-ŋin-zuc
 THING many 2SG.PIERCE.IRR-1SG.OBL-pick.up.PL

‘You gotta pick up a bunch of things for me.’ (JoN: IG3-022-A)

Examples (631) - (632) demonstrate that only non-subject arguments trigger the use of the suppletive form: the lexical stem form is not affected by plural subjects. In (631b) we see the suppletive form occurring on a verb with a plural object, but we see no change in the form of the lexical stem when the subject is plural (632b), cf. (632a). Considering that (632b) (presumably) involves multiple spearing events, the lack of the suppletive form on this example also demonstrates that suppletive lexical stems only mark plural arguments and do not also mark iterativity/durativity.

- (631) a. *awu aŋiŋji ŋiriŋdipa*
awu a=ŋiŋci ŋiriŋ-zip=a
 ANIM ANIM=one 1NSG.SWING.R.PFV-spear=PST

‘We speared one animal.’ (PT: IG3-023-B)

- b. *awu aŋalpu ŋiriŋdapa*
awu a=ŋalpu ŋiriŋ-zap=a
 ANIM ANIM=many 1NSG.SWING.R.PFV-spear=PST

‘We speared many animals.’ (PT: IG3-023-B)

- (632) a. *kiniŋdipandi* *jin*
kin-ŋ-zip=andi *jin*
 3SG.SWING.R.IPFV-1SG.O-spear=APPR 1SG.PRO

‘He might spear me.’ (JN: IG3-014-A)

- b. *ner meriŋ ŋiniŋdipnamandi*
ner meriŋ piniŋ-ŋ-zip=nim=andi
 2PL.PRO MIGHT 2NSG.SWING.R.IPFV-1SG.O-spear=AUG=APPR

‘You mob might spear me.’ (JN: IG3-014-A)

Two of the suppletive forms, /-zuc-/ ‘pick.up.PL’ and /-zaŋ-/ ‘hit.PL’, can also appear in reduplicated form, with the combination of reduplication and suppletive forms perhaps suggesting the marking of both iterativity/durativity as well as plural non-subject argument.

(633) a. η umatni β ini je η i ari
 η um-at=ni β ini je η i ari
 1SG.PIERCE.IRR-pick.up=FUT now today DEM.1
 ‘I’m picking it up now.’ (JN: IG3-014-A)

b. mundak naja η ali nin ζ uzu ζ a
 mundak naja η ali η in-zuc-zuc=a
 previously PST REP 1SG.GO.R.IPFV-REDUP~pick.up.PL=PST
 ‘I picked them all up before.’ (JN: IG3-014-A)

(634) a. na η β ini ka η gurpni
 na η β ini ka- η -kurp=ni
 3SG.M.PRO now 3SG.SWING.IRR-1SG.O-hit=FUT
 ‘He’s going to hit me.’ (JN: IG3-013-A)

b. na η ji ka η gidi ζ a ζ ani
 na η ji ka- η kidi-z α ζ ~z α ζ =ni
 3SG.M.PRO DEM.3 3SG.SWING.IRR-1DU.O-REDUP~hit.PL=FUT
 ‘He’s going to hit us two.’ (JN: IG3-007-A)

The data also suggests that /-z α ζ -/ ‘hit.PL’ is not strictly the plural argument equivalent of /-kurp-/ ‘hit’. This is because /-z α ζ -/ can also be used with singular non-subject arguments in iterative/durative contexts (635) - (636), suggesting that the suppletive ‘hit’ form covers more semantic range than other suppletive lexical stems. This may be due to idiosyncratic restrictions on the use of /-kurp-/, which never reduplicates, and cannot co-occur with incorporated body parts (§8.1.3). In these situations, /-z α ζ -/ is used instead, e.g. (637).

(635) jeri η alpu η ile ζ e ζ ka η i ζ a
 jeri η alpu η il-z α ζ ~z α ζ =ka η i= ζ a
 WEAP many 1SG.BUMP.R.IPFV-REDUP-hit.PL-1SG.SIT.R.IPFV=PST
 ‘I punched him a few times.’ (PT: IG3-032-A)

(636) aa kuradaja β ini
 aa kuzi-z α ζ ~z α ζ =a β ini
 oh 3SG.SIT.R-REDUP-hit.PL=PST now
 ‘He kept on hitting (the fruit).’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

- (637) η ulipizaja pu η idit je η i ka η a η arin
 η uli-pi-za η =ja pu η idit je η i karila = η arin
 1SG.BUMP.R.PFV-head-hit.PL=PST head WEAP rock =INSTR
- ‘I hit him in the head with a rock.’ (HK: 1972-MW-M02004364A)

5.6 Pronominal marking

This section provides a description of the bound pronominal agreement marking system on the verb. As previously described in §3.2 four pronominal markers, SUBJECT, OBJECT, OBLIQUE and ADJUNCT, are used on the verb. These markers inflect for person and number (SUBJECT markers are also distinguished for TAM) and formal similarities are found across all of these markers (as well as with the independent personal pronouns). These formal similarities are described below in §5.6.1, and this is followed by more detailed discussion of the functions of each pronominal marker in §5.6.2 - §5.6.5.

5.6.1 Formal characteristics

This section outlines the category distinctions and formal characteristics of the four pronominal agreement markers on the verb: SUBJECT, OBJECT, OBLIQUE and ADJUNCT. Formal similarities can be found in feature-matched forms across these pronominal markers (as well as the free personal pronoun forms), and some of these similarities can be related back to Proto non-Pama-Nyungan pronouns (Blake 1988; Harvey 2003). The SUBJECT marker forms part of the larger classifier stem unit. SUBJECT-marking prefixes are given in table 5.9. Classifier stems are distinguished formally for TAM features, while non-SUBJECT pronominal markers do not exhibit TAM distinctions and their forms are given separately in table 5.10.⁹² As free personal pronouns share formal characteristics with the bound pronominal markers, free personal pronoun forms are also given in table 5.10 for comparison.

	R.IPFV	R.PFV	IRR
INCL DU	/kumbu-/	/ η umbu-/	/ η umbu-/
1 SG	/ η i-/	/ η V-/	/ η V-/
NSG	/ki(ri)-/	/ η i(ri)-/	/ η i(ri)-/
2 SG	/kin(d)i-/	/ η in(d)i-/	/a-/ (/ η ini-/) (<i>irregular</i>)
NSG		/nV-/	/nV-/
3 SG	/kV-/	/a-/ (<i>irregular</i>)	/kV-/
NSG	/ku-/	/pV-/	/pi(ri)-/

Table 5.9: Regular subject pronominal forms (grouped by person)
 Based on Green (1993a)

92. The full paradigm of forms of the ADJUNCT marker does not appear in the corpus; missing forms are taken from Green (1993b) and coloured grey in the tables.

		OBJECT	OBLIQUE	ADJUNCT	PERSONAL PRONOUNS
1	INCL DU	/-(ŋ)ki/	/-(ŋ)ki/	/-ŋkali/	/kaŋki/
	SG	/-ŋ/	/-ŋin/	/-ŋinali/	/jin/
	DU	/-(ŋ)kidi/	/-ŋij/	/-ŋijali/	/kadi/
	PL	/-(ŋ)kir/	/-(ŋ)kir/	/-ŋkirali/	/cer/
2	SG	/-ɲ/	/-(m)bi/	/-pali/	/niɲ/
	DU	/-(n)didi/	/-niɲ/	/-niɲali/	/nadi/
	PL	/-(n)dir/	/-(n)dir/	/-tirali/	/ner/
3	SG		/-ni/ (/ -zi/, /-li/)	/-nali/	/naŋ/
		MASC			
		FEM	/-ŋ/	/-ŋali/	/ŋa/
	DU	/-widi/	/-wiɲ/	/-wiɲali/	/niwiɲ/
	PL	/-(m)bir/	/-wir/	/-wirali/	/niwir/

Table 5.10: Regular non-subject pronominal markers and independent personal pronouns (grouped by person)

Based on Green (1993b)

Comparison of forms across tables 5.9 and 5.10 illustrates some formal similarities in person marking across the four pronominal markers and the free personal pronouns (REALIS IMPERFECTIVE subject-marking forms, which are consistently velar-initial, are excluded from the following discussion - see section §7.1 for description of the classifier stem forms of this TAM series). First person forms across all four pronominal markers are marked by an initial velar segment/cluster, 2NSG forms are all alveolar-initial and 3NSG are bilabial-initial.⁹³ Across the markers that possess a gender distinction in the 3SG, the MASC form contains an initial alveolar nasal, while the FEM form is marked by an initial velar nasal. These person and gender distinctions marked by place contrasts are reflective of reconstructed non-Pama-Nyungan free pronouns (Blake 1988). Blake reconstructs **ŋaj* for 1SG, **nu-rV* as one form for 2NSG and **pu-rV* for 3NSG. He also posits **nu* for 3SG and **ŋaja* for 3SG.F (Blake 1988, p. 7). For these person categories, the initial segments have permeated through the whole bound pronominal marking system in Marri Ngarr, presumably originating in the free personal pronoun forms: development in the direction of free form to bound is assumed by Blake (1988, p. 12).

The brackets in table 5.9 indicate that the SUBJECT-marking forms of some classifier stems for 1NSG and 3NSG.IRR categories are realised as /C_[velar]i-/ compared to the regular /C_[velar]iri-/ form and some 2.R.IPFV and 2SG.R.PFV forms are /C_[velar]indi-/ instead of the regular /C_[velar]ini-/. Generally these alternate forms are realised on classifier stems with alveolar-initial roots (GO, BUMP, HANDS and CAUSE); however other classifier stems with alveolar-initial roots (FEET and PUT.R.IPFV) take the regular SUBJECT-marking form so it is unclear what triggers the difference in form. Examples of alternate SUBJECT-marking forms are given in (638) and (640) while regular forms occurring on classifier stems with alveolar-initial roots are shown in (639) and (641).

93. This statement assumes that the (peripheral) labio-velar /w/ can pattern with bilabial or velar consonants.

- (638) *kaɖi ɲidiŋgiβaɖuni*
kadi ɲidi-ɲki-βadu=ni
 1DU.PRO 1NSG.CAUSE.IRR-DU.S-push=FUT
 ‘We’re going to push it.’ (JN: IG3-013-A)
- (639) *kaɖi ɲiriniŋgiβuɟa*
kadi ɲirini-ɲki-βuɟ=a
 1DU.PRO 1NSG.FEET.R.PFV-DU.S-break=PST
 ‘We two (EXCL) broke it.’ (PT: IG3-019-A)
- (640) *kindilkatandi*
kindil-kat=andi
 2SG.BUMP.R.IPFV-cut=APPR
 ‘You might cut (that tree).’ (JN: IG3-009-B)
- (641) *niɲ ɲata kininginɔ̃atkandi*
niɲ ɲata kininkin-ɬat=kandi
 2SG.PRO house 2SG.PUT.R.IPFV-put.down=2SG.SIT.R.IPFV
 ‘You’re building a house.’ (PT: IG3-032-B)

While there are enough 2SG.IRR and 3SG.R.PFV classifier stems which take the /a-/ form to call it the regular form, there is also a lot of irregularity in these two categories. Classifier-internal forms in these two categories are often homophonous.

Bracketing in the OBJECT and OBLIQUE columns of table 5.10 shows free variation in some of these forms. The absence of the initial nasal in these forms is often triggered by a classifier root which contains a nasal coda⁹⁴ e.g. (642a), compared with (642b) in which the classifier root consists only of a single nasal segment (as opposed to a nasal *coda*) and (642c) in which the classifier root has a final oral consonant (both of these environments instead trigger vowel epenthesis (§2.3.1)). However, other times the form varies in the same phonological environment, as in (643) where variation is found following a lateral sonorant.

94. Nasal codas are present on the REALIS IMPERFECTIVE forms of PIERCE, CAUSE and PUT.

- (642) a. **niŋ** **kininginbikulkinijaŋ**
 niŋ kininkin-mbi-kul=kinijaŋ
 2SG.PRO 2SG.PUT.R.IPFV-2SG.OBL-bend=2SG.STAND.R.IPFV
 ‘You’re bending over.’ (PT: IG3-032-A)
- b. **jin** **ŋumumbiparatni**
 jin ŋum-mbi-βarat=ni
 1SG.PRO 1SG.PIERCE.IRR-2SG.OBL-grab=FUT
 ‘I’ll grab it for you.’ (PT: IG3-021-B)
- c. **cendi** **ŋurimbiyatini**
 cendi ŋur-mbi-yati=ni
 spear 1SG.HANDS.IRR-2SG.OBL-create=FUT
 ‘I’ll make a spear for you.’ (RK: 197207-MW-M02004363A)

- (643) a. **wacki** **ŋuldidimudini**
 wacki ŋul-didi-mudi=ni
 later 1SG.BUMP.IRR-2DU.O-see=FUT
 ‘I want to see you two later.’ (JN: IG3-009-A)
- b. **ŋulindididapŋawani**
 ŋul-ndidi-zap=ŋawu=ni
 1SG.BUMP.IRR-2DU.O-spear=1SG.SIT.IRR=FUT
 ‘I’m going to spear you two fellas.’ (JN: IG3-013-B)

All four sets of bound pronominal markers distinguish first (including an INCL/EXCL distinction), second and third person. Example (234) illustrates this distinction for the SG (and INCL) forms of the OBLIQUE marker.

- (644) a. **naŋ** **ji** **mengija**
 naŋ ji me-ŋki=ja
 3SG.M.PRO DEM.3 3SG.SAY/DO.R.PFV-1INCL.DU.OBL=PST
 ‘He told us two (INCL).’ (JN: IG3-007-A)
- b. **naŋ** **mari tindiŋ meŋina**
 naŋ mari tindiŋ me-ŋin=a
 3SG.M.PRO LANG secret 3SG.SAY/DO.R.PFV-1SG.OBL=PST
 ‘He told me a secret.’ (PT: IG3-035-A: 58)

- c. *naŋ βindi membija*
naŋ βindi me-mbi=ja
 3SG.M.PRO WHERE 3SG.SAY/DO.R.PFV-2SG.OBL=PST
 ‘What did he say to you?’ (JN: IG3-006-A)

- d. *ŋiminija naŋ mari*
ŋimi-ni=ja naŋ mari
 1SG.SAY/DO.R.PFV-3SG.M.OBL=PST 3SG.M.PRO LANG
 ‘I told him.’ (HK: 1972-MW-M02004364B)

The INCL category in the first person is inherently DUAL. The distinction between 1DUAL INCL and 1DUAL EXCL is illustrated below for the SUBJECT (645), OBJECT (646) and OBLIQUE (647) markers.⁹⁵ Note that unlike NSG EXCL forms, 1INCL.DU forms cannot take the DUAL SUBJECT marker /-ŋki/ ~ /-ŋ/. PLURAL interpretations of INCL forms are rendered with the addition of the PAUCAL marker /=nim/ (§6.2).

- (645) a. *ŋumbulkatni*
ŋumbul-kat=ni
 1INCL.DU.BUMP.IRR-cut=FUT
 ‘You and me are going to cut it.’ (JNg: 196905-DT-DO1009402)

- b. *ŋilingikatni*
ŋili-ŋki-kat=ni
 1NSG.BUMP.IRR-DU.S-cut=FUT
 ‘Us two (EXCL) are going to cut it.’ (JNg: 196905-DT-DO1009402)

- (646) a. *naŋ ji kawungitaŋani*
naŋ ji kawu-ŋki-zaŋ~zaŋ=ni
 3SG.M.PRO DEM.3 3SG.SIT.IRR-1INCL.DU.O-REDUP~hit.PL=FUT
 ‘That fella’s gonna beat up you and me.’ (JN: IG3-006-B)

- b. *naŋ ji kuzi kaŋi gawungadaŋani*
naŋ ji kuzi kadi kawu-ŋkidi-zaŋ~zaŋ=ni
 3SG.M.PRO DEM.3 3SG.SIT.R 1DU.PRO 3SG.SIT.IRR-1DU.O-REDUP-hit.PL=FUT
 ‘That fella’s gonna belt up us two (EXCL).’ (JN: IG3-006-B)

95. The DUAL SUBJECT marker is distinct from but homophonous with the 1INCL.DU OBJECT and OBLIQUE markers. The 1INCL.DU OBJECT and OBLIQUE markers could alternately be conflated into one category which does not distinguish grammatical function.

- (647) a. *naŋ ji mengija*
naŋ ji me-ŋki=ja
 3SG.M.PRO DEM.3 3SG.SAY/DO.R.PFV-1INCL.DU.OBL=PST
 ‘He told us two (INCL).’ (JN: IG3-007-A)
- b. *mari meŋiŋa*
mari me-ŋiŋ=a
 LANG 3SG.SAY/DO.R.PFV-1DU.OBL=PST
 ‘He told us two fellas (EXCL).’ (JN: IG3-007-A)

The gender distinction present in the 3SG OBLIQUE and ADJUNCT-marking forms (and also found in the free personal pronoun forms) is illustrated in (648) for the OBLIQUE markers. The OBLIQUE MASC form varies depending on the final consonant of the classifier stem which precedes it. As shown in (648a) its form is generally /-ni/; however when the classifier stem is /r(i)/-final, the 3SG.M.OBL form is /-zi/ (649); when it is /l(i)/-final, the form is /-li/ (650), i.e. it forms a geminate. See also §2.3.5.2.

- (648) a. *cibeka wuri aminet naŋ*
ciβaki =wuri am-ni-at naŋ
 tobacco =TOWARDS 2SG.PIERCE.IRR-3SG.M.OBL-pick.up 3SG.M.PRO
ji
ji
 DEM.3
 ‘Bring him some tobacco.’ (JN: IG3-013-B: 58)
- b. *cibeka wuri amuŋat*
ciβaki =wuri am-ŋ-at
 tobacco =towards 2SG.PIERCE.IRR-3SG.F.OBL-pick.up
 ‘Bring her some tobacco.’ (JN: IG3-013-B: 59)

- (649) *ŋarziβuŋaja* *cendi naŋ*
ŋari-ni-βuŋ-ŋa=ja *cendi naŋ*
 1SG.HANDS.R.PFV-3SG.M.OBL-break-MAL=PST spear 3SG.M.PRO
 ‘I broke his spear on him.’ (HK: 1972-MW-M02004364B)

- (650) *pallimudija*
pali-ni-mudi=ja
 3SG.BUMP.R.PFV-3SG.M.OBL-see=PST
 ‘He saw himself.’ (JoN: IG3-027-A)

A marker /ni-/ can co-occur with minimal OBJECT/OBLIQUE forms, i.e. 1INCL.DU and EXCL SG forms, to cross-reference the number features of the subject. /ni-/ co-occurs with EXCL SG OBJECT/OBLIQUE markers to cross-reference the subject as DUAL (651), or with 1INCL.DU OBJECT/OBLIQUE markers to cross-reference the subject as either DUAL or PLURAL (652). This number marker is further described in §6.1.2.

(651) niwip ma ji puliningata
 niwip ma= ji puli-ni-ŋ-yat=a
 3DU.PRO MASC= DEM.3 3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1SG.O-pass=PST
 ‘Those two went past me.’ (PT: IG3-033-B)

(652) niwir ma ji puliningigatnima
 niwir ma= ji puli-ni-ŋki-yat=nim=a
 3PL.PRO MASC= DEM.3 3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1INCL.DU.O-pass=AUG=PST
 ‘They went right past us.’ (PT: IG3-026-B)

Paradigms for the bound pronominal markers are given again in tables 5.11 and 5.12, this time grouped by number. Viewed this way, it is apparent that formal characteristics of number features also recur throughout the pronominal system (mostly in the non-SUBJECT markers).

		R.IPFV	R.PFV	IRR
INCL.DU		/kumbu-/	/ŋumbu-/	/ŋumbu-/
SG	1	/ŋi-/	/ŋV-/	/ŋV-/
	2	/kin(d)i-/	/ŋin(d)i-/	/a-/ ~ /ŋini-/ (irregular)
	3	/kV-/	/a-/ (irregular)	/kV-/
NSG	1	/ki(ri)-/	/ŋi(ri)-/	/ŋi(ri)-/
	2	/kin(d)i-/	/nV-/	/nV-/
	3	/ku-/	/pV-/	/pi(ri)-/

Table 5.11: Regular subject pronominal markers (grouped by number)
 Based on Green (1993a)

		OBJECT	OBLIQUE	ADJUNCT	Personal pronouns
	INCL.DU	/-(ŋ)ki/	/-(ŋ)ki/	/-ŋkali/	/kaŋki/
SG	1	/-ŋ/	/-ŋin/	/-ŋinali/	/jin/
	2	/-ɲ/	/-mbi/	/-pali/	/niɲ/
	3	MASC FEM	/-ni/ (/zi/, /li/)	/-nali/	/naŋ/
DU	1	/-(ŋ)kidi/	/-ŋiɲ/	/-ŋiɲali/	/kadi/
	2	/-(n)didi/	/-niɲ/	/-niɲali/	/nadi/
	3	/-widi/	/-wiɲ/	/-wiɲali/	/niwiɲ/
PL	1	/-(ŋ)kir/	/-(ŋ)kir/	/-ŋkirali/	/cer/
	2	/-(n)dir/	/-(n)dir/	/-tirali/	/ner/
	3	/-(m)bir/	/-wir/	/-wirali/	/niwir/

Table 5.12: Regular non-subject pronominal markers and independent personal pronouns (grouped by number)

Based on Green (1993b)

Non-SUBJECT PLURAL forms are almost always /r/-final (the ADJUNCT marker involves a suffix which follows the /r/), as are some 1 and 3 NSG SUBJECT forms. This results in homophony between 1PLURAL OBJECT and OBLIQUE markers, and 2PLURAL OBJECT and OBLIQUE markers.⁹⁶ PLURAL free pronoun forms are also /r/-final. A NSG marker *-rV is identified for Proto non-Pama-Nyungan free pronouns (Blake 1988, p. 7) and is also reconstructed as a Proto non-Pama-Nyungan NSG verbal prefix (Harvey 2003, p. 482). Two patterns are observed for DUAL EXCL forms: DUAL OBJECT forms take /di/, a marker which is also found on some DUAL free pronouns. This type of DUAL marking is distinct from that found on DUAL OBLIQUE forms, which take /ɲ/. The DUAL number marker /ɲ/ on OBLIQUE forms is possibly related to the DUAL SUBJECT number marking form /ɲ/ which co-occurs with some INTRANSITIVE classifier stems (see §6.1 and §5.3.3.1). 3 DUAL and PLURAL free pronouns take an additional /ni-/ syllable initially but are otherwise identical to the equivalent OBLIQUE markers.

Concerning the number distinctions encoded by the pronominal markers, SUBJECT forms exhibit a SG/NSG distinction (653).⁹⁷

- (653) a. mari ŋiminija
 mari ŋimi-ni=ja
 word 1SG.SAY/DO.R.PFV-3SG.M.OBL=PST

‘I told him.’

(JN: IG3-011-A: 72)

96. These categories could alternately be viewed as not discriminating for grammatical function.

97. However, LIE and STAND classifier stems also have DUAL SUBJECT forms (§6.1.1).

- b. *ceri cuja njiriminija*
ceri cuja njirimi-ni=ja
 1PL.EXC.PRO yesterday 1NSG.SAY/DO.R.PFV-3SG.M.OBL=PST

‘We told him yesterday.’

(JN: IG3-006-A: 89)

All non-SUBJECT pronominal markers encode a three-way distinction between SINGULAR, DUAL and PLURAL (though 3SG OBJECTS are unmarked). Formal number marking contrasts are illustrated in (654) for third person OBJECT.

- (654) a. *naŋ ŋulimudija*
naŋ ŋuli-mudi=ja
 3SG.PRO 1SG.BUMP.R.PFV-see=PST

‘I saw him.’

(JoN: IG3-027-A: 5)

- b. *ŋuliwudimudija*
ŋuli-widi-mudi=ja
 1SG.BUMP.R.PFV-3DU.O-see=pst

‘I looked at those two fellas.’

(JN: IG3-006-B)

- c. *ϕalimbirmudija*
pali-mbir-mudi=ja
 3SG.BUMP.R.PFV-3PL.O-see-PST

‘He looked at all of them.’

(JN: IG3-006-B)

5.6.2 SUBJECT

SUBJECT encodes person and number features of the subject⁹⁸ and forms part of the classifier stem. The classifier stem is an obligatory element of any verb and the SUBJECT marker is, therefore, always realised on the verb. §5.2 discusses reasons for considering the subject marker and classifier root sequence as a portmanteau element, even though most classifier stems can be segmented into sequences of subject marker and classifier root.

Subjects encoded by SUBJECT have thematic roles such as agent (655), experiencer (656) and force (619).

- (655) *ŋudimbijiljilni* *mari*
ŋudi-mbi-jil~jil=ni *mari*
 1SG.CAUSE.IRR-2SG.OBL-REDUP~tell.truth=FUT LANG

‘I’ll tell you a story.’

(HK: 1972-MW-M02004364B)

98. Subject information can also be expressed in other parts of the verb - see §6.1 and §7.1.3 for details.

- (656) kuzi kiθandak naŋji maŋdi
 kuzi ki-ʔandak naŋci maŋti
 3SG.SIT.R 3SG.MOUTH.R.IPFV-listen THING music
 ‘He’s sitting down listening to the music.’ (PT: IG3-031-B)

- (657) wiriʔ ʔawur ŋiŋji adiperduka
 wiriʔ ʔawur ŋiŋci adi-peri-duk=a
 wind tree one 3SG.CAUSE.R.PFV-foot-pull=PST
 ‘The wind knocked one tree down.’ (PT: IG3-031-B)

Even when a clause does not have a referential subject, default SUBJECT-marking inflection is still encoded on the classifier stem. This is exemplified in the impersonal construction in (658) (see §5.6.3 for further details of the impersonal construction).

- (658) jin kariŋmici
 jin kari-ŋ-mi-ci
 1SG.PRO 3SG.HANDS.R.IPFV-1SG.O-eye-tire
 ‘I’ve got a headache.’ (PT: IG3-038-B)

5.6.3 OBJECT

The primary function of the OBJECT marker is to encode patients/themes in transitive verbs. The examples below in (659) - (662) illustrate this function. This function of the OBJECT marker is the primary indicator of a prototypical transitive verb, and is usually accompanied by a TRANSITIVE classifier stem (§5.3.1 and §5.3.3.2).

- (659) naŋ ji aŋuŋgurpa
 naŋ ji aŋ-ŋ-kurp=a
 3SG.M.PRO DEM.3 3SG.SWING.R.PFV-1SG.O-hit=PST
 ‘He hit me.’ (JN: IG3-006-B: 97)

- (660) wacen cicuk ji ŋumu-wudimaŋdi-terka
 wacen cicuk ji ŋumu-widi-maŋti-terk=a
 dog two DEM.3 1SG.TIE.R.PFV-3DU.O-neck-tie.up=PST
 ‘I tied up those two dogs.’ (JoN: IG3-033-A: 21)

- (661) ner manmbir gu wacki ɲutirɬanjiljilni
 ner ma=annimbir ku wacki ɲudi-dir-ɬaŋ-jil~jil=ni
 2PL.PRO MASC=three DEM.2 later 1SG.CAUSE.IRR-2PL.O-ear-REDUP~tell.truth=FUT
 ‘I’m gonna teach you three fellas.’ (JoN: IG3-026-B)

- (662) jin ɲulijmudija kinijeŋa
 jin ɲuli-ɲ-mudi=ja kinijeŋ=a
 1SG.PRO 1SG.BUMP.R.PFV-2SG.O-see=PST 2SG.STAND.R=PST
 ‘I saw you standing up there.’ (PT: IG3-019-B: 43)

The mapping of the OBJECT marker to the patient/theme thematic role distinguishes it functionally from the OBLIQUE marker, which encodes a range of thematic roles, but never patients (though see discussion of pronominal marking of reflexive and reciprocal verbs, which contain atypical patients §5.6.4.1). This attention to thematic role in terms of choice of pronominal marker is also found for Murrinhpatha (Nordlinger 2011, pp. 723–6). Analyses of non-subject argument markers in Marrithiyel and Ngan’gitjemerri do not explicitly state a distinction between patient/non-patient thematic roles, instead outlining a more nuanced division of verb types; however their analyses also seem to imply a patient/non-patient distinction (Green 1989, pp. 82–5; Reid 1990, p. 125).⁹⁹

Aside from the typical patient-marking function of OBJECT, it also marks some psych verbs and impersonal verbs. Some psych verbs in the corpus are formed as idiomatic constructions where OBJECT maps to a stimulus (663) - (664). Impersonal verbs are formed with the SUBJECT marker encoding a dummy 3SG subject while the OBJECT marker maps to an experiencer; the only referential argument of the verb (665) - (666). While identical in pronominal marking characteristics to prototypical transitive verbs, psych verbs and impersonal constructions are distinct morphosyntactically in subtle ways: see §5.3.1 for discussion.

- (663) naŋ ji mazi kumunbiret
 naŋ ji mazi kumun-bir-at
 3SG.M.PRO DEM.3 belly 3SG.PIERCE.R.IPFV-3PL.O-pick.up
 ‘He likes them [Lit: His belly picks up at them].’ (JN: IG3-007-B: 64)

99. For example Green (1989, pp. 82–5) describes the OBLIQUE marker in Marrithiyel as a marker of recipients, beneficiaries and targets/addressees in ditransitive constructions, non-affected ‘objects’ of experiencer verbs, goals of verbs in which there is an ‘anticipated response/activity consequent upon the situation’, reflexive/reciprocal patients, and locative or allative participants, while OBJECT marks ‘participants controlled, acted upon etc. by a transitive subject.’

- (664) *θaŋi kindiriŋbac*
ʔaŋi kindir-ŋ-bac
 ear 2SG.HANDS.R.IPFV-1SG.O-hold
 ‘You know me [Lit: You hold my ear].’
 (RK: 197207-MW-M02004362B: 48)

- (665) *kinginŋici*
kinkin-ŋi-ci
 3SG.PUT.R.IPFV-1SG.O-tire
 ‘I’m tired [Lit: It tires me].’
 (JoN: IG3-035-B: 7)

- (666) *niŋ mazi aɖiŋbuta*
niŋ mazi adi-ŋ-but=a
 2SG.PRO belly 3SG.CAUSE.R.PFV-2SG.O-fill=PST
 ‘You’re full up [Lit: It fills your belly].’
 (PT: IG3-032-B: 42)

3SG objects are unmarked morphologically. In example (667a), the 3SG patient remains completely unexpressed in the clause while in (667b) this argument is expressed via an NP.¹⁰⁰

- (667) a. *ŋaripita* *cuja*
ŋari-pit=a *cuja*
 1SG.HANDS.R.PFV-wash=PST yesterday
 ‘I washed him yesterday.’ (HK: 197207-MW-M02004362B: 55)
- b. *ŋurpitni* *naŋ*
ŋur-pit=ni *naŋ*
 1SG.HANDS.IRR-wash=FUT 3SG.M.PRO
 ‘I’ll wash him.’ (RK: 197207-MW-M02004362B: 51)

While 3SG objects cannot be encoded in the OBJECT slot, they can be linked to the OBJECT slot through incorporated body part constructions (an association not available for OBLIQUE-marked arguments, except in reflexive/reciprocal constructions §8.1.2). In (668) an inanimate possessum is expressed via the incorporated body part /*peri*/ and forms an argument with the possessor encoded by OBJECT (see §8.1.1 for further details on incorporated body parts constructions).

100. Due to a lack of core case-marking in the language, there is actually no morphosyntactic evidence to prove that the external NP is an argument of the verb, as opposed to an adjunct.

- (668) **arinperipita**
 ari-**ŋ**-peri-pit=a
 3SG.HANDS.R.PFV-1SG.O-foot-wash=PST
 ‘He washed my foot.’ (HK: 197207-MW-M02004362B)

Related to this, when the OBJECT slot is left unfilled because the object is 3SG as in (669) below, the presence of an incorporated body part noun indicates that an object is still part of the predicate’s argument structure. This relationship between incorporated body parts and unmarked objects is also true for non-human objects, as shown in (670).

- (669) **wuɟa ɲariɟadipita**
 wuɟa ɲari-**ɟadi**-pit=a
 already 1SG.HANDS.R.PFV-**back**-wash-PST
 ‘I washed his back already.’ (HK: 197207-MW-M02004362B)

- (670) **jeri amperikat**
 jeri am-**jeri**-kat
 tail 2SG.PIERCE.IRR-**tail**-cut
 ‘Cut the (goanna’s) tail off.’ (PT: IG3-035-A)

5.6.4 OBLIQUE

The OBLIQUE marker distinguishes feature categories similar to those of OBJECT, with two notable exceptions: while 3SG objects are unmarked, OBLIQUE encodes 3SG oblique arguments, and also marks a gender distinction in this category. The gender distinction, between MASC and FEM, is represented below in (671).

- (671) a. **ma ji mari ɲirɟibac naŋ**
 ma= ji mari ɲir-**ni**-bac naŋ
 MASC= DEM.3 LANG 1SG.HANDS.R.IPFV-3SG.M.OBL-hold 3SG.M.PRO
 mu
 mu
 BUT
 ‘I believe him though.’ (JoN: IG3-026-B)
- b. **muli ji mari ɲirinɟbac**
 muli= ji mari ɲir-**ŋ**-bac
 FEM= DEM.3 LANG 1SG.HANDS.R.IPFV-3SG.F.OBL-hold
 ‘I believe her.’ (JoN: IG3-026-B)

The **OBLIQUE** marker fills the second verb slot which is the same position used by the **OBJECT** marker and the **DUAL SUBJECT** number marker (§6.1), with only one of these markers able to fill the slot at one time. Trivalent verbs, or verbs with a third benefactive/malefactive referent typically also contain patients/themes which are 3SG, and are, therefore, morphologically unmarked by **OBJECT**, so the second slot is available for the **OBLIQUE**-marker to encode the third referent in these constructions. The examples below show the optional encoding of an oblique argument on these verbs: in (674b) and (675b), the **OBLIQUE** marker encodes the benefactive referent while the 3SG theme is unmarked pronominally, but is expressed in an external NP. In the more uncommon cases where the patient/theme is non-3SG (and human), as in (673a), an alternate pronominal marking combination is used (which is further described in §5.6.5).

(674) a. *naŋji ari amat*
naŋci ari am-at
 THING DEM.1 2SG.PIERCE.IRR-pick.up
 ‘Pick up this one.’ (PT: IG3-035-A)

b. *ciβaki amuŋinat*
ciβaki am-ŋin-at
 tobacco 2SG.PIERCE.IRR-1SG.OBL-pick.up
 ‘Pick up the tobacco for me.’ (JN: IG3-011-B: 6)

(675) a. *naŋ ji kaβapni*
naŋ ji ka-βap=ni
 3SG.M.PRO DEM.3 3SG.MOUTH.IRR-transfer=FUT
 ‘He’s going to put it down.’ (JN: IG3-007-A: 62)

b. *naŋ ji awu tɔaŋaŋβapa*
naŋ ji awu za-ŋin-βap=a
 3SG.M.PRO DEM.3 meat 3SG.MOUTH.R.PFV-1SG.OBL-transfer=PST
 ‘He gave that meat to me.’ (JN: IG3-011-A: 94)

The **OBLIQUE** marker encodes a range of thematic roles such as beneficiaries, goals, recipients and sources, but does not mark patients (with the exception of reflexive and reciprocal arguments - see discussion below in §5.6.4.1). Examples below show **OBLIQUE** marking a beneficiary (676), a goal (677) and a recipient (678).

(676) *palininceratak cibaki*
pal-ŋin-ceritak ciβaki
 2SG.BUMP.IRR-1SG.OBL-ignite tobacco
 ‘You light a cigarette for me.’ (JoN: IG3-037-A)

(677) **ɲiniɲenɲinpir**
 ɲiniɲa-**ɲin**-pir
 2SG.STAND.CMPLX.IRR-1SG.OBL-throw
 ‘Throw it to me.’ (PT: IG3-023-A)

(678) **naɲɲi daɲβapa**
 naɲci za-**ɲ**-βap=a
 THING 3SG.MOUTH.R.PFV-3SG.F.OBL-transfer=PST
 ‘He gave it to her.’ (JJ: RN5-001-A)

5.6.4.1 Reflexive and reciprocal marking

The OBLIQUE marker can also be used to encode reflexive and reciprocal arguments (Preston 2012, pp. 68–74, 83–4). Reflexivity can be expressed via other means (see §4.4.1); however OBLIQUE-marking is a very common strategy for encoding this type of meaning. As for the encoding of reciprocity, other strategies are preferred (§8.4) and OBLIQUE is used only rarely. Preston (2012) provides an extensive morphological and semantic account of reflexivity and reciprocity in Marri Ngarr.

When functioning as a reflexive/reciprocal marker, OBLIQUE is required to agree in person and number features with the subject argument, as illustrated in the reflexive construction in (679) and the reciprocal construction in (680).

(679) **ɲiriɲintɪɪpɲina** **ɲalpu**
 ɲiri-**ɲin**-zɪp~zɪp=ɲin=a **ɲalpu**
 1SG.HANDS.R.IPFV-1SG.OBL-REDUP~-pinch=1SG.GO.R.IPFV=PST many
 ‘I was pinching myself a lot.’ (PT: IG3-035-B: 34)

(680) **niwir ji kumunwircecepku**
 niwir ji **kumun-wir-cep~cep=kuli**
 3PL.PRO DEM.3 3NSG.PIERCE.R.IPFV-3PL.OBL-REDUP~paint=3PL.SIT.R.IPFV
 miti
 miti
 dot
 ‘That mob painted each other up.’ (PT: IG3-023-B: 44)

Generally in these constructions, the OBLIQUE marker encodes an argument that would be an OBJECT-marked referent in a non-reflexive/reciprocal verb. The OBLIQUE marker

is used in the reflexive/reciprocal construction to express the atypical nature of this referent in that it is co-referential with the subject (§5.3.1). There is never a change in classifier stem when OBLIQUE is used to express reflexivity/reciprocity: all OBLIQUE-marked reflexive/reciprocal constructions maintain a TRANSITIVE classifier stem, providing evidence that these constructions are not valency-reducing. Below in (681a) we see the OBJECT-marked verb, while in (681b) the same classifier stem and lexical stem combination is OBLIQUE-marked to express the reflexive argument (along with the external reflexive pronoun, discussed below and in §4.4.1). The same OBJECT/OBLIQUE alternation is seen in (682) with a 3SG unmarked object in (682a) and the OBLIQUE-marked verb in (682b) which marks the reciprocal argument (in conjunction with the RECIPROCAL marker /*(k)an̩ki/* discussed in section §8.4).

(681) a. ardidipita
 ari-didi-pit=a
 3SG.HANDS.R.PFV-2DU.O-wash=PST
 ‘He washed you two.’ (RK: 197207-MW-M02004363A)

b. nan ma ji arzipita
 nan ma= ji ar-ni-pit=a
 3SG.M.PRO MASC= DEM.3 3SG.HANDS.R.PFV-3SG.OBL-wash=PST
 pundi nan
 pundi nan
 REFL
 ‘He washed himself.’ (JoN: IG3-038-B)

(682) a. kan̩gi ɲumbulimudija
 kan̩ki ɲumbuli-mudi=ja
 1INCL.DU.PRO 1INCL.DU.BUMP.R.PFV-see-PST
 ‘You and me saw him.’ (JN: IG3-009-B)

b. ɲumbulingimudikan̩gija
 ɲumbuli-ɲki-mudi-kan̩ki=ja
 1INCL.DU.BUMP.R.PFV-1INCL.DU.OBL-see-RECIP=PST
 ‘Us two fellas saw each other.’ (PT: IG3-019-B)

Usually in the corpus reflexive/reciprocal verbs have animate referents; however inanimate referents can also be encoded by OBLIQUE when reflexives are formed with the CAUSE classifier stem (§5.4.3), as in (683). The OBLIQUE marker is not otherwise observed encoding inanimate referents outside of these CAUSE reflexive constructions. Equivalents of OBLIQUE markers can also encode inanimate/lower animate referents only in reflexive/reciprocal constructions in Marrithiyel and Ngan’gitjemerri (Green 1989, pp. 118–9; Reid 2011, pp. 132–133). In descriptions of these languages there is no mention of

restrictions on the choice of classifier stem when the referent is inanimate/lower animate.

- (683) ka|a kitaʃaʃkwaŋ
karila kidin-ni-waʃaʃ=kwaŋ
rock 3SG.CAUSE.R.IPFV-3SG.M.OBL-shake=3SG.STAND.R.IPFV
‘The stone is wobbly.’ (HK: 197207-MW-M02004363A)

In reflexive constructions it is common for the OBLIQUE marker to be the only indicator of reflexivity (684a), though it can also co-occur with a reflexive pronoun, formed with the body part /*pundi*/ ‘hand’ and a personal pronoun which matches the features of the reflexive argument (684b).

- (684) a. naŋ ma ji
naŋ ma= ji
3SG.M.PRO MASC= DEM.3
karʒicetkuʒi
kar-ni-cet=kuzi
3SG.HANDS.R.IPFV-3SG.M.OBL-scratch=3SG.SIT.R.IPFV
‘He was scratching himself.’ (PT: IG3-038-B: 23)

- b. naŋ ma ji
naŋ ma= ji
3SG.M.PRO MASC= DEM.3
karʒicetkuʒi pundi
kar-ni-cet=kuzi pundi
3SG.HANDS.R.IPFV-3SG.M.OBL-scratch-3SG.SIT.R.IPFV REFL
naŋ
naŋ
‘He was scratching himself.’ (PT: IG3-037-A: 8)

OBLIQUE-marking is much less common in the corpus for encoding reciprocity than the use of the RECIPROCAL marker /*(k)anʒki*/. Usually when the OBLIQUE marker is used to encode reciprocity, it is in conjunction with /*(k)anʒki*/ as in (685a), though occasionally the OBLIQUE marker can be used on its own (685b).

- (685) a. niwijn ma ji
niwijn ma= ji
3DU.PRO MASC= DEM.3
kuniwiņcepangikawiņ
kup-**wiņ**-cep-**aŋki**=kawu-ŋ
3NSG.SWING.R.IPFV-3DU.OBL-paint-**RECIP**=3.SIT.R.IPFV-DU.S.INTR
- ‘Those two were painting each other up.’ (JoN: IG3-034-B: 9)
- b. niwir ji kumunwircecepkuḷi
niwir ji kumun-**wir**-cep~cep=kuḷi
3PL.PRO DEM.3 3NSG.PIERCE.R.IPFV-3PL.OBL-REDUP~paint=3PL.SIT.R.IPFV
- miti
miti
dot
- ‘That mob were painting each other up.’ (PT: IG3-023-B)

This use of specialised markers for reflexivity (the reflexive pronoun) and reciprocity (the **RECIPROCAL** marker) can help to prevent ambiguity in constructions with **NSG** arguments. For example, (686) below which is only marked with **OBLIQUE** could have a reflexive interpretation (as given in the translation), a reciprocal interpretation, i.e. ‘they washed each other’, or alternately be interpreted as a non-patient argument in a trivalent construction, i.e. ‘they_i washed it for them_j’.¹⁰¹

- (686) pariwiņpita
pari-**wiņ**-pit=a
3NSG.HANDS.R.PFV-3DU.OBL-wash=PST
- ‘Those two washed themselves.’ (PT: IG3-018-A)

The **OBLIQUE** marker can also encode arguments in reciprocal verbs in which an oblique argument feeds the reciprocal construction. In (687a) and (688a) below the **OBLIQUE** marker encodes the oblique argument on an **OBLIQUE**-taking verb, while in (687b) and (688b), **OBLIQUE** instead encodes the reciprocal participant (occurring in conjunction with the **RECIPROCAL** marker /*(k)aŋki*/ which helps to disambiguate the reciprocal reading from other possible interpretations).

101. While the third alternative is structurally possible, this classifier stem - lexical stem combination does not participate in any trivalent constructions in the corpus.

(687) a. **jin** **naŋ** **ma** **ji**
 jin naŋ ma= ji
 1SG.PRO 3SG.M.PRO MASC DEM.3
 ŋirzjengikaŋija
 ŋir-**ni**-jenki=kaŋi=ja
 1SG.HANDS.R.IPFV-**3SG.OBL**-talk=1SG.SIT.R.IPFV=PST
 ‘I was talking to him before.’ (PT: IG3-038-B)

b. **niŋ** **jin** **mari**
 niŋ jin mari
 2SG.PRO 1SG.PRO LANG
 ŋumburiŋgijengikaŋiŋambu
 ŋumbur-**ŋki**-jenki-kaŋki=ŋambu
 1INCL.DU.HANDS.IRR-**1INCL.DU.OBL**-talk-RECIP=1INCL.DU.SIT.IRR
 ‘You and me let’s talk to each other.’ (PT: IG3-034-B)

(688) a. **naŋ** **ma** **ji**
 naŋ ma= ji
 3SG.M.PRO MASC= DEM.3
 kaŋiŋgagawuri
 ka-**ŋiŋ**-ya~ya=wuri
 3SG.STAND.CMPLX.R.IPFV-**2DU.OBL**-REDUP~call.out=TOWARDS
 ‘He’s calling out to you two.’ (PT: IG3-036-B)

b. **niwiŋ** **ma** **ji** **cicuk**
 niwiŋ ma= ji cicuk
 3DU.PRO MASC= DEM.3 two
 kujawiŋgagagaŋgi
 kuja-**wiŋ**-ya~ya-kaŋki
 3NSG.STAND.CMPLX.R.IPFV-**3DU.OBL**-REDUP~call.out-RECIP
 ‘Those two blokes are calling out to each other.’ (PT: IG3-034-B)

It is unclear whether OBLIQUE-taking verbs can also feed reflexive constructions in which the OBLIQUE marker encodes the reflexive participant. There is only one example in the corpus of a reflexive construction which involves an OBLIQUE-taking verb (illustrated in (689a)), given in (689b). In this construction reflexivity is only signalled via the reflexive pronoun in the NP.

(689) a. **naŋimbibibiŋni**
 naci-**mbi**-biŋ~biŋ=ni
 1SG.COOK.IRR-**2SG.OBL**-REDUP~cook=FUT
 ‘I’ll cook it for you.’ (JoN: IG3-024-B)

b. η ajibi η ni η aci-bi η ~bi η =ni 1SG.COOK.IRR-REDUP~COOK=FUT	β undi jin pundi jin REFL	‘I’ll cook it for myself.’	(JJ: RN5-004-A)
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The use of the OBLIQUE marker to encode reflexivity and reciprocity is rare cross-linguistically. Haspelmath (2023) notes that reflexive argument markers are commonly used in the same verb slot as the object as a strategy for encoding reflexivity, but does not report the use of an argument marker that already has function in the system (e.g. marking oblique arguments). In a survey of around 150 languages, Schladt (2000, pp. 105–6) reports that elements such as body part terms, nominal sources such as terms for ‘self’, emphatic pronouns and object personal pronouns are all reported as common sources of reflexives, but pronominal agreement markers, such as OBLIQUE, which already serve a function in the grammar are not mentioned, nor is OBLIQUE-marking reported as a strategy for encoding reflexivity/reciprocity in Australian languages (Dixon 2002, p. 320). Though apparently rare cross-linguistically, this method of encoding reflexivity and reciprocity is also found in Western Daly (Green 1989, pp. 118–9; Ford 1998, pp. 168–74) and Ngan’gitjemerri, though in Ngan’gitjemerri it only occurs in conjunction with a ‘de-transitivised’ classifier (Reid 1990, pp. 132–4). In these Daly languages there are some subtle distinctions between the marker used to encode oblique arguments and that used to mark reflexives/reciprocals: Ford (1998, p. 168) notes that the third person augmented reflexive/reciprocal form is distinct from the OBLIQUE equivalent in Emmi, and as mentioned above, both Green (1989, pp. 118–9) and Reid (1990, p. 133) note that the animacy restrictions on the use of the OBLIQUE marker do not apply in reflexive/reciprocal constructions, i.e. reflexive/reciprocal lower animate arguments can be encoded with the OBLIQUE marker. For Ford (1998, pp. 168–74), the formal distinction in Emmi is enough to propose two functionally distinct markers which (usually) have homophonous forms, while despite the semantic differences between oblique and reflexive/reciprocal encoding in Marrithiyel and Ngan’gitjemerri, these elements are analysed as one marker which encodes both oblique, and reflexive/reciprocal referents (Green 1989, pp. 118–9; Reid 1990, pp. 132–4). In Marri Ngarr I find that OBLIQUE-marking of reflexives/reciprocals differs in one way from other OBLIQUE-marking uses: it can encode inanimate referents in reflexives classified by CAUSE (see above). However, as this distinction only occurs in a very specific environment, I do not believe it is enough evidence to propose two functionally distinct but homophonous markers in Marri Ngarr. Therefore, I consider reflexive/reciprocal-marking to be one of the various functions of the OBLIQUE marker in Marri Ngarr. Preston (2012, p. 71) favours a similar analysis, arguing that marking of reflexive/reciprocal referents by the OBLIQUE marker is in accordance with the OBLIQUE marker’s function of marking non-/atypical patients.

5.6.5 ADJUNCT

A fourth pronominal agreement marker is found across Western and Southern Daly languages. These markers are less productive than other pronominal agreement markers and only a partial paradigm exists for Emmi (Ford 1998, p. 176) and Murrinhpatha (Blythe 2010, p. 165). These markers have been given various titles such as ‘ethical datives’ (Murrinhpatha: Blythe 2010, p. 164), ‘implicated pronominals’ (Ngan’gitjemerri: Reid 1990,

pp. 134–5), ‘adversatives’ (Emmi: Ford 1998, p. 176) and ‘/anga/ pronominals’ (Marrihiyel: Green 1989, p. 126). A common usage of this marker across all these languages is to encode a malefactive argument.

A fourth pronominal agreement marker is also found, rarely, on the verb in Marri Ngarr.¹⁰² This marker is analysed as a marker of adjuncts. In this thesis I distinguish adjuncts from arguments based on arguments being inherent to the meaning of a verb (§3.2). In contrast adjuncts are not inherent to a verb’s meaning, but simply provide additional information about an event. Labelled ADJUNCT, the adjunct marker’s forms are clearly derived from the forms of the OBLIQUE marker, with an added /-ali/ suffix of unknown origin (see table 5.10 or 5.12 in §5.6.1 for comparison of ADJUNCT and OBLIQUE forms). According to Ford (2010b, p. 46) (who calls these markers ‘involuntary bound pronouns’ in Marri Ngarr (Ford 2010b, p. 43)), this marker immediately follows the lexical stem and precedes the AUGMENTED number marker =/nim/. There is insufficient data in the corpus to confirm this; however based on the data available its position can be narrowed down to somewhere between the lexical stem and the serial verb, as exemplified in (690).

- (690) jin ɲilɲinmijeripaliɲina
 jin ɲil-ɲin-mijeri-pali=ɲin=a
 1SG.PRO 1SG.BUMP.R.IPFV-1SG.OBL-think-2SG.ADJ=1SG.GO.R.IPFV=PST
 ‘I was thinking about you.’ (PT: IG3-030-A: 31)

ADJUNCT can be present in bipartite verbs with the OBJECT/OBLIQUE pronominal slot filled (691), or in simple verb constructions where it marks the only non-SUBJECT referent (692).

- (691) jin ɲumudiparatpalini
 jin ɲum-widi-βarat-pali=ni
 1SG.PRO 1SG.PIERCE.IRR-3DU.O-grab-2SG.ADJ=FUT
 ‘I’ll grab those two for you.’ (PT: IG3-021-B: 76)

- (692) awu jiliki wunmuk kanipaliɲandi
 awu jilirki wunmuk kani-pali-ɲa=andi
 ANIM meat rotten 3SG.GO.R-2SG.ADJ-MAL=APPR
 ‘The meat might go rotten on you.’ (PT: IG3-036-B)

Like other Western and Southern Daly languages, ADJUNCT can be associated with a malefactive referent, though its function is broader than this, and Marri Ngarr already has a dedicated MALEFACTIVE marker (§8.3). In the corpus ADJUNCT is observed encoding human referents functioning as a benefactive (693), malefactive (694), recipient (695), goal (696) and stimulus (697).

102. The ADJUNCT marker occurs in very few examples and some ADJUNCT forms are absent altogether from the corpus.

(693) amudiparatɲinali kaɖi ni
 am-widi-βarat-ɲinali kadi =ni
 2SG.PIERCE.IRR-3DU.O-grab-1DU.ADJ 1DU.PRO =DAT
 ‘You grab them for us two.’ (PT: IG3-022-B)

(694) naŋ ma ji wiji kaniɲinali
 naŋ ma= ji wiji kani-ɲinali
 3SG.M.PRO MASC= DEM.3 angry 3SG.GO.R-1SG.ADJ
 ‘That man’s mad with me.’ (PT: IG3-019-B)

(695) mari ɲimiɲalija
 mari ɲimi-ɲali=ja
 LANG 1SG.SAY/DO.R.PFV-3SG.F.ADJ=PST
 ‘I told that woman.’ (JN: IG3-011-A)

(696) kwaniɲinaliwuri na jin
 kwani-ɲinali=wuri na jin
 3SG.GO.R-1SG.ADJ=TOWARDS LOC 1SG.PRO
 ‘He’s coming up to me.’ (PT: IG3-033-B)

(697) jin kumuɲimacerpaliɲina
 jin kumuɲ-ɲ-ma-cer-pali=ɲin=a
 1SG.PRO 3SG.PIERCE.R.IPFV-1SG.O-belly-pierce-2SG.ADJ=1SG.GO.R.IPFV=PST
 ‘I was worried about you.’ (PT: IG3-030-A: 32)

Occasionally in the corpus a verb can take either OBLIQUE or ADJUNCT (698) - (699). Both types of constructions were produced in elicitation contexts and there are no discernible semantic differences between them.

(698) a. mari ɲimiɲalija
 mari ɲimi-ɲali=ja
 LANG 1SG.SAY/DO.R.PFV-3SG.F.ADJ=PST
 ‘I told that woman.’ (JN: IG3-011-A)

- b. η umu η a
 η imi- η =a
 1SG.SAY/DO.R.PFV-3SG.F.OBL=PST

‘I told that woman.’

(JN: IG3-011-A)

- (699) a. η inimbe na η
 η inimbe na η
 WHO 3SG.M.PRO
 kindirgataligandi
 kindir-yati-nali=kandi
 2SG.HANDS.R.IPFV-create-3SG.M.ADJ=2SG.SIT.R.IPFV

‘Who did you make it for?’

(RK: 1972-MW-M02004365A)

- b. na η ji kanbi ku ga η inimbe na η
 na η ci kanbi ku =ka η inimbe na η
 THING didgeridoo DEM.2 =TOP WHO 3SG.M.PRO
 kindirniyatiyandi
 kindir-ni-yati=kandi
 2SG.HANDS.R.IPFV-3SG.M.OBL-make=2SG.SIT.R.IPFV

‘Who did you make that didgeridoo for?’

(HK: 1972-MW-M02004365A)

DATIVE case-marking data shows that NPs which are coreferential with ADJUNCT-marked referents almost always appear marked with DATIVE case in the corpus, as in (700), or occasionally with the LOCATIVE preposition as in (696) above.

- (700) amu η iparat η inali niwijn ji jinni
 am-widi- β arat- η inali niwijn ji jin=ni
 2SG.PIERCE.IRR-3DU.O-grab-1SG.ADJ 3DU.PRO DEM.3 1SG.PRO=DAT

‘You grab those two (people) for me.’

(PT: IG3-022-B)

Elsewhere in the corpus DATIVE case-marking almost always occurs on NPs which are not pronominally marked, as in (701), suggesting that it is a marker of adjuncts.

- (701) niwir ma ji marini kunmela
 niwir ma= ji mari=ni kunmel=a
 3PL.PRO MASC= DEM.3 LANG=DAT 3PL.GO.R=PST

‘They went for a meeting.’

(PT: IG3-024-B)

DATIVE case is never found on NPs which are co-referential with OBJECT-marking. It is found, only rarely, on NPs which are co-referential with OBLIQUE-marking (702). OBLIQUE is analysed as a marker of both oblique arguments and adjuncts (§5.6.4); thus allowing for an adjunct interpretation of the non-subject referent in (702).

(702) kuɲinazu jin ni
 kuzi-ɲin-azu jin =ni
 3SG.SIT.R-1SG.OBL-laugh 1SG.PRO =DAT

‘He’s laughing about me.’

(RK: 1972-MW-M02004364B)

5.7 Summary

This chapter has described the fundamental features of the verb. A central element of the verb is the classifier stem. It marks various types of information such as subject features, TAM, predicate semantics and transitivity value, and can function on its own as a simple verb, as well as co-occurring with a lexical stem in a bipartite verb. The various functions of the classifier stem were described in §5.2.

An analysis of argument structure in bipartite verbs was provided in §5.3. Classifier stems are identified as INTRANSITIVE or TRANSITIVE based on DUAL SUBJECT-marking characteristics, while lexical stems specify for either one or two arguments with particular thematic roles. INTRANSITIVE classifier stems tend to co-occur with 1-place lexical stems and form intransitive verbs, while TRANSITIVE classifier stems tend to pair with 2-place lexical stems to form transitive verbs, with the object pronominally marked by OBJECT. However, other combinations of these predicative elements are permitted, for example an INTRANSITIVE classifier stem can pair with a 2-place lexical stem which results in an OBLIQUE-marked verb, signalling that the construction is bivalent but not prototypically transitive. Another type of construction involves an INTRANSITIVE classifier stem and a 2-place lexical stem which specifies for agent and patient, resulting in an anticausative construction. This section also discusses other morphology which contribute to our understanding of argument structure in Marri Ngarr bipartite verbs: body part incorporation which usually indicates the presence of an object and, therefore, a transitive verb, and APPLICATIVE markers which introduce an object to form a derived transitive verb.

Marri Ngarr has a rich event classification system where verbs are obligatorily marked by one of 21 classifier stems which semantically categorise the event denoted by the verb. The semantics of the classifier stems were explored in §5.4. These classifier stems categorise for events based on stance/motion and various other characteristics, including six classifier stems which categorise based on the shape of the instrument used to carry out the event, the type of contact it makes with the object and the trajectory of the instrument when it is employed.

The lexical stem is the other predicative element in bipartite verbs. It contributes predicate semantics and argument structure information to the verb, which were described in §5.5. Many lexical stem forms can reduplicate, and these reduplicated forms express

pluractional meanings described in §5.5.1. A handful of lexical stems exhibit suppletive forms which were described in §5.5.2.

§5.6 examined the formal characteristics of the pronominal marking system. Many formal similarities can be observed across the various pronominal markers and some of these can be traced back to Proto non-Pama-Nyungan forms. Pronominal markers obligatorily encode core grammatical relations as well as optionally encoding oblique arguments and occasionally human adjuncts.

Pronominal agreement markers play a role in marking argument number; however they are not the only strategy for marking argument number information on the verb. In the next chapter, I examine several other markers of argument number and consider how the combination of these markers constructs overall argument number.

Chapter 6

Argument number marking

In §5.6 of Chapter 5, I described the way arguments are marked pronominally in the Marri Ngarr verb. Additional argument number markers are interspersed throughout the verb, and this argument number marking is the focus of this chapter. The verb template is repeated below in 6.1, with argument number markers indicated in bold. As can be seen from the template, a range of argument number categories can be encoded in various slots throughout the verb.

1	2	3	4	5	6	7	8	9	10	11	12			
SUBJECT-	DUAL SUBJECT-	-classifier root-	-PLURAL SUBJECT	DUAL SUBJECT/ (U)AUG SUBJ>MIN.O- OBJECT/OBLIQUE	body part noun/ APPLICATIVE	lexical stem	ADJUNCT	MALEFACTIVE	adverbial	RECIPROCAL	SERIAL	DUAL SUBJECT	AUGMENTED ARG	TENSE/MOOD

Table 6.1: Verb template with argument number-marking slots highlighted

The Marri Ngarr argument number system exhibits distributed exponence (Carroll 2022): the overall semantic number value of arguments is often the result of morphological combinations of two or more verbal affixes which mark number information, as opposed to each affix encoding a number value which matches the actual semantic number of an argument. The following example shows a subject marked for NSG as part of the classifier stem, and this combines with the DUAL SUBJECT marker */-ŋki/* in slot 2 which narrows NSG down to DUAL number, then added to this is the AUGMENTED marker */=nim/* to arrive at the final subject number value of paucal.

- (703) kaɟinim ɲiringibanima cuja
 kadi=nim ɲiri-ŋki-ba=nim=a cuja
 1DU.PRO=AUG 1NSG.MOUTH.R.PFV-DU.S-come=AUG=PST yesterday

‘We three (EXCL) came yesterday.’

(HK: 1972-MW-M02004365A)

The following sections examine the functions of the various number markers on the verb and the ways in which they interact to provide overall semantic argument number information. Concerning subject number, while a basic SG/NSG distinction is encoded on the (EXCL) SUBJECT-marking prefixes of the classifier stem (outlined in §5.6.1), other number markers provide more specific SUBJECT number information: the DUAL SUBJECT number suffix */-ŋki/* ~ */-ɲ/* is examined in §6.1.1 while the PLURAL SUBJECT number suffix */-mel(i)/* ~ */-li/* is discussed in §6.1.3. Another marker */ni-/* co-occurs with minimal OBJECT/OBLIQUE forms and indicates the number value of the subject: when it co-occurs with EXCL SG OBJECT/OBLIQUE forms it marks the subject as DUAL and when it co-occurs with 1INCL.DU OBJECT/OBLIQUE forms it marks the subject as DUAL or PLURAL (§6.1.2). In addition to these subject number-marking techniques in §6.1 which add specificity of number value to NSG SUBJECT, another number marker */=nim/* found further down in the verb template augments the number already specified for either SUBJECT or OBJECT/OBLIQUE. Details of the function of this marker are given in §6.2. In contrast to these morphological combinations which result in the expression of argument number which is more specific than simply NSG, another number marking process creates ambiguity in the argument number system: pronominal number neutralisation, described in §6.4, neutralises the regular DUAL/PLURAL distinction found in the pronominal marking system, particularly in the OBJECT/OBLIQUE marking system. Together, the characteristics of the Marri Ngarr number marking system provide strong evidence for word-based models of morphology (Stump 2001; Blevins, Ackerman, and Malouf 2018), as discussed in §6.5.

6.1 Subject number marking

6.1.1 DUAL SUBJECT marker

A DUAL SUBJECT number marker can co-occur on the verb with EXCL NSG forms of the classifier stem. Most classifier stems take the */-ŋki/*¹⁰³ form of this marker, while the SRT and GO classifier stems take the form */-ɲ/* and PASS takes the associated form */-ziɲ/*. The STAND and LIE classifiers take the */-ŋki/* form, but with positional differences discussed below. Classifier stems which take */-ŋki/* in its regular position are considered formally TRANSITIVE, while */-ɲ/* or */-ziɲ/*-taking classifier stems and those that take */ŋki/* in an alternate position are considered formally INTRANSITIVE. This transitivity distinction based on DUAL SUBJECT marking form and position is discussed in §5.3.3.1.

The function of the DUAL SUBJECT marker is demonstrated below, with the */-ŋki/* form, where the attachment of */-ŋki/* to the NSG classifier stems in (704a) and (705a) results in a dual interpretation of the subject, while in the absence of the DUAL SUBJECT marker in (704b) and (705b), the subject is interpreted as PLURAL.

- (704) a. *naŋ ma ji ŋilingimudija*
naŋ ma= ji ŋili-ŋki-mudi=ja
 3SG.M.PRO MASC= DEM.3 1NSG.BUMP.R.PFV-DU.S-see=PST

‘Us two fellas saw him.’

(JoN: IG3-027-A)

103. This marker is sometimes realised as */-ki/* following a nasal.

- b. *naŋ ma ji ŋilimudija*
naŋ ma= ji ŋili-mudi=ja
 3SG.M.PRO MASC= DEM.3 1NSG.BUMP.R.PFV-see=PST

‘We (plural) saw him.’

(JoN: IG3-027-A: 14)

- (705) a. *Φiŋiŋibiɬa*
βiŋi-ŋki-biɬ=a
 3NSG.COOK.R.PFV-DU.S-cook=PST

‘Those two cooked it.’

(UNK: 196905-DT-DO1009402)

- b. *Φiŋibiɬa*
βiŋi-biɬ=a
 3NSG.COOK.R.PFV-cook=PST

‘They (plural) cooked it.’

(UNK: 196905-DT-DO1009402)

This regular strategy for expressing DUAL number of EXCL SUBJECT forms is illustrated in the HANDS classifier stem paradigm below in table 6.2 where the DUAL SUBJECT marker on the dual forms is marked in bold.¹⁰⁴ 1INCL forms are inherently DUAL and cannot receive /-ŋki/-marking.

	R.IPFV	R.PFV	IRR
1INCL.DU	<i>/kumbur-/</i>	<i>/ŋumburi-/</i>	<i>/ŋumbur-/</i>
SG	1 <i>/ŋir-/</i>	<i>/ŋari-/</i>	<i>/ŋur-/</i>
	2 <i>/kindir-/</i>	<i>/ŋindiri-/</i>	<i>/ar-/</i>
	3 <i>/kar-/</i>	<i>/ari-/</i>	<i>/kur-/</i>
DU	1 <i>/kir-ŋki/</i>	<i>/ŋiri-ŋki/</i>	<i>/ŋiri-ŋki/</i>
	2 <i>/kindir-ŋki/</i>	<i>/nari-ŋki/</i>	<i>/nar-ŋki/</i>
	3 <i>/kuri-ŋki/</i>	<i>/pari-ŋki/</i>	<i>/piri-ŋki/</i>
PL	1 <i>/kir-/</i>	<i>/ŋiri-/</i>	<i>/ŋiri-/</i>
	2 <i>/kindir-/</i>	<i>/nari-/</i>	<i>/nar-/</i>
	3 <i>/kuri-/</i>	<i>/pari-/</i>	<i>/piri-/</i>

Table 6.2: HANDS classifier stem forms

While the presence of the DUAL SUBJECT marker often results in an overall semantic interpretation where the subject is dual, this is not always the case. In the verb in (706a) below, the DUAL SUBJECT marker combines with both the NSG classifier stem and the AUGMENTED number marker /-nim/ (§6.2); a combination which results in a semantically paucal interpretation¹⁰⁵ (further specified as ‘three’ by the presence of the numeral

104. These forms are listed phonemically; however an epenthetic high front vowel is always realised between the classifier stem and the DUAL SUBJECT marker in speech when the classifier stem form is not already vowel-final (§2.3.1).

105. See definition of ‘paucal’ in §4.4.1.

/annimbir/), cf. (706b) where */=nim/* is absent and the subject number is semantically dual, and (706c) in which only the NSG classifier stem is used for marking number on the verb, providing a plural interpretation.

- (706) a. *nad̥ɨnim ma annimbir ku namangiparatnim*
nadi=nim ma= annimbir ku nam-ŋki-βarat=nim
 2DU.PRO=AUG MASC= three DEM.2 2NSG.PIERCE.IRR-DU.S-grab=AUG
 ‘You three fellas grab him.’ (PT: IG3-018-A: 35)
- b. *nad̥ɨ majicuk ku namangiparat*
nadi ma=cicuk ku nam-ŋki-βarat
 2DU.PRO MASC=two DEM.2 2NSG.PIERCE.IRR-DU.S-grab
 ‘You two grab him.’ (PT: IG3-018-A: 34)
- c. *ner magwu ŋalpu gu nambarat*
ner ma=ku=wu ŋalpu ku nam-βarat
 2PL.PRO MASC=DEM.2=WU many DEM.2 2NSG.PIERCE.IRR-grab
 ‘You (plural), you grab him.’ (PT: IG3-018-A: 36)

The examples in (706) also exemplify the need to interpret semantic argument number as a product of the combination of argument number markers, rather than semantic meaning being assigned to individual number markers. That is, semantically dual subject arguments are never encoded with just a DUAL number marker, but instead must be rendered through a combination of subject number markers: in the case of (706b) the NSG SUBJECT marker on the classifier stem, and the DUAL SUBJECT marker.¹⁰⁶ Likewise, semantically paucal number is not encoded simply with a PAUCAL number marker but instead must be composed of some combination of different number markers: in the case of (706a) the NSG SUBJECT marker, the DUAL SUBJECT marker and the AUGMENTED number marker, which combine to render a paucal interpretation.

Two INTRANSITIVE classifier stems, SIT and GO take the */-ɲ/* form of the DUAL SUBJECT marker, while the INTRANSITIVE classifier stem PASS, which has an irregular paradigm (§5.4.1) takes the form */-zɨɲ/*. These DUAL SUBJECT marking forms are illustrated in bold in tables §6.3 - §6.5 below.

106. In this respect, glossing */ŋki/ ~ /-ɲ/* as ‘DUAL SUBJECT’ is actually inaccurate because this marker does not render this meaning on its own. However, I gloss it as such because verbs which contain */-ŋki/ ~ /-ɲ/* have a DUAL SUBJECT interpretation unless they also contain the AUGMENTED number marker.

		REALIS	IRREALIS
1INCL.DU		/kambu/	/ɲambu/
SG	1	/kaɲi/	/ɲawu/
	2	/kandi/	/ɲandi/
	3	/ku(zɪ)/	/kawu/
DU	1	/kari-ɲ/	/ɲari-ɲ/
	2	/kandi-ɲ/	/nawi-ɲ/
	3	/kawu-ɲ/	/pari-ɲ/
PL	1	/kari/	/ɲari/
	2	/kindili/	/nawu/
	3	/kuli/	/pari/

Table 6.3: SIT classifier forms highlighting DUAL SUBJECT-marking forms

		R.(IPFV)	R.PFV	IRR
1INCL.DU		/kumbun/	/ɲumbuni/	/ɲumbun/
SG	1	/ɲin/	/ɲani/	/ɲun/
	2	/kinin/	/ɲini/	/wari/
	3	/kwani/	/wani/	/kun/
DU	1	/kini-ɲ/	/ɲini-ɲ/	/ɲini-ɲ/
	2	/kini-ɲ/	/nani-ɲ/	/nani-ɲ/
	3	/kuni-ɲ/	/pani-ɲ/	/pini-ɲ/
PL	1	/kinmel/	/ɲinmeli/	/ɲinmel/
	2	/kininmel/	/nanmeli/	/nanmel/
	3	/kunmel/	/panmeli/	/pinmel/

Table 6.4: GO classifier stem forms highlighting DUAL SUBJECT-marking forms

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbujer-/	/ɲumbujɛciri-/	/ɲumbujer-/
SG	1	/ɲijer-/	/ɲijɛciri-/	/ɲadi-/
	2	/kijer-/	/ɲinijɛciri-/	/ɲijer-/
	3	/kini-/	/pijɛciri-/	/kadi-/
DU	1	/kiri-ɛɲ-/	/ɲiri-ɛɲ-/	/ɲiri-ɛɲ-/
	2	/kindi-ɛɲ-/	/nari-ɛɲ-/	/nari-ɛɲ-/
	3	/kuri-ɛɲ-/	/pari-ɛɲ-/	/piri-ɛɲ-/
PL	1	/kinmel-/	/ɲinmeli-/ ~ /ɲirmeli-/	/ɲinmel-/ ~ /ɲirmel-/
	2	/kinmel-/	/nanmeli-/ ~ /ɲarmeli-/	/narmel-/
	3	/kunmel-/	/panmeli-/ ~ /pijɛcirmel-/	/pirmel-/

Table 6.5: PASS classifier stem forms highlighting DUAL SUBJECT-marking forms

Dual /-*p*/ ~ /-*zɪp*/-taking forms on the GO and PASS classifier stems contrast with plural forms marked with the PLURAL SUBJECT marker /-*mel(i)*/~/li/ (§6.1.3) (as opposed to /-*ŋki*/-taking classifier stems where plural interpretations are simply rendered by the NSG SUBJECT marker and the absence of the DUAL SUBJECT marker, e.g. (706c) above). 2PL.SIT.R and 3PL.SIT.R forms take a truncated PLURAL SUBJECT marking form /-li/ while other SIT forms do not possess PLURAL SUBJECT forms.¹⁰⁷ Note, however, that these two number markers differ in terms of their position in the verb template, with /*mel(i)*/~/li/ considered part of the classifier stem slot (§6.1.3), while /-*p*/ fills the second slot in the verbal template (see below). Some examples of the DUAL/PLURAL contrast involving classifier stems which take /-*p*/ ~ /-*zɪp*/ DUAL SUBJECT-marking forms are given below in (707) - (709).

(707) a. *kaɖi ga ar kariŋa*
kadi =ka ar kari-p=a
 1DU.PRO =TOP DEM.1 1NSG.SIT.R-DU.S.INTR=PST
 ‘Us two were sitting here.’ (JoN: IG3-019-B)

b. *cer ga ar garija*
cer =ka ar kari=ja
 1PL.PRO =TOP DEM.1 1NSG.SIT.R=PST
 ‘We were sitting here.’ (JoN: IG3-019-B)

(708) a. *kaɖi ŋiniŋubaka*
kadi ŋin-p-ɣubak=a
 1DU.PRO 1NSG.GO.R.PFV-DU.S.INTR-fall=PST
 ‘Us two (EXCL) fell down.’ (JN: IG3-006-A)

b. *cer ŋenmelegubaka*
cer ŋinmeli-ɣubak=a
 1PL.PRO 1PL.GO.R.PFV-fall=PST
 ‘We (plural) fell down.’ (JN: IG3-006-A)

(709) a. *kaɖi kirizɪp̄paratandi*
kadi kiri-zɪp̄-βarat=andi
 1DU.PRO 1.PASS.R.IPFV-DU.S.INTR-pass=APPR
 ‘Us two (excl) might go past.’ (PT: IG3-033-B)

107. Each 3.SIT.R form has a (synchronically) unique stem form, e.g. /*kuzi*/ 3SG.SIT.R, /*kawu-p*/ 3.SIT.R-DU.S.INTR and /*kuli*/ 3PL.SIT.R. An alternate analysis of the non-singular forms could be that their number affixes are fused with the base.

- b. cer kinmelparatandi
 cer kinmel-βarat=andi
 1PL.PRO 1PL.PASS.R.IPFV-pass=APPR

‘We all might go past.’

(PT: IG3-033-B)

The DUAL SUBJECT marker is positioned in the second slot of the verb and as such, competes with the OBJECT/OBLIQUE markers for this position. The argument markers are always prioritised over DUAL SUBJECT for this position. This is clear to see for the */-ŋki/* form, as illustrated in (710) where, despite a semantic number distinction between dual (710a) and plural (710b) subjects, the semantically dual subject cannot receive */-ŋki/*-marking in (710a) due to the presence of the OBJECT marker, and the semantically dual and plural subjects are, therefore, not formally distinguished. On the other hand when the object is 3SG and, therefore, unmarked the DUAL SUBJECT marker can be present in the second verb slot (710c).

- (710) a. ŋiliwidimudija
 ŋili-widi-mudi=ja
 1NSG.BUMP.R.PFV-3DU.O-see=PST

‘We (dual/plural) saw those two.’

(PT: IG3-034-A)

- b. naŋ ma ji ŋilimudija
 naŋ ma= ji ŋili-mudi=ja
 3SG.M.PRO MASC= DEM.3 1NSG.BUMP.R.PFV-see=PST

‘We (plural) saw him.’

(JoN: IG3-027-A)

- c. naŋ ma ji ŋilingimudija
 naŋ ma= ji ŋili-ŋki-mudi=ja
 3SG.M.PRO MASC= DEM.3 1NSG.BUMP.R.PFV-DU.S-see=PST

‘Us two fellas saw him.’

(JoN: IG3-027-A)

Assessing the position of the */-ŋ/* form is more challenging because there are not many examples in the corpus where the OBJECT/OBLIQUE marker occurs on verbs where a semantically dual subject is expressed by the SIT or GO classifier stem. Therefore, we don’t observe a regular alternation between */-ŋ/* and an OBJECT/OBLIQUE marker filling this position (or alternately see both */-ŋ/* and an OBJECT/OBLIQUE co-occurring). A rare example shows an OBLIQUE marker following an */-ŋ/*-taking SIT classifier stem form. This construction expresses a semantically dual subject; however the DUAL SUBJECT marker */-ŋ/* is not present in this construction, suggesting that, like */-ŋki/*, */-ŋ/* fills the second verb slot.¹⁰⁸

108. Note that in (711) the OBLIQUE form is neutralised, so it doesn’t match the semantic number of the oblique argument in the translation - see §6.4 for details.

(711) **mari kandiwiṅmuriṅa**
 mari **kandi-wiṅ**-muriṅ=a
 LANG 2.SIT.R-3DU.OBL-talk=PST

‘You two talked to them (plural).’

(PT: IG3-024-B)

Further, in examples involving semantically dual subjects and EXCL SG/1INCL.DU OBJECT/OBLIQUE forms, a marker /*ni-*/ can precede the OBJECT/OBLIQUE in slot 2 and cross-reference a subject as DUAL (or in some cases PLURAL - see §6.1.2 for details), essentially performing a very similar subject-number marking function as /*ṅ-*/ (712).

(712) **naḍi mari kandiniṅinmuriṅ**
 nadi mari **kandi-ni-ṅin**-muriṅ
 2DU.PRO LANG 2.SIT.R-(U)AUG.S>MIN.O-1SG.OBL-talk

‘You two are talking to me.’

(PT: IG3-024-B)

Dual reciprocal constructions are also telling with respect to the positional analysis of /*ṅ-*/ . In some reciprocal constructions with dual participants, the /*ṅ-*/ form of the DUAL SUBJECT marker can be used to express dual reciprocal participants on classifier stems that don’t usually take the /*ṅ-*/ form (and in doing so, mark the construction as intransitive (§5.3.3.1)). Example (713a) below shows the /*ṅ-*/ form co-occurring with the CAUSE classifier stem, a normally /*ṅki-*-taking classifier stem, to mark DUAL reciprocal participants. This is contrasted in (713b) where the CAUSE classifier stem co-occurs with /*ṅki-*-marking in a non-reciprocal, dual subject construction. This demonstrates the complementary distribution of /*ṅ-*/ and /*ṅki-*/ and the independence of /*ṅ-*/ from the classifier stem.

(713) a. **gudiṅmelgawin** **majicuk**
 kudin-ṅ-mel=kawu-ṅ ma=cicuk
 3NSG.CAUSE.R.IPFV-DU.S.INTR-stare=3.SIT.R.IPFV-DU.S.INTR MASC=two

‘Two people are looking at each other.’

(ET: 20150714-JM-ET)

b. **niwiṅ ji kudiṅgimelgawin**
 niwiṅ ji **kudin-ṅki**-mel=kawu-ṅ
 3DU.PRO DEM.3 3NSG.CAUSE.R.IPFV-DU.S-stare=3.SIT.R.IPFV-DU.S.INTR

‘Those two fellas are looking at him.’

(JN: IG3-014-A)

The DUAL SUBJECT marking form /*ṅki-*/ co-occurs with the STAND and LIE classifier stems; however the position of the marker with regard to these classifier stems is exceptional. Generally the DUAL SUBJECT marker occurs classifier-internally between the subject marker and classifier root on these classifier stems, as shown in (714) and (715), and this is contrasted with the regular post-classifier root /*ṅki-*/ position shown in (716) with the SAY/DO classifier stem.¹⁰⁹

109. The classifier stems are analysed into their sub-parts to illustrate the point in these examples.

(714) nadi gininguwera
 nadi kini-ŋki-wer=a
 2DU.PRO 2.R-DU.S.INTR-LIE=PST
 ‘You two lay down.’ (UNK: 196905-DT-DO1009402)

(715) kiningijaŋa
 kini-ŋki-jaŋ=a
 2.R-DU.S.INTR-STAND=PST
 ‘You two stood up.’ ((UNK: 196905-DT-DO1009402))

(716) nađi ɸindi nimuŋgija
 nadi βindi ni-mi-ŋki=ja
 2DU.PRO WHERE 2NSG-SAY/DO.R.PFV-DU.S=PST
 ‘What did you two fellas say?’ (JN: IG3-006-A)

LIE rarely occurs in bipartite verbs in the corpus and only once in a DUAL SUBJECT example, given in (717). Here the DUAL marker is found in post-classifier root position.

(717) guweŋgikađitari
 kuwer-ŋki-kadiđari
 3NSG.LIE.R-DU.S-run
 ‘Those two are running.’ (CP: RN5-001-A)

STAND CMLX is analysed as a separate classifier stem to STAND, and STAND CMLX only occurs in bipartite verbs while STAND is reserved for simple verbs (note, however, that the forms and semantics of these two classifier stems are very similar and despite being formally TRANSITIVE based on its DUAL SUBJECT-marking characteristics, STAND CMLX patterns like an INTRANSITIVE classifier stem in many ways - see discussion in §5.3.3.1). In DUAL STAND CMLX forms (for which there is limited data) the standard post-classifier root position of /-ŋki/ is observed, as in (718); however variation in its position is documented in Green (1993a). See tables 6.6 - 6.8 which document the position of the DUAL SUBJECT marker on STAND, STAND CMLX and LIE classifier stems.¹¹⁰

110. Note that the majority of the data for the LIE classifier stem forms comes only from simple verb examples.

	R.IPFV	R.PFV	IRR
1INCL.DU	/kumbija-/	/ɲumbija-/	/ɲumbija-/
SG	1 /ɲija-/	/ɲaja-/	/ɲaja-/
	2 /kinija-/	/ɲinija-/	ɲinija-/
	3 /ka-/	/caɲa-/	/kaja-/
DU	1 /kirija-ɲki/	/ɲinija-ɲki/	/ɲinija-ɲki/
	2 /kinija-ɲki/ ~ /kiniɲkija-/	/naja-ɲki/	/naja-ɲki/
	3 /kuja-ɲki/ ~ /kuɲkija-/	/paja-ɲki/	/pirija-ɲki/
NSG	1 /kirija-/	/ɲirija-/	/ɲirija-/
	2 /kinja-/	/naja-/	/naja-/
	3 /kuja-/	/paja-/	/pirija-/

Table 6.8: STAND CMLPX classifier stem forms highlighting DUAL SUBJECT-marking forms

This internal position of the DUAL SUBJECT marker with the STAND and LIE classifier stems suggests that despite the sequence of subject marker and classifier root generally functioning as a unit, at least in these two classifier stems the subject marker appears to be relatively independent from the classifier root.¹¹¹

6.1.2 (UNIT) AUG SUBJECT>MIN OBJECT/OBLIQUE marker

Recall from §6.1.1 that the DUAL SUBJECT marker /-ɲki/ ~ /-ɲ/ is unable to be used when the second slot is filled by OBJECT/OBLIQUE. However, when the OBJECT/OBLIQUE marker filling the slot is EXCL SG or 1INCL.DU, subject number can still be expressed morphologically via a marker /ni-/ which can co-occur in slot 2 with the OBJECT/OBLIQUE marker. This marker co-occurs with SG forms of the OBJECT/OBLIQUE marker and cross-references the subject as DUAL, or it co-occurs with 1INCL.DU forms of the OBJECT/OBLIQUE marker and cross-references the subject as DUAL or PLURAL. We can account for this data if we propose that /ni-/ cross-references the subject as (UNIT) AUGMENTED. The examples below show /ni-/ co-occurring with SG OBJECT markers when the subject is semantically dual in (719a) and (720a), compared with its absence when the subject is semantically plural (719b) - (720b).¹¹²

111. Note that in Marrithiyel a NSG SUBJECT number marker /ɲ/ displays this same anomalous position with the equivalent STAND and LIE classifier stems (Green 1989, pp. 78–79).

112. /ni-/ co-occurs with the regular forms of almost all OBJECT and OBLIQUE marking forms. However, the 2SG OBJECT form which co-occurs with /ni-/ is not the regular form /-ɲ/, but instead /-mbi/, a form which is homophonous with the 2SG OBLIQUE form.

- (i) a. kaɖi ga niɲ ɲilinimbimudija
kadi =ka niɲ ɲili-ni-mbi-mudi=ja
1DU.PRO =TOP 2SG.PRO 1NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-2SG.O-see=PST
‘Us two saw you.’ (JoN: IG3-027-A)
- b. jin ɲulipmudija kinijeɲa
jin ɲuli-ɲ-mudi=ja kinijaɲ=a
1SG.PRO 1SG.BUMP.R.PFV-2SG.O-see=PST 2SG.STAND.R=PST
‘I saw you standing up there.’ (PT: IG3-019-B)

- (719) a. niwɨŋ ji majicuk
niwɨŋ ji ma=cicuk
3DU.PRO DEM.3 MASC-two
pulinungurpa
puli-ni-ŋ-kurp=a
3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1SG.O-hit=PST
‘Those two fellas hit me.’ (PT: IG3-015-B)
- b. niwir ma ji pulingurpa ma pundi
niwir ma= ji puli-ŋ-kurp=a ma= pundi
3PL.PRO MASC= DEM.3 3NSG.BUMP.R.PFV-1SG.O-hit=PST MASC= hand
ŋiŋji
ŋiŋci
one
‘Those five fellas hit me.’ (PT: IG3-015-B)

- (720) a. ϕ iriniŋ β undibacni
piri-ni-ŋ-pundibac=ni
3NSG.HANDS.IRR-(U)AUG.S>MIN.O-1SG.O-take=FUT
‘Those two are gonna take me.’ (JN: IG3-013-B)
- b. niwir ji piriŋ β undibacni
niwir ji piri-ŋ-pundibac=ni
3PL.PRO DEM.3 3NSG.HANDS.IRR-1SG.O-take=FUT
‘That mob’s gonna take me.’ (JN: IG3-015-B)

Examples (721) - (722) show that when /ni-/ co-occurs with the 1INCL OBJECT/OBLIQUE marker, it signals that the subject is either dual ((721a) and (722a)), or plural ((721b) and (722b)), while (721c) shows that it is absent when the subject is singular.¹¹³

- (721) a. niwɨŋ ji
niwɨŋ ji
3DU.PRO DEM.3
puliniŋgimudija
puli-ni-ŋki-mudi=ja
3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1INCL.DU.O-see=PST
‘Those two saw you and me.’ (JoN: IG3-034-A)

113. Note that the PLURAL form of the subject marker is used in both (722a) and (722b) due to subject neutralisation. See §6.4 for details.

Despite this flexibility in the marking of DUAL SUBJECT, there is a difference in the number information provided by /*ni-*/ and /-*ŋki/* ~ /-*ɲ/*: /-*ŋki/* ~ /-*ɲ/* simply marks DUAL SUBJECT (and provides transitivity information about the classifier stem), while /*ni-*/ marks a relationship between the OBJECT/OBLIQUE and SUBJECT arguments (and can also mark PLURAL SUBJECT). The data illustrated in this section suggests a minimal-augmented interpretation of this part of the argument number marking system. /*ni-*/ co-occurs with OBJECT/OBLIQUE markers with a MINIMAL number value (SG for EXCL forms and DUAL for the 1INCL form) and marks the subject as (UNIT) AUGMENTED in relation to the number value of the OBJECT/OBLIQUE: when the OBJECT/OBLIQUE is SG (i.e. MINIMAL), attachment of /*ni-*/ indicates that the subject is DUAL (i.e. UNIT AUGMENTED); when the OBJECT/OBLIQUE is INCL.DU (also MINIMAL), /*ni-*/ indicates that the subject is either DUAL or PLURAL (i.e. (UNIT) AUGMENTED). See also §6.3 for discussion of minimal-augmented aspects of the argument number system. This data is interesting because it shows a dependency between the number value of two separate arguments: the OBJECT/OBLIQUE marker and the SUBJECT. It is also interesting that /*ni-*/ marking on INCL OBJECT/OBLIQUE arguments indicates (UNIT) AUGMENTED EXCL subject: these number categories are collapsed elsewhere in the grammar for INCL arguments (in the free personal pronouns), but not elsewhere for EXCL arguments.

6.1.3 PLURAL SUBJECT marker

On the verb, semantically (exclusive) plural subjects are usually expressed only through the presence of the NSG classifier stem, as in (724) below.

- (724) niwir ϕ iriŋtakni
 niwir piŋiŋ-tak=ni
 3PL.PRO 3NSG.SWING.IRR-build=FUT
 ‘That mob are going to build (a house).’ (JN: IG3-008-A)

However, three INTRANSITIVE classifier stems, SIT, GO and PASS can take a PLURAL SUBJECT marker /-*mel(i)/* ~ /-*li/*. The PASS classifier stem probably developed from GO as some of their forms are identical. The SIT classifier stem, whose forms are generally more fused than other classifier stem forms (see table 6.3 above in §6.1.1), has two forms which take the PLURAL SUBJECT marker, but only in the reduced form /-*li/*. In examples (725) - (727), the plural forms containing /-*mel(i)/* ~ /-*li/* contrast with SG and DUAL third person forms. Note that /-*mel(i)/* ~ /-*li/* is not shown segmented from the classifier stem in the examples below as it is considered a sub-part of the classifier stem (see discussion below).

- (725) a. naŋ ŋariβin wanigubaka
 naŋ ŋariβin wani-yubak=a
 3SG.M.PRO just 3SG.GO.R-fall=PST
 ‘He just fell down.’ (HK: 1972-MW-M02004364A)

- b. niwiŋ panɪŋgubaka
niwiŋ pan-ŋ-ɣubak=a
3DU.PRO 3NSG.GO.R-DU.S.INTR-fall=PST
‘Two fellas fell down.’ (JN: IG3-006-A)
- c. niwir panmeligubaka
niwir panmeli-ɣubak=a
3PL.PRO 3PL.GO.R.PFV-fall=PST
‘They fell down.’ (JN: IG3-006-A)
- (726) a. naŋ ɸiŋjiriβarata
naŋ piŋjiri-βarat=a
3SG.M.PRO 3SG.PASS.R.PFV-pass=PST
‘One man went past.’ (JoN: IG3-026-B)
- b. niwiŋ ma ji parizɪŋparata
niwiŋ ma= ji pari-zɪŋ-βarat=a
3DU.PRO MASC= DEM.3 3.PASS.R.PFV-DU.S.INTR-pass=PST
‘Those two men went past.’ (PT: IG3-033-B)
- c. niwir panmeliparata
niwir panmeli-βarat=a
3PL.PRO 3PL.PASS.R.PFV-pass=PST
‘They went past.’ (JoN: IG3-033-B)
- (727) a. naŋ ji kuzu wajini
naŋ ji kuzi wajini
3SG.M.PRO DEM.3 3SG.SIT.R on.top
‘He’s sitting up top there.’ (JN: IG3-012-A)
- b. kawɪŋa
kawu-ŋ=a
3.SIT.R-DU.S.INTR=PST
‘Those two sat down.’ (UNK: 196905-DT-DO1009402)
- c. kulija
kuli=ja
3PL.SIT.R=PST
‘That mob sat down.’ (UNK: 196905-DT-DO1009402)

While the DUAL SUBJECT marker */-ŋki/* ~ */-ɲ/* fills the second verb slot (§6.1.1), the PLURAL SUBJECT marker */-meli(i)/* ~ */-li/* forms part of the classifier stem in the first verb slot. This is based on the fact that */-meli(i)/* ~ */-li/* can co-occur with an OBJECT/OBLIQUE marker (728), i.e. a marker that occurs in the second slot.

- (728) niwir ma ji panmeliŋpira
 niwir ma= ji panmeli-ŋ-pir=a
 3PL.PRO MASC= DEM.3 3PL.GO.R.PFV-1SG.O-leave=PST

‘That mob left me.’

(PT: IG3-037-A)

Further, on REALIS PERFECTIVE forms of the GO and PASS classifier stems, the form of the PLURAL marker is vowel-final */-meli/*. The REALIS PERFECTIVE forms of six classifier stems have this final */i/*, in contrast to IRREALIS forms of those same classifier stems which lack it, and this vowel may be an historical, or only partially productive, marker of perfectivity (§7.1.2) (REALIS PERFECTIVE and IRREALIS series of the same classifier stem are otherwise often syncretic in the classifier stem system). The */i/* usually occurs directly after the classifier root (as part of the classifier stem in slot 1), as in (729a), cf. (729b), except on forms containing the PLURAL SUBJECT marker, in which case it follows the PLURAL SUBJECT marker (730a), cf. (730b). That */i/* follows the PLURAL marker adds support to an analysis that */-meli(i)/* ~ */-li/* forms part of the classifier stem in the first verb slot.

- (729) a. naŋ ŋulimudija
 naŋ ŋuli-mudi=ja
 3SG.M.PRO 1SG.BUMP.R.PFV-see=PST

‘I saw him.’

(JoN: IG3-027-A)

- b. wacki ŋulmudini
 wacki ŋul-mudi=ni
 later 1SG.BUMP.IRR-see=FUT

‘I’ll see him later.’

(HK: 197207-MW-M02004362B)

- (730) a. cer naja ŋinmeliβarata
 cer naja ŋinmeli-βarat=a
 1PL.PRO before 1PL.PASS.R.PFV-grab=PST

‘We all went past before.’

(JoN: IG3-024-A2)

- b. cer gu ŋinmelβaratni
 cer ku ŋinmel-βarat=ni
 1PL.PRO 2.DEM 1PL.PASS.IRR-grab=FUT

‘We’re all gonna go past.’

(PT: IG3-024-A2)

The PLURAL marker */-mel(i)/~/-li/* is possibly related to the Emmi number marker */mede/*, which is analysed as a unit augmented marker in Ford (1998, p. 126). An example of this marker is given below in (731). This marker appears further down in the verb template than Marri Ngarr */-mel(i)/ ~ /-li/*, though perhaps historically these verbs were structured differently so that the classifier stem and lexical stem appeared as separate words, and this type of affix developed different attachment sites.

- (731) **ɲije-ɲe-wut-mede = ji**
 1MIN.LIE.R-AUG.DAT-give-UAUG=PFV
 ‘I gave it to those two men.’ (Emmi: Ford 1998: 169)

6.2 AUGMENTED number marker

The enclitic */=nim/* is an AUGMENTED (AUG) number marker. It indicates that the overall semantic number value of an argument is one category higher than the number value constructed by other argument number markers co-occurring on the verb. It can combine with INCL/EXCL SUBJECT and OBJECT/OBLIQUE arguments. Its presence in combination with EXCL arguments results in a paucal interpretation (recall from §4.4.1 that semantic paucal number is defined as having a value similar to English ‘a few’ with a lower bound of three and no clearly defined upper bound) (732). However, when */=nim/* co-occurs with INCL arguments, the paucal/plural number distinction is neutralised. In (733) we see */=nim/* co-occurring with the INCL subject in both constructions. (733a) was offered as the Marri Ngarr translation of the English construction where the subject has the number value of ‘three’, while (733b) was offered as a translation of a construction where the subject can be interpreted as more typically plural. In both of these constructions, the combination of INCL argument and */=nim/* can simply be interpreted as expressing a number value of three or more.

- (732) **kaɲinim ɲiriŋgibanima cuja**
kadi=nim ɲiri-ɲki-ba=nim=a cuja
 1DU.PRO=AUG 1NSG.MOUTH.R.PFV-DU.S-come=AUG=PST yesterday
 ‘We three (excl) came yesterday.’ (HK: 1972-MW-M02004365A)

- (733) a. **kaɲinim ɲumungurpnima**
kaɲki=nim ɲumbup-kurp=nim=a
 1INCL.DU.PRO=AUG 1INCL.DU.SWING.R.PFV-hit=AUG=PST
 ‘We three fellas hit him before.’ (PT: IG3-018-A)

- b. *kaŋginim* *ar* *kambunim*
kaŋki=nim *ar* *kambu=nim*
 1INCL.DU.PRO=AUG DEM.1 1INCL.DU.SIT.R=AUG

‘All of us are sitting here.’ (HK: 197207-MW-M02004363A)

/=nim/ can attach to the verb and/or to INCL/EXCL DUAL forms of the independent personal pronouns. In clauses containing both a verb and personal pronoun, the number enclitic is generally present on both of these elements (734), and can also be present on both verbs in clauses containing two verbs (735).

- (734) *kaŋginim* *ŋumbubanima* *cuja*
kaŋki=nim *ŋumbu-ba=nim=a* *cuja*
 1INCL.DU.PRO=AUG 1INCL.DU.MOUTH.R.PFV-come=AUG=PST yesterday

‘We all came yesterday.’ (RK: 1972-MW-M02004365A)

- (735) *kaŋginim* *kumbiwirnim* *kumbiwirmuriŋnim*
kaŋki=nim *kumbiwir=nim* *kumbuwir-muriŋ=nim*
 1DU.INCL.PRO=AUG 1INCL.DU.LIE.R=AUG 1INCL.DU.LIE.R-talk=AUG

‘Us three fellas are lying down talking.’ (PT: IG3-021-A)

/=nim/ can only appear on the verb when the value of other number markers on the verb is already DUAL, which can be achieved in various ways. The subject can be INCL, which is inherently DUAL.

- (736) *ŋumbudiwicinima*
ŋumbudi-wici=nim=a
 1INCL.DU.CAUSE.IRR-roll-AUG=PST

‘We (INCL) all rolled it up.’ (UNK: 196905-DT-DO1009402)

An EXCL subject can be marked NSG on the classifier stem and in addition take the DUAL SUBJECT marking form */-ŋki/* (737a) or */-ŋ/* (737b).

- (737) a. *kulingijirgawijnim* *ma*
kul-ŋki-cur=kawu-ŋ=nim *ma=*
 3SG.BUMP.R.IPFV-DU.S-cut.PL=3.SIT.R.IPFV-DU.S.INTR=AUG MASC=
annimbir
annimbir
 three

‘Three men are chopping wood.’ (ET: 20150627-JM-ET-03)

- b. **ma annimbir wunijwiliwilinim**
 ma= annimbir **kun-ŋ-wili~wili=nim**
 MASC= three **3NSG.GO.R.IPFV-DU.S.INTR-REDUP~walk=AUG**
cendiwuri
 cendi=wuri
 spear=TOWARDS

‘The three men are walking with spears.’ (ET: 20150627-JM-ET-03)

For an OBJECT/OBLIQUE to take /=nim/, it must either be INCL (738a), which again is inherently DUAL, or it must be an EXCL DUAL marked OBJECT/OBLIQUE (738b). Note that (738b) is the only example in the corpus of an EXCL DUAL non-SUBJECT argument associating with /=nim/. The AUGMENTED marker /=nim/ overwhelmingly associates with INCL OBJECTS/OBLIQUES, presumably because EXCL OBJECTS/OBLIQUES markers have alternate strategies for marking number categories larger than DUAL, i.e PLURAL OBJECT/OBLIQUE forms.

- (738) a. **kaŋginim naŋ maji**
 kaŋki=nim naŋ ma=ji
 1INCL.DU.PRO=AUG 3SG.M.PRO MASC=DEM.3
aŋiŋkitirnima
 aŋ-ŋki-tir=nim=a
 3SG.SWING.R.PFV-1INCL.DU.O-miss=AUG=PST

‘He missed us (with the spear).’ (PT: IG3-025-B)

- b. **kaɖinim jeŋiŋβapnim**
 kadi=nim je-ŋiŋ-βap=nim
 1DU.PRO=AUG 2SG.MOUTH.IRR-1DU.OBL-transfer=AUG

‘Give it to us three.’ (HK: 1972-MW-M02004364B)

Arguments with the semantic number value of ‘three’ were almost always used to elicit EXCL number distinctions between DUAL and other number categories in the corpus; therefore in examples involving EXCL arguments in combination with the DUAL SUBJECT marker and /=nim/, the argument number value is always translated as ‘three’. A contrast is given below between the number categories of EXCL DUAL (739a), PLURAL (739b) and a third example where the argument number is translated as ‘three’.

- (739) a. **naɖi majicuk ku namaŋiparat**
nadi ma=cicuk ku nam-ŋki-βarat
2DU.PRO MASC=two DEM.2 2NSG.PIERCE.IRR-DU.S-grab

‘You two grab him.’ (PT: IG3-018-A)

- b. *ner magwu ŋalpu gu nambarat*
ner ma=ku=wu ŋalpu ku nam-βarat
 2PL.PRO MASC=DEM.2=WU many DEM.2 2NSG.PIERCE.IRR-grab
 ‘You (plural) grab him.’ (PT: IG3-018-A)
- c. *naɟɪnim ma annimbir ku namaŋgiparatnim*
nadi=nim ma= annimbir ku nam-ŋki-βarat=nim
 2DU.PRO=AUG MASC= three DEM.2 2NSG.PIERCE.IRR-DU.S-grab=AUG
 ‘You three fellas grab him.’ (PT: IG3-018-A)

However, some evidence shows that the combination of EXCL DUAL arguments and */=nim/* renders a paucal interpretation rather than trial. One example, given below in (740), shows that when */=nim/* attaches to a DUAL form of a personal pronoun it can be interpreted as ‘three or four’. In other EXCL subject examples such as (741), exact number is not specified in the translation. Therefore, I assume that */=nim/* combines with EXCL argument number markers to render paucal argument number.

- (740) *niwijnim*
niwijn=nim
 3DU.PRO=AUG
 ‘Three or four people.’ (HK: 197207-MW-M02004362B)
- (741) *kunɪkiɟɪɟɪnima*
kun-ɲ-kiɟɪɟɪ=nim=a
 3NSG.GO.R.IPFV-DU.S.INTR-play=AUG=PST
 ‘They are playing.’ (ET: 20150627-JM-ET-03)

When both arguments of a bivalent verb are eligible for combining with */=nim/*, OBJECT always wins out. In (742) - (743) below, the SUBJECT is potentially eligible for */=nim/*-marking as it is cross-referenced by */ni-/* (§6.1.2); however it is clear that */=nim/* marks the INCL OBJECT as its features agree with the */=nim/*-marked independent personal pronoun.

- (742) *ma ji piɲinikigurpnima*
ma= ji piɲ-ni-ŋki-kurp=nim=a
 MASC DEM.3 3NSG.SWING.R.PFV-(U)AUG.S>MIN.O-1INCL.DU.O-hit=AUG=PST
kaŋginim
kaŋki=nim
 1INCL.DU.PRO=AUG
 ‘They beat up all of us.’ (PT: IG3-021-B)

(743) niwir ma ji
niwir ma= ji
3PL.PRO MASC= DEM.3
pulinigigapnima
puli-ni-ŋki-ɣap=nim=a
3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1INCL.DU.O-throw.at=AUG=PST
kaŋginim je.ɟi karila ɲarin
kaŋki=nim je.ɟi karila =ɲarin
1INCL.DU.PRO=AUG WEAP rock =INSTR

‘They threw a rock at us.’ (PT: IG3-039-A)

This data involving the AUGMENTED marker again demonstrates the interdependencies in the number system. /=*nim*/ does not itself have any inherent number value and is instead reliant on the number values of other number markers, to which it adds a number category.

6.3 Minimal-augmented distinctions for 1INCL

While EXCL argument markers can distinguish SINGULAR, DUAL, PAUCAL and PLURAL number, INCL argument markers do not exhibit as many number category distinctions. The three tables below illustrate the difference in number category distinctions between INCL and EXCL arguments for SUBJECT (demonstrated with the REALIS PERFECTIVE forms of the BUMP classifier stem) in table 6.9, OBLIQUE¹¹⁴ in table 6.10 and personal pronouns in table 6.11. As illustrated in each table, while EXCL argument markers have unique forms to distinguish SG/NSG and the NSG forms combine with the DUAL SUBJECT and AUGMENTED¹¹⁵ number markers to express more specific DUAL and PAUCAL categories (thus also resulting in a PLURAL interpretation of the unmarked NSG form), for INCL arguments the PAUCAL and PLURAL categories are collapsed and the INCL forms only distinguish DUAL and PLURAL, with the DUAL category expressed by the base INCL form while the PLURAL is rendered by the attachment of the AUGMENTED marker to this base form.

	SG	DUAL	PAUCAL	PLURAL
1incl	-	/ŋumbuli/	/ŋumbuli =nim/	
1	/ɲul(i)/	/ɲili-ŋki/	/ɲili-ŋki =nim/	/ɲili/
2	/ɲindili/	/nuli-ŋki/	/nuli-ŋki =nim/	/nuli/
3	/pali/	/puli-ŋki/	/puli-ŋki =nim/	/puli/

Table 6.9: SUBJECT number distinctions of the R.PFV forms of the BUMP classifier stem

114. The number distinctions for OBJECT markers are the same as for OBLIQUE.

115. Note that the co-occurrence of the AUGMENTED marker and EXCL OBJECT/OBLIQUE markers is extremely rare: it is only observed in one example, with the 1DU.OBL marker. The other PAUCAL forms in table 6.10 where OBLIQUE co-occurs with the AUGMENTED marker are, therefore, unattested in the corpus.

	SG	DUAL	PAUCAL	PLURAL
1incl	-	/ŋki/	/ŋki =nim/	
1	/ŋin/	/ŋip/	/ŋip =nim/	/((ŋ)kir/
2	/((m)bi/	/nip/	/nip =nim/	/((n)dir/
3	MASC /ni/	/wip/	/wip = nim/	/wir/
	FEM /ŋ/			

Table 6.10: OBLIQUE number distinctions

	SG	DUAL	PAUCAL	PLURAL
1incl	-	/kaŋki/	/kaŋki =nim/	
1	/jin/	/kadi/	/kadi =nim/	/cer/
2	/nip/	/nadi/	/nadi =nim/	/ner/
3	MASC /naŋ/	/niwip/	/niwip =nim/	/niwir/
	FEM /ŋa/			

Table 6.11: Personal pronoun number distinctions

The INCL argument data can be more elegantly captured if we consider the INCL argument number distinction as minimal-augmented, where the base form is the MINIMAL form and attachment of the AUGMENTED number marker to the base renders the AUGMENTED form, which can have a cardinality of three or more. A minimal-augmented distinction is also evident in examples involving the (U)AUG.S>MIN.O marker. This marker only co-occurs with MINIMAL forms of OBJECT/OBLIQUE forms, either EXCL SG, or INCL.DU. When it co-occurs with EXCL OBJECT/OBLIQUE markers it cross-references the SUBJECT as DUAL, while when it co-occurs with INCL OBJECT/OBLIQUE markers, it cross-references the SUBJECT as either DUAL or PLURAL. See §6.1.2 for further details.

6.4 Pronominal number neutralisation

Verbs involving combinations of subject and object/oblique arguments with certain semantic number values create environments where a mismatch can arise between the number value marked morphologically on the pronominal markers and the semantic number of these arguments. Basically, when the subject is semantically dual and the object/oblique is semantically non-singular, the morphological distinction between DUAL and PLURAL is neutralised for both types of arguments. Object/oblique arguments are marked as DUAL regardless of whether they are semantically dual or plural. For classifier stems which exhibit a morphological DUAL/PLURAL distinction, this gets neutralised in the same environment and subject arguments are marked as PLURAL.¹¹⁶ Table 6.12 provides the possible semantic number category combinations for subject and object/oblique arguments along the axes, and marks the environments where neutralisation can occur. Tick marks indicate these neutralisation environments, while crosses occur where semantic and grammatical number of both arguments match. Number categories of the

116. Examples where plural subjects co-occur with plural objects/obliques are rare in the corpus; however when they occur, there is no evidence of neutralisation (i) - (ii).

- b. *nađi ga muku ji namiwidiparata*
nadi =ka muku ji nam-widi-βarat=a
 2DU.PRO =TOP woman DEM.3 2NSG.PIERCE.R.PFV-3DU.O-grab=PST
 ‘You two grabbed all those women.’ (PT: IG3-022-A: 29)

- (745) a. *nađi ma ĵicuk ku nawuñinmazi*
nadi ma= cicuk ku nawu-ñin-mazi
 2DU.PRO MASC= two DEM.2 2NSG.SIT.IRR-1DU.OBL-wait
 ‘You two fellas wait for us two.’ (PT: IG3-022-A: 56)

- b. *nađi nawuñinmazi cer*
nadi nawu-ñin-mazi cer
 2DU.PRO 2NSG.SIT.IRR-1DU.OBL-wait 1PL.PRO
 ‘You two wait for all of us.’ (JoN: IG3-022-A: 57)

Neutralisation in this environment does not always occur. It is unclear if it is simply optional, or if there is some other feature which can influence its occurrence. In (746) the OBJECT forms distinguish between DUAL and PLURAL even though the subject is semantically dual.

- (746) a. *nađi ma ĵicuk ku nididiθañjiljilni*
nadi ma= cicuk ku nadi-kidi-ṭaṅ-jil~jil=ni
 2DU.PRO MASC= two DEM.2 2NSG.CAUSE.IRR-1DU.O-ear-REDUP~tell.truth=FUT
 ‘You two will teach us two.’ (PT: IG3-022-A)
- b. *nađi ma ĵicuk ku nadingiriṭaṅjiljilni*
nadi ma= cicuk ku nadi-ṅkir-ṭaṅ-jil~jil=ni
 2DU.PRO MASC= two DEM.2 2NSG.CAUSE.IRR-1PL.O-ear-REDUP~tell.truth=FUT
 ‘You two will teach all of us.’ (PT: IG3-022-A)

A similar mismatch of semantic and morphological number can sometimes be observed for subject arguments. Though most classifier stems only distinguish SG and NSG, the GO, PASS and some SIT classifier stem forms have DUAL and PLURAL forms (§6.1.3). When GO and SIT occur in constructions with semantically dual subjects and non-singular object/oblique arguments number mismatches are also observed between the semantic number of subjects and the number of the SUBJECT markers.¹¹⁷ A small number of examples demonstrate this mismatch in subject number. In (747) the subject and oblique

117. These number mismatches would also be expected in constructions involving the PASS classifier stem; however the relevant subject and object/oblique number combinations are not present in the corpus.

arguments are both semantically dual but the classifier stem uses the PLURAL SUBJECT form.¹¹⁸

- (747) niwɨj ʝi ambu kumelningimuriŋ
 niwɨj ʝi ambu kumel-ni-ŋki-muriŋ
 3DU.PRO DEM.3 NEG 3PL.GO.R-(U)AUG.S>MIN.O-1INCL.DU.OBL-talk
 ‘Those two aren’t talking to us two.’ (PT: IG3-022-B)

Likewise, in (748a) below both arguments are semantically dual but the subject takes the PLURAL form, while in (748b) the subject is semantically dual but marked as PLURAL while the object is semantically plural but marked as DUAL: a mismatch which results in a type of reversal of NSG number encoding on the pronominal markers.

- (748) a. kaɟi ŋinmeldidipirni
 kadi ŋinmel-didi-pir=ni
 1DU.PRO 1PL.GO.IRR-2DU.O-leave=FUT
 ‘Us two will leave you two.’ (JoN: IG3-033-B: 38)
- b. kaɟi ner ari ŋinmelitidipirni
 kadi ner ari ŋinmeli-didi-pir=ni
 1DU.PRO 2PL.PRO DEM.1 1PL.GO.IRR-2DU.O-leave=FUT
 ‘Us two will leave you mob.’ (JoN: IG3-033-B: 39)

Similar to what we observed for object/oblique neutralisation, neutralisation of the subject argument appears to be optional (749).

- (749) a. mari kandiwiŋmuriŋa
 mari kandi-wiŋ-muriŋ=a
 LANG 2.SIT.R-3DU.OBL-talk=PST
 ‘You two talked to them.’ (PT: IG3-024-B: 49)
- b. mari kindiliwiŋmuriŋa
 mari kindili-wiŋ-muriŋ=a
 word 2PL.SIT.R-3DU.OBL-talk=PST
 ‘You two talked to them.’ (PT: IG3-024-B: 50)

An alternative to a neutralisation analysis could propose that the OBJECT/OBLIQUE marking forms could be further segmented into sequences of person and number markers and

118. Note that when the (U)AUG.S>MIN.O marker /ni-/ co-occurs with an INCL OBJECT/OBLIQUE it can mark the subject as either UNIT AUGMENTED (DUAL) or AUGMENTED (PLURAL) (§6.1.2), so does nothing to narrow down the number value here.

that rather than necessarily expressing the number value of the object/oblique argument, this number marker could optionally express the number value of the subject. In this way, there would be no neutralisation: the number marker would provide subject number and the object/oblique argument would be left unspecified for number. For example in (744a), repeated here as (750), /-wi-/ would mark the object as third person but it would be left unspecified for (NSG) number, while /-di-/ would mark the subject as DUAL.

(750) *nađi ga muku ji namiwidiparata*
nadi =ka muku ji nam-wi-di-βarat=a
 2DU.PRO =TOP woman DEM.3 2NSG.PIERCE.R.PFV-3.O-DU.ARG-grab=PST

‘You two grabbed all those women.’ (PT: IG3-022-A: 29)

However, it seems inefficient to firstly encode a semantically dual subject as PLURAL, then override that with a separate DUAL marker further along in the verb template, as would be the case in (751) (repeated from (748a) above). Simply marking the subject as DUAL would be more straightforward. While as we have seen so far in this chapter there are many examples of morphological dependencies in the verb in the construction of argument number, all other dependencies involve a building up of from an underspecified to a specific number category, while this alternate analysis would propose a number marker which already has a specific number value being overridden by a marker with a different specific number value.

(751) *kađi ŋinmeldidipirni*
kadi ŋinmeli-di-di-pir=ni
 1DU.PRO 1PL.GO.IRR-2.O-DU.ARG-leave=FUT

‘Us two will leave you two.’ (JoN: IG3-033-B: 39)

Neutralisation is found in other Australian languages such as Warlpiri (Hale 1973, pp. 330–2) and the Eastern Ngumpin languages Mudbura, Bilinearra and Gurindji (McConvell 1980, pp. 52–6). In the simple version of the phenomenon, documented for Eastern Warlpiri (and also Walmanpa and Warumungu), Mudburra, Bilinearra and Eastern Gurindji, SUBJECT and OBJECT clitics (both of which usually distinguish between SG, DUAL and PLURAL) are marked as PLURAL if both the semantic subject and object are non-singular. That is, semantically plural clitics are always matched with their form, but semantically dual clitics are marked as PLURAL if both arguments are non-singular. The characteristics of argument number neutralisation in Marri Ngarr differ to some extent from that described for Eastern Walpiri and the Eastern Ngumpin languages. While neutralisation in Walpiri and Eastern Ngumpin involves semantically non-singular arguments, in Marri Ngarr the environment that triggers neutralisation is more specific: the subject must be semantically dual (and the object/oblique non-singular). Further, while in Walpiri and the Eastern Ngumpin languages neutralisation always results in PLURAL-marked arguments, in Marri Ngarr OBJECT/OBLIQUE markers take the DUAL form when they neutralise (while subject neutralisation results in PLURAL marking). Cross-linguistically, the DUAL number category is more marked than PLURAL (Corbett 2000, pp. 38–9) so neutralisation to the DUAL form is unexpected.

6.5 Summary

This chapter has illustrated an array of argument number markers that can occur on the verb and function in combination with each other to render semantic number interpretations of arguments, particularly subject arguments. This data provides strong evidence in support of word-based theories of morphology (e.g. Stump (2001) and Blevins, Ackerman, and Malouf (2018)) as opposed to morpheme-based theories. Firstly, semantic argument number is often constructed from more than one morphological marker: while there are some argument number categories which can be expressed through the use of only one number marker (e.g. SG forms of SUBJECT markers express semantically singular subjects, though these markers could also simply be considered unmarked), it is more often the case that argument number categories are constructed through the use of two or more number markers interspersed through the verb. For example exclusive dual subject number is rendered through the combination of the NSG SUBJECT marker and the DUAL SUBJECT number marker /-*ŋki*/ ~ /-*ɲ*/. The DUAL SUBJECT number marker is reliant on the NSG SUBJECT marker; it is unable to occur in its absence. In this respect, it has no meaning outside of this context. Likewise, the AUGMENTED marker /=*nim*/ is used to add value to a number category expressed by other number markers co-occurring on the verb. The number value it expresses is dependent on that of those co-occurring number markers. When co-occurring with EXCL number markers it contributes to the construction of paucal number, while when co-occurring with INCL forms it contributes to the expression of plural number (paucal and plural number categories are conflated in the inclusive). Further, there can be more than one strategy for expressing a particular number category. If the DUAL SUBJECT number marker /-*ŋki*/ ~ /-*ɲ*/ can't be used to express a semantically dual subject because the second slot is already filled, the number marker /*ni*-/ which co-occurs with SG/INCL OBJECT/OBLIQUE markers cross-references an exclusive subject as DUAL (UNIT AUGMENTED). Finally, the neutralisation data shows that even when a semantic number value can be expressed via one morphological marker (e.g. the OBJECT/OBLIQUE markers have DUAL and PLURAL forms which can be used to express semantically dual and plural object/oblique arguments), sometimes the form used doesn't reflect the actual semantic number values of the argument.

In this chapter, I have demonstrated the function of several argument number markers which are interspersed through the verb. In the next chapter I move onto a discussion of tense, aspect and mood, which as we will see, is also encoded via markers distributed through the verb.

Chapter 7

Tense, aspect and mood

In Chapter 6 we saw how semantic argument number can be constructed through the combination of various argument number markers on the verb. TAM expression also exhibits this distributed exponence (Carroll 2022): Marri Ngarr has a composite system where the overall TAM is usually created via the combination of more than one TAM marker. Like argument number markers, the TAM markers are interspersed through the verb. The verb template is repeated in 7.1 (with a simplified version of slot 1) with elements used for encoding TAM given in bold. This chapter describes the individual TAM features encoded by these markers and the ways in which they are marked on the verb, before exploring the overall TAM interpretations rendered via the various combinations of TAM markers.

1	2	3	4	5	6	7	8	9	10	11	12
CLASSIFIER STEM	DUAL SUBJECT/ (U)AUG SUBJ>MIN.O- OBJECT/OBLIQUE	body part noun/ APPLICATIVE	lexical stem	ADJUNCT	MALEFACTIVE	adverbial	RECIPROCAL	SERIAL CLASSIFIER	DUAL SUBJECT	AUGMENTED ARG	TENSE/MOOD

Table 7.1: (Simplified) verb template with TAM slots highlighted

Various formal strategies are used to mark MOOD and ASPECT distinctions on the classifier stem and these are examined in §7.1. A subset of classifier stems can also function as serial verbs to mark an event as IMPERFECTIVE; the characteristics of these elements are described in §7.1.3. TENSE markers and a MODAL marker are briefly outlined in §7.2; this section then provides an overview of the possible combinations of all of these types of TAM markers in the language. The categories of REALIS/IRREALIS and their mapping to notions of actualisation/non-actualisation are widely accepted (e.g. Mithun 1995, p. 386; Elliot 2000, p. 56), though somewhat controversial (Bybee, Perkins, and Pagliuca 1994; Bybee 1998; von Prince, Krajcinovic, and Krifka 2022). In the remaining sections, §7.2.1 - §7.2.4, I explore the semantics of the TAM combinations, in particular in the context of the mapping from morphological marking of REALIS/IRREALIS to semantic concepts

of actualisation/non-actualisation of events. I find that generally, the Marri Ngarr data provides evidence for the validity of an actualisation/non-actualisation distinction in the language.

7.1 Classifier TAM

All TRANSITIVE classifier stems make a three-way formal contrast between REALIS IMPERFECTIVE,¹¹⁹ REALIS PERFECTIVE and IRREALIS, while INTRANSITIVE classifier stems vary in whether they mark the perfectivity distinction: SIT, STAND, LIE and TRAVEL just distinguish between REALIS/IRREALIS while PASS, which only appears in bipartite verbs, maintains the three-way contrast. GO maintains the three-way contrast only in bipartite verbs: when it functions as a simple verb it only distinguishes REALIS/IRREALIS.

Table 7.2 provides a typical classifier stem paradigm with the SWING classifier stem, which maintains the three-way contrast. When a classifier stem doesn't possess the perfectivity distinction, its REALIS forms resemble the REALIS IMPERFECTIVE forms of those classifier stems which do exhibit this distinction, in that they are generally /k/-initial (excluding 1SG forms). This is illustrated via comparison of the REALIS IMPERFECTIVE forms in table 7.2 and the REALIS forms of the LIE classifier stem in 7.3.

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbuɲ-/	/ɲumbuɲ-/	/ɲumbuɲ-/
SG	1	/ɲiɲ-/	/ɲiɲ-/	/ɲa-/
	2	/kiniɲ-/	/ɲiniɲ-/	/aɲ-/
	3	/kiɲ-/	/aɲ-/	/ka-/
DU	1	/kiriɲ-ɲki/	/ɲiriɲ-ɲki/	/ɲiriɲ-ɲki/
	2	/kiniɲ-ɲki/	/niɲ-ɲki/	/niɲ-ɲki/
	3	/kuɲ-ɲki/	/piɲ-ɲki/	/piriɲ-ɲki/
PL	1	/kiriɲ-/	/ɲiriɲ-/	/ɲiriɲ-/
	2	/kiniɲ-/	/niɲ-/	/niɲ-/
	3	/kuɲ-/	/pi(ri)ɲ-/	/piriɲ-/

Table 7.2: SWING classifier stem TAM distinctions

119. The REALIS IMPERFECTIVE series is named in opposition to the REALIS PERFECTIVE series. While usually it appears on verbs with imperfective or stative readings, it can also be found on verbs with irrealis interpretations (§7.2.1).

	REALIS	IRREALIS
1INCL.DU	<i>/kumbuwer/</i>	<i>/ɲumbuwer/</i>
SG	1 <i>/ɲiwer/</i>	<i>/ɲawer/</i>
	2 <i>/kiniwer/</i>	<i>/ɲiniwer/</i>
	3 <i>/ce/ ~ /kanawer/</i>	<i>/kawer/</i>
DU	1 <i>/kiriŋkiwer/</i>	<i>/ɲiriŋkiwer/</i>
	2 <i>/kiriŋkiwer/</i>	<i>/naŋkiwer/</i>
	3 <i>/kuŋkiwer/ ~ /kuweŋki/</i>	<i>/piriŋkiwer/</i>
PL	1 <i>/kiriwer/</i>	<i>/ɲiriwer/</i>
	2 <i>/kiniwer/</i>	<i>/nawer/</i>
	3 <i>/kuwer/</i>	<i>/piriwer/</i>

Table 7.3: LIE classifier stem TAM distinctions

This perfectivity distinction present in the majority of Marri Ngarr REALIS classifier stems is not found in the classifier stem systems of other Western Daly languages (Green 1989, p. 147; Ford 2010a, pp. 60–70; Ford 1998, pp. 342–356). In Marri Ngarr, the formal contrast between classifier-internal REALIS PERFECTIVE and IRREALIS forms is not consistently observed throughout these series: syncretism is common and often formal distinctions are only found in singular forms (though see §7.1.2 on a potential PERFECTIVE marker on some classifier stem forms), while the REALIS (IMPERFECTIVE) forms contrast with both series in being marked with an initial */k-/*. */g-/~k-/* is also the initial segment of REALIS classifier forms of Marrithiyel and Marri Tjevin (Green 1989, pp. 95–98; Ford 2010a, pp. 60–70) and some REALIS forms in Emmi (Ford 1998, pp. 342–356). Green (1989, p. 103) suggests that the */g-/* in Marrithiyel is a historical REALIS marker which has now fused with the subject marker in REALIS classifier forms.

While classifier stem forms in Marri Ngarr make these formal MOOD (REALIS/IRREALIS) and PERFECTIVITY (IMPERFECTIVE/PERFECTIVE) distinctions, this is not done via a fully regular inflectional system. Instead, the forms of each individual classifier stem contrast for TAM in idiosyncratic ways which suggest that these forms are best treated as portmanteau elements (as opposed to sequences of SUBJECT marker and classifier root) for the purposes of TAM analysis (see related discussion in §5.2). The paradigms for the CAUSE and SAY/DO classifier stems in tables 7.4 and 7.5 below exemplify the main types of formal contrasts found between the TAM series.

	R.IPFV	R.PFV	IRR
1INCL.DU	<i>/kumbudin-/</i>	<i>/ɲumbudi-/</i>	<i>/ɲumbudi-/</i>
SG	1 <i>/ɲidin-/</i>	<i>/ɲadi-/</i>	<i>/ɲudi-/</i>
	2 <i>/kin(d)idin-/</i>	<i>/ɲin(i)didi-/</i>	<i>/adi-/</i>
	3 <i>/kidin/</i>	<i>/adi-/</i>	<i>/kudi-/</i>
DU	1 <i>/kidi-ɲki/</i>	<i>/ɲidi-ɲki/</i>	<i>/ɲidi-ɲki/</i>
	2 <i>/kindidin-ɲki/</i>	<i>/nadi-ɲki/</i>	<i>/nadi-ɲki/</i>
	3 <i>/kudin-ɲki/</i>	<i>/padi-ɲki/</i>	<i>/pudi-ɲki/</i>
PL	1 <i>/kidi-/</i>	<i>/ɲidi-/</i>	<i>/ɲidi-/</i>
	2 <i>/kin(d)idin/</i>	<i>/nadi-/</i>	<i>/nadi-/</i>
	3 <i>/kudin-/</i>	<i>/padi-/</i>	<i>/pudi-/</i>

Table 7.4: CAUSE classifier stem TAM distinctions

	R.IPFV	R.PFV	IRR
1INCL.DU	<i>/kumbum/</i>	<i>/ɲumbumi/</i>	<i>/ɲumbum/</i>
SG	1 <i>/ɲim/</i>	<i>/ɲimi/</i>	<i>/ɲipi/</i>
	2 <i>/kinim/</i>	<i>/ɲinimi/</i>	<i>/ɲinim/</i>
	3 <i>/kamu/ ~ /kimu/</i>	<i>/me/</i>	<i>/kipi/</i>
DU	1 <i>/kirim-ɲki/</i>	<i>/ɲirimi-ɲki/</i>	<i>/ɲirim-ɲki/</i>
	2 <i>/kinim-ɲki/</i>	<i>/nimi-ɲki/</i>	<i>/nim-ɲki/</i>
	3 <i>/kumu-ɲki/</i>	<i>/pVmi-ɲki/</i>	<i>/pirim-ɲki/</i>
PL	1 <i>/kirim/</i>	<i>/ɲirimi/</i>	<i>/ɲirim/</i>
	2 <i>/kinim/</i>	<i>/nimi/</i>	<i>/nim/</i>
	3 <i>/kumi/ ~ /kumu/</i>	<i>/pimi/ ~ /pumi/</i>	<i>/pirim/</i>

Table 7.5: SAY/DO classifier stem TAM distinctions

Both paradigms show the most regular formal distinction described above: REALIS IMPERFECTIVE forms are generally /k/-initial. The CAUSE paradigm also shows that while SG forms are usually formally contrastive across all TAM series, NSG REALIS PERFECTIVE and IRREALIS forms are often syncretic (or contrast only in vowel quality of the subject marker). The SAY/DO paradigm shows that when the NSG REALIS PERFECTIVE and IRREALIS forms do contrast, the difference is usually only slight, often involving a final /i/-vowel on REALIS PERFECTIVE forms which is potentially a marker of perfectivity (§7.1.2), or a distinction between 3NSG IRREALIS forms, which contain a final /ri/ on the subject marker, and 3NSG REALIS PERFECTIVE forms, which don't. The CAUSE paradigm also shows a formal distinction found in only three classifier stems (CAUSE, PIERCE and PUT) where the forms of the classifier root in the REALIS IMPERFECTIVE series (e.g. /din/) usually contrast with those of the REALIS PERFECTIVE and IRREALIS series (e.g. /di/). The SAY/DO paradigm shows a nasal-stop alternation in 1SG and 3SG categories where the classifier root, which has a regular nasal-initial form, becomes obstruent-initial in the 1SG and 3SG IRREALIS forms. This alternation, which is discussed below in §7.1.1, occurs on five classifier stems (SAY/DO, FEET, COOK, TIE and FOLLOW), with a sixth (SWING)

showing a related alternation.

7.1.1 IRREALIS marking on the classifier stem

The 1SG and 3SG IRREALIS forms of five classifier stems, SAY/DO, FEET, COOK, TIE and FOLLOW exhibit a nasal-stop alternation in the consonant of the classifier root. In each of these classifier stems the regular root is nasal-initial, while in the 1SG and 3SG IRREALIS forms of these classifier stems, the root is stop-initial. For example while the regular root form of the COOK classifier stem is /ɲ/-initial as shown in (752a), the root of the 1SG IRREALIS form is /c/-initial (752b).

- (752) a. $\eta\eta\eta\beta\text{ata}$ $\text{wa}\eta\eta\eta\text{ ni}\eta\eta\eta\text{ani je}\eta\eta\text{ ari}$
 $\eta\eta\eta\eta\text{-}\beta\text{at}=\text{a}$ $\text{wa}\eta\eta\eta\text{ ni}\eta\eta\eta\text{ani je}\eta\eta\text{ ari}$
1SG.COOK.R.PFV-rise=PST after morning today DEM.1

'I woke up late this morning.' (PT: IG3-033-A)
- b. $\text{jin } \eta\eta\eta\beta\text{atni}\beta\text{ini}$
 $\text{jin } \eta\eta\eta\text{aci-}\beta\text{at}=\text{ni}$
1SG.PRO 1SG.COOK.IRR-rise=FUT

'I'm going to get up now.' (JN: IG3-009-B)

In three of the classifier stems which exhibit this alternation, SAY/DO, TIE and FOLLOW (all of which contain bilabial nasal-initial roots and are probably all based on the same classifier stem historically (§5.4.6)), this alternation results in voiceless stops in the relevant IRREALIS forms, as in (753b) below.

- (753) a. $\text{mari } \eta\eta\eta\text{imibija}$
 $\text{mari } \eta\eta\eta\text{imi-}\text{mbi}=\text{ja}$
LANG 1SG.SAY/DO.R.PFV-2SG.OBL=PST

'I told you.' (JN: IG3-011-A)
- b. $\text{mari } \eta\eta\eta\text{ipimbini}$
 $\text{mari } \eta\eta\eta\text{ipi-}\text{mbi}=\text{ni}$
LANG 1SG.SAY/DO.IRR-2SG.OBL=FUT

'I want to tell you.' (JN: IG3-006-A)

Table 7.6 illustrates the contrast between regular nasal-initial root forms of these five classifier stems and the irregular stop-initial 1SG and 3SG IRREALIS forms. It also illustrates a different alternation in a sixth classifier stem, SWING, which has the regular root form /ɲ/, and a zero-root form for 1SG and 3SG IRREALIS.¹²⁰

120. A seventh classifier stem, PASS, has stop-initial root forms for 1SG and 3SG IRREALIS but because in other person/number categories its root form is varied or unclear, it does not exhibit the same clear nasal-stop alternation as these other classifier stems. See table A.8 in Appendix A for the forms of the PASS classifier stem.

	Regular	1SG and 3SG IRREALIS
COOK	/ɲi/	/ci/
SAY/DO	/m/	/pi/
TIE	/mu/	/pi/
FOLLOW	/mun̩ki/	/piŋki/
FEET	/n(i)/	/di/
SWING	/ɲ/	/ø/

Table 7.6: Regular and irregular classifier root forms

An explanation for this alternation, and for the fact that for some of these forms the process results in voiceless stops, can be found in examining 1SG and 3SG IRREALIS classifier stem forms in other Western Daly languages. A /bV/ ~ /pV/ segment is found on these feature-matched forms of some classifier stems in Marrithiyel and Marri Tjevin (Green 1989, pp. 81–2; Ford 2010a, pp. 60–70). Green (1989, p. 108) analyses this segment in Marrithiyel as an IRREALIS marker which is descendant from a Proto-Daly 3SG purposive/immediate future marker. For some of these classifier stems in Marrithiyel the /bV/ ~ /pV/ syllable occurs between the subject marker and the classifier root. For other classifier stems exactly the same type of alternation as is found in the Marri Ngarr forms occurs, resulting from a fusion of the /bV/ ~ /pV/ segment with the classifier root (Green 1989, p. 107). The data from Green (1989, p. 107) suggests that the fusion occurs when the root is bilabial-initial, i.e. homorganic with the /bV/ ~ /pV/ syllable, otherwise the /bV/ ~ /pV/ segment remains separate from the classifier root.

ɲu-muji ɲu-buji
 1SG-VISIT.R 1SG-VISIT.IRR (Green 1989: 107)

ɲi-ɲi ɲu-bi-ɲi
 1SG-NJI.R 1SG-IRR-NJI (Green 1989: 107)

The irregular IRREALIS forms in Marri Ngarr have presumably developed from the same source, though the marker is always fused in the Marri Ngarr forms. When it co-occurs with a bilabial-initial (homorganic) classifier root, the root consonant becomes long (voiceless).

ɲu-mu ɲi-pi
 1SG-TIE.R.PFV 1SG-TIE.IRR

ɲa-ni ɲa-di
 1SG-FEET.R.PFV 1SG-FEET.IRR

7.1.2 PERFECTIVITY marking on the classifier stem

While syncretism is common in feature-matched NSG REALIS PERFECTIVE and IRREALIS forms of individual classifier stems, for six classifier stems (GO, SAY/DO, HANDS, PASS, FEET and BUMP) there is a subtle formal difference between the forms of these two series.

Generally, in these classifier stems REALIS PERFECTIVE forms are /i/-final while their IRREALIS counterparts do not contain this final /i/. This formal distinction is illustrated for the FEET classifier stem in table 7.7.¹²¹

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbun-/	/ɲumbuni-/	/ɲumbun-/
SG	1	/ɲin-/	/ɲani-/	/ɲadi-/
	2	/kinin-/	/ɲini-/	/na-/
	3	/kin-/	/na-/	/kadi-/
DU	1	/kinin-ɲki/	/ɲirini-ɲki/	/ɲirin-ɲki/
	2	/kinin-ɲki/	/nani-ɲki/	/nan-ɲki/
	3	/kun-ɲki/	/pani-ɲki/	/pirin-ɲki/
PL	1	/kinin-/	/ɲirini-/	/ɲirin-/
	2	/kinin-/	/nani-/	/nan-/
	3	/kun-/	/pani-/	/pirin-/

Table 7.7: Distinction between NSG REALIS PERFECTIVE and IRREALIS forms of the FEET classifier stem

The examples below demonstrate the contrast between REALIS PERFECTIVE and IRREALIS forms for the SAY/DO classifier stem. While the REALIS PERFECTIVE classifier stem is vowel-final in (754a), no final vowel is present on the IRREALIS form in the same phonological environment (754b). Example (755) shows again that while no final vowel is present on the IRREALIS form, it is present on the REALIS PERFECTIVE form. The PST tense marker is realised as /=a/ following a consonant and /=ja/ following a vowel, showing that the final /i/ forms part of the classifier stem (as opposed to being epenthetic).

- (754) a. **ɲumbuminima**
ɲumbumi=nim=a
1INCL.DU.SAY/DO.R.PFV=AUG=PST
‘We (INCL) all spoke.’ (UNK: 196905-DT-DO1009402)
- b. **ɲumbumnimni** **niciɲani**
ɲumbum=nim=ni **niciɲani**
1INCL.DU.SAY/DO.IRR=AUG=FUT morning
‘We (INCL) are all going to speak.’ (UNK: 196905-DT-DO1009402)

121. Restrictions against voiced obstruent codas (§2.2.1) force 1SG and 3SG IRREALIS forms to be vowel-final.

- (755) a. **nimni** **nicijani**
nim=ni **nicijani**
2NSG.SAY/DO.IRR=FUT morning
‘You’re all going to speak tomorrow.’ (UNK: 196905-DT-DO1009402)
- b. **nimija**
nimi=ja
2NSG.SAY/DO.R.PFV=PST
‘You all spoke.’ (UNK: 196905-DT-DO1009402)

The final /i/ on these classifier stems can be difficult to identify because /i/ is also frequently used epenthetically between the classifier stem and the slot 2 markers or lexical stem (§2.3.1); therefore being realised in the same position as the (potential) marker of perfectivity. The phonological environment in which the REALIS PERFECTIVE/IRREALIS contrast can best be observed is when a classifier stem precedes an obstruent-initial lexical stem. The examples below demonstrate the contrast for the HANDS (756), BUMP (757) and PASS (758) classifier stems.¹²²

- (756) a. **naripita**
nari-pit=a
2NSG.HANDS.R.PFV-wash=PST
‘You three fellas washed.’ (UNK: 196905-DT-D01009402)
- b. **narpitni** **nicijani**
nar-pit=ni **nicijani**
2NSG.HANDS.IRR-wash=FUT tomorrow
‘You’re all going to wash tomorrow.’ (UNK: 196905-DT-D01009402)

122. Note that while the contrast seems fairly consistent between feature-matched forms in clearly observable environments, there are some exceptions. In (i), no formal distinction between the 1NSG REALIS PERFECTIVE and IRREALIS forms of the BUMP classifier stem is realised.

- (i) a. **ɲilikata**
ɲili-kat=a
1NSG.BUMP.R.PFV-cut=PST
‘We all cut (the wood)’ (UNK: 196905-DT-DO1009402)
- b. **ɲilikatni**
ɲili-kat=ni
1NSG.BUMP.IRR-cut=FUT
‘We are going to cut (the wood).’ (UNK: 196905-DT-DO1009402)

- (757) a. η ulukata zadi
 η uli-kat=a zadi
 1SG.BUMP.R.PFV-cut=PST back
 ‘I hit him on the back.’ (HK: 1972-MW-M02004364B)
- b. jin η ulkatni
 jin η ul-kat=ni
 1SG.PRO 1SG.BUMP.IRR-cut=FUT
 ‘I’m going to cut it down.’ (JN: IG3-009-B)
- (758) a. cer naja η inmeli β arata
 cer naja η inmeli- β arat=a
 1PL.PRO before 1PL.PASS.R.PFV-pass=PST
 ‘We all went past before.’ (JoN: IG3-024-A2)
- b. cer gu η inmel β aratni
 cer ku η inmel- β arat=ni
 1PL.PRO 2DEM 1PL.PASS.IRR-pass=FUT
 ‘We’re all gonna go past.’ (PT: IG3-024-A2)

While the remaining classifier stems don’t exhibit this formal distinction between REALIS PERFECTIVE and IRREALIS forms, for the majority of these classifier stems the distinction may be obscured. For example, restrictions against voiced obstruent codas (§2.2.1.1) mean that the classifier root obstruent in HEAT and CAUSE forms of both the REALIS PERFECTIVE and IRREALIS series must always be followed by a vowel (i.e. /dV/ and /di/). Similarly, restrictions on permissible types of coda clusters (only liquids followed by peripheral consonants are allowed (§2.2.1)) mean that HANG and FOLLOW classifier roots across TAM series must be CV-final (i.e. /*p.ci*/ and /*mu η .ki*/ as opposed to /*pc*/ and /*mu η k*/). Other classifier roots (TIE, COOK, and STAND CMLX), are vowel-final across all TAM series, meaning that any distinction in REALIS PERFECTIVE and IRREALIS marked by a vowel would be obscured, while those classifier stem forms which have zero-marked roots (MOUTH and PUT)¹²³ are comprised only of subject marking forms, which are already vowel-final. For other classifier stems (SIT, LIE, STAND and TRAVEL) no perfectivity distinction exists, with these classifier stems simply contrasting REALIS with IRREALIS.¹²⁴ This data suggests that REALIS PERFECTIVE forms of some classifier stems can be distinguished from equivalent IRREALIS forms by a final high front vowel which marks these classifier stems as PERFECTIVE. That it is only found on six classifier stems shows either that it is only partially productive, or that it may be a historical marker which has now fused with the classifier stem.

123. PUT has a phonological form for its R.IPFV series, but is zero-marked forms for both R.PFV and IRR.
 124. Excluding all these environments in which a vowel distinction would be obscured, PIERCE and SWING are the only classifier stems which don’t exhibit a distinction in form between REALIS PERFECTIVE and IRREALIS forms based on a final high front vowel. Note that if SWING.R.PFV forms contained the final /i/, many of these forms would be homophonous with COOK.R.PFV forms.

- (761) a. **jin** **ɲiniɲjukɲina**
 jin **ɲin-ɲ-cuk=ɲin=a**
 1SG.PRO 1SG.FEET.R.IPFV-3SG.F.OBL-look.for=1SG.GO.R.IPFV=PST
 ‘I was looking for her.’ (PT: IG3-039-A)
- b. **ɲatirɲukɲuni**
ɲadi-dir-cuk=ɲun=ni
 1SG.FEET.IRR-2PL.OBL-look.for=1SG.GO.IRR=FUT
 ‘I’ll look for you all.’ (JoN: IG3-026-B)

When the subject is semantically dual in verbs containing a serial classifier, a DUAL SUBJECT marker attaches to the serial classifier. Example (762), in which the DUAL SUBJECT marker takes the INTRANSITIVE /-ɲ/ form, shows that the DUAL SUBJECT marker agrees in transitivity value with the serial classifier rather than with the main classifier stem in slot 1, as the main classifier stem is almost always TRANSITIVE in serial constructions. As the DUAL SUBJECT marker is analysed as filling a separate verb slot when it co-occurs with the main classifier stem (§6.1.1) this shows that another subject number slot follows the serial classifier stem, as illustrated in the verbal template in table 7.1.

- (762) **niwiɲ** **muli** **cicuk** **ji** **mazi**
 niwiɲ muli cicuk ji mazi
 3DU.PRO FEM two DEM.3 belly
kumuniɲatkawiɲ
kumun-ni-ɲ-at=kawu-ɲ
 3NSG.PIERCE.R.IPFV-(U)AUG.S>1SG.O-1SG.O-pick.up=3.SIT.R.IPFV-DU.S.INTR
 ‘Those two women like me.’ (PT: IG3-022-A)

Serial classifiers are found mostly in REALIS IMPERFECTIVE verbs, and contribute IMPERFECTIVE aspect. The serial classifier is necessary to convey this imperfective meaning: a construction using only a REALIS IMPERFECTIVE main classifier stem cannot by itself convey this aspectual meaning. On the other hand, the SIT, STAND, LIE, GO and TRAVEL main classifier stems generally do not co-occur with serial classifiers.¹²⁶ Verbs containing SIT, STAND, LIE, GO and TRAVEL main classifier stems can convey the imperfective meaning equivalent to that of the REALIS IMPERFECTIVE main classifier stem and serial

126. A couple of examples in the corpus show that it is possible for a serial classifier to co-occur with one of these main classifier stems, even the same classifier stem (i), but this appears to be strongly dispreferred.

- (i) **kwanitɛkani** **majiperi** **pundinaɲ**
kwani-zaɽ~zaɽ=kani **ma=jipezi** **pundi naɲ**
 3SG.GO.R.IPFV-REDUP~urinate=3SG.GO.R.IPFV MASC=little REFL
 ‘The baby wet himself.’ (PT: IG3-023-B)

The HANG classifier stem is exceptional in that it regularly co-occurs with the GO serial classifier when it conveys a ‘fighting’ meaning as a simple verb (§5.4.1). HANG is also exceptional as a serial classifier in that it is a TRANSITIVE classifier stem based on DUAL SUBJECT marking characteristics (§5.3.3.1), and only occurs as a serial classifier in one example in the corpus.

classifier combination, but do so in the absence of the serial classifier. SIT, STAND, LIE and GO are also the same classifier stems which most commonly function as serial classifiers. In the example pair in (763), both constructions were offered by a Marri Ngarr speaker as translations for English imperfective construction prompts. The same aspectual meaning is translated with either the combination of the REALIS IMPERFECTIVE form of the BUMP classifier stem and the SIT serial classifier in (763a), or alternatively by the SIT main classifier stem in (763b), where no serial classifier is present.

- (763) a. jeŋi karila ŋileŋekaŋija
 jeŋi karila ŋil-zaŋ~zaŋ=kaŋi=ja
 WEAP rock 1SG.BUMP.R.IPFV-REDUP~hit.PL=1SG.SIT.R.IPFV=PST
 ‘I was beating him up with a rock.’ (PT: IG3-032-A)
- b. jin kaŋimbiŋaŋa
 jin kaŋi-mbir-zaŋ~zaŋ=a
 1SG.PRO 1SG.SIT.R-3PL.O-REDUP~hit.PL=PST
 ‘I was beating them up.’ (PT: IG3-037-A)

As noted in §5.4.1, the SIT, STAND, LIE and HANG classifier stems are inherently atelic and examples like (763b) above show that this property can be used in main classifier stem function to express imperfectivity of the event denoted by the larger verb. A similar pattern where serial classifiers do not co-occur with INTRANSITIVE main classifier stems is found in other Western, and Southern Daly languages and these classifier stems are also described as inherently atelic (Green 1989, pp. 174–179, 183–184; Reid 2011, p. 177; Reid 2002, pp. 243, 255; Nordlinger and Caudal 2012, pp. 84–85).¹²⁷ Though the serial classifier is necessarily present in conjunction with the REALIS IMPERFECTIVE form of classifier stems when expressing imperfectivity, the REALIS (IMPERFECTIVE) form of classifier stems can occur in the absence of a serial classifier when it is used for other types of expressions such as statives, habituais, generics and story narration (§7.2.1).

While the primary function of the serial classifier appears to be to encode imperfectivity of an event, there is also evidence that it can also encode stance or motion information about the subject. The examples in (764) show a contrast in the choice of serial classifier which reflects the contrast in the stance of the subject whilst performing the event. Another example (765) shows that a static event of ‘watching’ selects the SIT classifier stem as serial classifier, while the dynamic event of ‘spearing’ selects the GO classifier stem as serial, reflecting the difference in usage of these two classifier stems (i.e. stance vs motion) (§5.4.1).

- (764) a. ŋiriŋincetkaŋi pundi jin
 ŋiri-ŋin-cet=kaŋi pundi jin
 1SG.HANDS.R.IPFV-1SG.OBL-scratch=1SG.SIT.R.IPFV hand 1SG.PRO
 ‘I’m scratching myself (while sitting).’ (PT: IG3-035-B)

127. This pattern of co-occurrence is more relaxed in Murrinhpatha, where serial classifiers can sometimes be found co-occurring with these atelic classifier stems (Nordlinger and Caudal 2012, p. 86).

- b. *naŋ ma ji karicetkwaŋ*
naŋ ma= ji kar-ni-cet=kwaŋ
 3SG.M.PRO MASC- DEM.3 3SG.HANDS.R.IPFV-3SG.OBL-scratch=3SG.STAND.R.IPFV
 ‘He’s scratching himself (while standing).’ (JoN: IG3-025-A)

- (765) *ŋidinwidimelkaŋi niwijn mijŋi awu*
ŋidin-widi-mel=kaŋi niwijn ma=ŋiŋci awu
 1SG.CAUSE.R.IPFV-3DU.O-stare-1SG.SIT.R.IPFV 3DU.PRO MASC=one ANIM
kuriŋgidapkunij aŋaŋmiŋ
kuri-ŋki-zaŋ-kun-ŋ a=ŋaŋmiŋ
 3NSG.HANDS.R.IPFV-DU.S-spear-3NSG.GO.R.IPFV-DU.S.INTR ANIM=fish
 ‘I’m watching two men spearing fish.’ (HK: 1972-MW-M02004365A)

The HANG classifier stem occurs as a serial classifier only once in the corpus (766). That it would occur so rarely as a serial makes sense if we consider the stance characteristics of HANG; there are substantially fewer events in the corpus where the subject can be conceived of as ‘hanging’, than there are of subjects e.g. ‘sitting’. This difference in productivity is also seen between HANG and SIT in their main classifier stem function.

- (766) *kipiŋaŋ kudiŋtumkuŋji na ceŋji*
kipiŋaŋ kudi-ŋtum=kunŋci na ceŋci
 ? 3SG.CAUSE.IRR-dry=3SG.HANG.R.IPFV LOC fire
 ‘Let (the clothes) dry out by the fire’ (PT: IG3-032-B)

The TRAVEL classifier stem also occurs as a serial classifier only once in the corpus (767), suggesting that GO is the default choice for serial classifiers used in dynamic events.

- (767) *awuni kiŋjukkuper*
awu=ni kin-cuk=kuper
 ANIM=DAT 3SG.FEET.R.IPFV-look.for=3SG.TRAVEL.R.IPFV
 ‘He’s going around looking for meat.’ (JN: 20090226-MC-WaterRat)

7.2 TAM semantics

This section examines the TAM interpretations rendered by the various combinations of TAM features marked on the verb. These TAM features include MOOD distinctions

(REALIS/IRREALIS) on all classifier stems and ASPECT distinctions (PERFECTIVE/ IMPERFECTIVE) in the REALIS category of most classifier stems; IMPERFECTIVE marking by the serial verb; TENSE distinctions between PAST and FUTURE and an APPREHENSIVE MODAL marker. These features are combined in various ways to render different TAM meanings of events. Lexical stem reduplication can also be used to convey iterativity or durative aspect - see §5.5.1 for details. This ‘composite’ type of TAM marking system is common across non-Pama-Nyungan languages (Verstraete 2005). Note that MOOD is used here to refer to the REALIS/IRREALIS distinction (also known as REALITY STATUS) and not used in the sense of larger sentential categories e.g. interrogative, imperative etc. MOOD also contrasts with MODALITY, which is concerned with notions such as obligation/permission (DEONTIC) and necessity/possibility (EPISTEMIC).

Prior to a discussion of the combinations of TAM features and their overall TAM interpretations, I firstly provide a brief overview of the TENSE markers and MODAL marker found on the verb. Two tense enclitics and one modal enclitic can occur in the final slot of the verb. The tense enclitics are the FUT marker /=*ni*/ (768a) and the PST tense marker /=*a*/~/=*ja*/ which is realised as a single vowel segment when preceded by a consonant (768b), and as a glide-initial CV syllable when preceded by a vowel (768c).¹²⁸ There is no present TENSE marker, though present tense events generally require an INTRANSITIVE main classifier stem (768d) or serial classifier (768e). The MODAL enclitic /=*andi*/ marks verbs as APPREHENSIVE and combines with REALIS (IMPERFECTIVE) forms of classifier stems. This marker encodes the fact that the speaker considers a possible future event as undesirable.

- (768) a. *naŋ wacki kulinjmodini*
naŋ wacki kul-ŋ-mudi=ni
 3SG.M.PRO later 3SG.BUMP.IRR-1SG.O-see=FUT
 ‘He’s gonna visit me later.’ (JN: IG3-012-A)
- b. *ŋumbulimudinima*
ŋumbuli-mudi=nim=a
 1INCL.DU.BUMP.R.PFV-see=AUG=PST
 ‘We (INCL) all looked.’ (UNK: 196905-DT-DO1009402)
- c. *ŋumbulimudija*
ŋumbuli-mudi=ja
 1INCL.DU.BUMP.R.PFV-see=PST
 ‘You and me looked.’ (UNK: 196905-DT-DO1009402)
- d. *niwiŋ ji kawuniŋbicmi*
niwiŋ ji kawu-ni-ŋ-bicmi
 3DU.PRO DEM.3 3.SIT.R-(U)AUG.S>MIN.O-1SG.O-watch
 ‘Those two fellas are watching me.’ (JN: IG3-014-A)

128. This is not an example of glide insertion (§2.3.4) as the glide in the PAST tense marker is consistently palatal, rather than varying between palatal and labial depending on the preceding segment as is the case for the process of glide insertion.

- e. **kuliŋmudikuzi**
 kul-ŋ-mudi=**kuzi**
 3SG.BUMP.R.IPFV-1SG.O-see=3SG.SIT.R.IPFV
 ‘That fella’s looking at me.’ (JN: IG3-014-A)
- f. **niwijn ji kulniŋmudandi**
 niwijn ji kul-ni-ŋ-mudi=**andi**
 3DU.PRO DEM.3 3NSG.BUMP.R.IPFV-(U)AUG.S>MIN.O-1SG.O-see=**APPR**
 ‘Those two might see me.’ (JN: IG3-013-B)

Note that these three TAM enclitics do not exclusively attach to verbs; they are also observed attaching to nominals (769) and adverbs (770), where they appear to convey the same meanings (also see examples in §3.1.7).

- (769) **aŋalpundi giniwuɟarandi**
 a=ŋalpu=**andi** kini-wudar=**andi**
 ANIM=many=**APPR** 2SG.MOUTH.R.IPFV-finish=**APPR**
 ‘You might eat a lot of meat.’ (JN: IG3-014-A: 74)

- (770) **wackini ŋadimbijukni**
wacki=ni ŋadi-mbi-cuk=**ni**
later=FUT 1SG.FEET.IRR-2SG.OBL-look.for=**FUT**
 ‘I’m gonna look for you later.’ (PT: IG3-039-A)

Table 7.8 below illustrates the possible combinations of TAM markers in Marri Ngarr. These combinations are discussed in detail in §7.2.1 - §7.2.2.

Classifier stem (MOOD and PERFECTIVITY)	TENSE/ MODAL marker	SERIAL (IMPERFECTIVE)	TAM interpretation
R.IPFV	∅	yes	present imperfective
	=PST	yes	past imperfective
	=APPR	no	(future) apprehensive
R.PFV	=PST	no	past perfective
IRR	∅		imperative, hortative
	=FUT	no	future possibility, desiderative
	=PST	no	counterfactual

Table 7.8: TAM marking combinations

A REALIS/IRREALIS MOOD distinction is common for non-Pama-Nyungan Australian languages (Verstraete 2005). This category distinction is also used in descriptions of a large number of languages cross-linguistically and the grammatical distinction between REALIS and IRREALIS is thought to map to a semantic distinction between actualised events (i.e. real world events which have occurred in the past or are occurring in the present) and non-actualised events (events that exist only in the imagination, either past imagined, or future imagined) (e.g. Mithun 1995, p. 386; Elliot 2000, p. 56). While the categories of REALIS and IRREALIS are widely accepted in the literature (e.g. Mithun (1995), Elliot (2000), Verstraete (2005), and von Prince, Krajinovic, and Krifka (2022)) the validity of these categories is not without controversy. Bybee, Perkins, and Pagliuca (1994) and Bybee (1998, p. 267) argue that the IRREALIS category is not homogenous, and covers too broad a domain of meaning to be considered a useful category. They find that in many languages a grammatical distinction between REALIS/IRREALIS does not map neatly to a semantic actualised/non-actualised distinction (e.g. sometimes non-actualised events are represented by a REALIS grammatical category) and that the types of events marked REALIS/IRREALIS differ from language to language. They also find that there is often more than one type of marker to express various meanings considered non-actualised, suggesting the grammatical marking of meanings narrower than a non-actualised category (Bybee, Perkins, and Pagliuca 1994, pp. 238–239; Bybee 1998, pp. 265–267). See von Prince, Krajinovic, and Krifka (2022) for an overview of the debate surrounding the category IRREALIS. Whilst describing the TAM marking system of Marri Ngarr in §7.2.1 - §7.2.3, I explore this issue of whether the categories labelled REALIS and IRREALIS are representative of a semantic contrast between actualised and non-actualised events. I find that Marri Ngarr generally exhibits a neat mapping between these semantic and morphological categories where verbs marked REALIS denote actualised events (with one exceptional construction), while IRREALIS-marked verbs denote non-actualised events.

7.2.1 REALIS

As described in §7.1 classifier stems in Marri Ngarr have a distinction between REALIS and IRREALIS. Within the REALIS category, all TRANSITIVE classifier stems also have a perfectivity distinction so that there is a contrast between a REALIS PERFECTIVE and a REALIS IMPERFECTIVE series. Some INTRANSITIVE classifier stems (SIT, STAND, LIE and TRAVEL) have just a single REALIS series which can be used in constructions expressing both perfective and imperfective events, while the INTRANSITIVE PASS classifier stem patterns with TRANSITIVE classifier stems in having the perfectivity distinction. GO only contrasts REALIS/IRREALIS as a simple verb, but when it occurs in bipartite verbs it also exhibits the perfectivity distinction.

In indicative expressions, in the absence of any other TAM marking on the verb, the REALIS classifier stem (found only in those classifier stems which don't have a perfectivity distinction) can express present tense events (amongst other functions, discussed below) as in (771a) and (772a). When the REALIS classifier stem combines with the PST tense marker, this forms a past tense event (771b); a TAM combination which is offered by speakers as translations for either perfective (772b) or imperfective (772c) English prompts.

- (771) a. η ijer β i η i
 η ijer β i η i
 1SG.TRAVEL.R now
 ‘I’m going now.’ (ET: 20150627-JM-ET-01)
- b. η ijera cindi
 η ijer=a cindi
 1SG.TRAVEL.R=PST Thindi
 ‘I went to Thindi.’ (RK: 1972-MW-M02004364B)
- (772) a. ka η i ar kari η
 kadi ar kari- η
 1DU.PRO DEM.1 1NSG.SIT.R-DU.S.INTR
 ‘Us two (EXCL) are sitting here.’ (HK: 197207-MW-M02004363A)
- b. kari η a
 kari- η =a
 1NSG.SIT.R-DU.S.INTR=PST
 ‘We two sat down.’ (UNK: 196905-DT-DO1009402)
- c. ka η i ga ar kari η a
 kadi =ka ar kari- η =a
 1DU.PRO =TOP DEM.1 1NSG.SIT.R-DU.S.INTR=PST
 ‘We two were sitting here.’ (JoN: IG3-019-B)

On the other hand, TRANSITIVE classifier stems have a perfectivity distinction in the REALIS so that there is an opposition between REALIS PERFECTIVE and REALIS IMPERFECTIVE. For these classifier stems, the REALIS PERFECTIVE series is used in only one type of construction: it combines with the PAST tense marker to render a past perfective interpretation, as in (773a). The REALIS IMPERFECTIVE series on the other hand combines with various TAM markers and is involved in the expression of a broad range of meanings. It can occur on verbs with present imperfective interpretations where it consistently combines with a serial classifier (773b), or in past imperfective constructions where it combines with both the PAST tense marker and a serial classifier (773c).

- (773) a. ϕ ali η mudija
 β ali- η -mudi=ja
 3SG.BUMP.R.PFV-1SG.O-see=PST
 ‘He looked at me.’ (JN: IG3-006-B)

- b. niwir ji kupingurpandi jin ni
 niwir ji kup-ŋ-kurp=andi jin ni
 3PL.PRO DEM.3 3NSG.SWING.R.IPFV-1SG.O-hit=APPR 1SG.PRO PREP

manji
 ma=ŋinci
 MASC=one

‘They might beat me up, I’m on my own.’ (JN: IG3-013-A)

- c. awu jiliki wunmuk kanipaliŋandi
 awu jilirki wunmuk kani-pali-ŋa=andi
 ANIM meat rotten 3SG.GO.R-2SG.ADJ-MAL=APPR

‘It might go rotten on you.’ (PT: IG3-036-B)

According to Bybee, Perkins, and Pagliuca (1994) and Bybee (1998, p. 267), this type of construction provides evidence against the cross-linguistic validity of the REALIS/IRREALIS distinction: Marri Ngarr, like many languages, exhibits constructions where there is a mismatch between grammatical MOOD marking and the semantics of actualisation. On the other hand, Elliot (2000, p. 71) acknowledges these mismatches found in many languages, but cautions against a Euro-centric understanding of actualisation. For some Australian languages such as Mawng, Emmi, Wardaman and the Nyulnyulan languages, future events can be marked with REALIS if they are certain to occur (Elliot 2000, pp. 68–71), i.e. these constructions are considered actualised even though they haven’t occurred yet. While this does not explain REALIS marking on the apprehensive construction in Marri Ngarr, perhaps there is something else about the semantics of apprehensives to make them more likely to attract REALIS marking, e.g. as apprehensive constructions function as warnings, perhaps REALIS marking adds to the immediacy of the event, hence reinforcing the warning. This grammatical combination of REALIS marking and APPREHENSIVE marking is also noted by Verstraete (2005, p. 228) as occasionally being used in other non-Pama-Nyungan languages.

7.2.2 IRREALIS

IRREALIS classifier stem forms occur in a variety of constructions in the corpus including future potentials, imperatives, hortatives, desideratives and counterfactuals. These constructions are all semantically linked in that they mark non-actualised events.

IRREALIS occurs in future potential constructions, where it appears in conjunction with the FUTURE tense marker (779).

- (779) a. jin ceŋji ari ŋudimitakni
 jin cenci ari ŋudi-mitak=ni
 1SG.PRO fire DEM.1 1SG.CAUSE.IRR-extinguish=FUT

‘I’m going to blow that fire out.’ (JoN: IG3-019-A)

- b. cer ηidiwicini
cer ηidi-wici=ni
1PL.PRO 1NSG.CAUSE.IRR-roll=FUT
‘We’re all going to roll it up.’ (UNK: 196905-DT-DO1009402)
- c. niη ηijerniwuri φaliηmuđini
niη ηijer=ni=wuri pal-η-mudi=ni
2SG.PRO 2SG.TRAVEL.IRR=FUT=TOWARDS 2SG.BUMP.IRR-1SG.O-see=FUT
‘You’re going to come and see me.’ (JN: IG3-006-B)

The same combination of IRREALIS classifier stem and FUTURE tense marker is also used in desiderative expressions (780).¹²⁹

- (780) a. cibeka wuri amuηinet naβini
ciβaki =wuri am-ηin-at ηa-βi=ni
tobacco =towards 2SG.PIERCE.IRR-1SG.OBL-pick.up 1SG.MOUTH.IRR-smoke=FUT
‘Bring me some tobacco, I want to smoke.’ (JN: IG3-013-B)
- b. niwir pudiβupni
niwir pudi-βup=ni
3PL.PRO 3NSG.CAUSE.IRR-burn=FUT
‘They want to burn it.’ (JN: IG3-006-B)
- c. wajki ηuldidimudini
wacki ηul-didi-mudi=ni
later 1SG.BUMP.IRR-2DU.O-see=FUT
‘I want to see you two later.’ (JN: IG3-009-A)

IRREALIS classifier stem forms used in the absence of TENSE-marking are commonly used to construct imperatives (781) and more rarely used for hortative constructions (782).

129. The combination of the IRREALIS form of the classifier stem plus FUTURE tense marker can also be found in constructions expressing a type of epistemic possibility; however these expressions also rely on the inclusion of the particle /merij/ (i) (§9.5.2).

- (i) wajki merij traηanβapni
wacki merij za-ηin-βap=ni
later MIGHT 2SG.MOUTH.IRR-1SG.OBL-transfer=FUT
‘Later you might give it to me.’ (JN: IG3-009-B)

- (783) a. *niŋ ga jeŋjen jaɽarija mu lijik*
niŋ =ka jeŋjen ja-ɽari=ja mu lijik
 2SG.PRO =TOP before 2SG.MOUTH.IRR-go=PST BUT no
 ‘You should have gone before, but you didn’t.’ (JoN: IG3-019-B)
- b. *mari ŋipiwira*
mari ŋipi-wir=a
 LANG 1SG.SAY/DO.IRR-3PL.OBL=PST
 ‘I should have told that mob.’ (JN: IG3-007-A)
- c. *jin nina jin ŋadabaɽa lijik*
jin nina jin ŋadi-βac=a lijik
 1SG.PRO OBLIG 1SG.PRO 1SG.FEET.IRR-kick=PST no
 ‘I should have kicked him before, but I didn’t.’ (JN: IG3-010-B)

Whilst the IRREALIS series is used in an array of constructions expressing various types of meanings, these meanings all fall under the umbrella category of non-actualisation. This data, therefore, shows that IRREALIS-marked verbs map to the semantic notion of non-actualisation in Marri Ngarr, which adds support to the validity of the category IRREALIS in languages. For Bybee (1998, p. 267) an argument against the validity of IRREALIS is that ‘non-actualisation’ is too broad a category to be useful, while von Prince, Krajinovic, and Krifka (2022, p. 227) counter that ‘highly abstract notions’ can be core to other commonly recognised grammatical categories, such as ‘identifiability by the speaker’, which is core to the grammatical category of definiteness.

7.2.3 MOOD marking on negative and interrogative constructions

In keeping with the relative consistency observed in §7.2.1 and §7.2.2 for marking actualised events with REALIS forms of classifier stems and non-actualised events with IRREALIS, we might expect to observe other types of non-actualised events such as negated constructions and interrogatives being expressed via verbs marked IRREALIS. Instead, we find variation in the MOOD marking of these types of constructions. This variation can, however, be explained if we consider the scope of negative and interrogative markers in relation to MOOD.

While future negated constructions employ IRREALIS classifier stems (784), past/ present negated constructions contain REALIS forms (785). These examples at first seem to suggest that marking of REALIS/IRREALIS is based on TENSE-marking characteristics in these constructions, rather than being aligned with the semantics of actualisation/non-actualisation.

- (784) *ambu mazi ŋumatni*
ambu mazi ŋum-at=ni
 NEG belly 1SG.PIERCE.IRR-pick.up=FUT
 ‘I’m not going to like it.’ (JN: IG3-009-B)

(785) *naɟi gu ambu niŋŋinguwata*
nadi ku ambu niŋci-ŋki-wat=a
 2DU.PRO DEM.2 NEG 2NSG.HANG.R.PFV-DU.S-hang=PST

‘You two didn’t hang it up.’ (JN: IG3-011-A)

Likewise, in interrogative constructions the MOOD of the classifier stem seems to vary based on TENSE-marking (786) - (787) rather than actualisation.

(786) *niŋ ga cuja ɸindiza ginina*
niŋ =ka cuja ɸindi=za kinin=a
 2SG.PRO =TOP yesterday WHERE=AWAY 2SG.GO.R=PST

‘Where did you go yesterday?’ (JoN: IG3-019-B)

(787) *ɸindi ŋinimni*
ɸindi ŋinim=ni
 WHERE 2SG.SAY/DO.IRR=FUT

‘What are you going to do?’ (PT: IG3-033-A)

In addition, prohibitive constructions, which also involve the negator /*ambu*/, vary in their choice of classifier stem MOOD, with the verb in (788) being marked with IRREALIS while the verb in (789) takes REALIS (IMPERFECTIVE).

(788) *ambu arimbicet* *niŋ*
ambu ar-mbi-cet *niŋ*
 NEG 2SG.HANDS.IRR-2SG.OBL-scratch 2SG.PRO

‘Don’t scratch yourself!’ (JoN: IG3-025-A)

(789) *niŋ ambu kinijimbiθaŋɸaliandi*
niŋ ambu kinij-mbi-taŋɸali=andi
 2SG.PRO NEG 2SG.SWING.R.IPFV-2SG.OBL-forget=APPR

‘Don’t you forget!’ (PT: IG3-038-A)

While this MOOD-marking pattern at first seems to contradict the idea that IRREALIS marks non-actualised events such as negative, interrogative and prohibitive expressions, the choices of MOOD marker in these constructions make sense if we view negation markers and interrogatives as having scope over MOOD markers. For example, when a basic indicative expression is constructed the choice of MOOD is based on actualisation/non-actualisation (e.g. a past or present actualised event employs REALIS (790a) while a future

potential event uses IRREALIS (791a)). These basic constructions are then negated (790b) and (791b). Logically, (790b) can be interpreted as ‘it is not the case (that) he gave them the fruit.’

- (790) a. **naŋ ji awu tʃaŋaŋβapa**
 naŋ ji awu ʒa-ŋin-βap=a
 3SG.M.PRO DEM.3 ANIM 3SG.MOUTH.R.PFV-1SG.OBL-transfer=PST
 ‘He gave me that meat.’ (JN: IG3-011-A)
- b. **miji wu niwir ga ambu tʰawirβapa**
 miji =wu niwir =ka ambu ʒa-wir-βap=a
 PLANT =WU 3PL.PRO =TOP NEG 3SG.MOUTH.R.PFV-3PL.OBL-transfer=PST
 ‘He (sugarglider) didn’t give them the fruit.’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

- (791) a. **nicijana ŋajawurni**
 nicijani ŋaja-wur=ni
 tomorrow 1SG.STAND.CMPLX.IRR-return=FUT
 ‘I’m going to come back tomorrow.’ (UNK: 196905-DT-DO1009402)
- b. **ambu ŋajawurni**
 ambu ŋaja-wur=ni
 NEG 1SG.STAND.CMPLX.IRR-return=FUT
 ‘I’m not gonna come back.’ (JN: IG3-008-B)

This same scope ordering can explain the choice of MOOD marking in interrogative constructions (792) - (793). In (792a) we see a basic indicative construction expressing an actualised event which is marked REALIS, and the equivalent interrogative construction in (792b) receives the same MOOD marker. Likewise a future indicative construction is marked with IRREALIS in (793a) and the equivalent interrogative construction in (793b) receives the same IRREALIS-marking.

- (792) a. **kaniwuri**
 kani=wuri
 3SG.GO.R=TOWARDS
 ‘He’s coming.’ (PT: IG3-023-B)
- b. **naŋ ji ga ϕindiza kani**
 naŋ ji =ka βindi=za kani
 3SG.M.PRO DEM.3 =TOP WHERE=AWAY 3SG.GO.R
 ‘Where’s he going?’ (JoN: IG3-019-B)

- (793) a. *naŋ kajiβatni*
naŋ kaci-βat=ni
 3SG.M.PRO 3SG.COOK.IRR-rise=FUT
 ‘He’s going to get up.’ (JN: IG3-007-B)
- b. *naŋ ji kumunbe φajiβatni*
naŋ ji kumunbe kaci-βat=ni
 3SG.M.PRO DEM.3 WHEN 3SG.COOK.IRR-rise=FUT
 ‘When is he going to get up?’ (JN: IG3-007-B)

The variation in MOOD marking on prohibitive constructions occurs simply because there are two types of verbs from which prohibitives are derived: the first is an imperative, formed with IRREALIS (794a) (§7.2.2), to which the negator is introduced (794b) while the second is the apprehensive construction formed with the REALIS (IMPERFECTIVE) series and the APPREHENSIVE marker (795a) (§7.2.1), to which the negator is applied (795b). Note that while the reason for REALIS (IMPERFECTIVE) marking on this second type of prohibitive construction is unclear (§7.2.1), this construction is a negated version of the apprehensive construction and here the negator simply scopes over the MOOD-marking used in the apprehensive construction. This APPREHENSIVE-marked prohibitive presumably also differs in function from the imperative-derived prohibitive in that it carries a negative implication which is absent from the imperative-derived construction.

- (794) a. *ŋapibiɿ aguwu*
ŋa-biɿ~biɿ a=ku=wu
 2SG.COOK.IRR-REDUP~COOK ANIM=DEM.2=WU
 ‘Cook that meat.’ (PT: IG3-016-B)
- b. *awu ambu ŋajuk*
awu ambu ŋa-juk
 ANIM NEG 2SG.COOK.IRR-burn
 ‘Don’t burn that meat.’ (JN: IG3-006-B)
- (795) a. *niŋ kiperparatandi*
niŋ kiper-βarat=andi
 2SG.PRO 2SG.PASS.R.IPFV-pass=APPR
 ‘You might go right past.’ (PT: IG3-033-B)
- b. *aŋar ŋandini ambu giniparupandi*
aŋar ŋandi=ni ambu kinipi-βarup=andi
 PROX 2SG.SIT.IRR=FUT NEG 2SG.COOK.R.IPFV-run=APPR
 ‘Stay here, don’t run away.’ (PT: IG3-025-B)

Mithun (1995, pp. 380–382) proposes this type of scope analysis for Central Pomo (Pomoan), which has the same pattern of REALIS/IRREALIS marking as Marri Ngarr when it interacts with negation and interrogatives. She argues that in other languages in which negative and interrogative expressions are always formed with IRREALIS markers such as Caddo (Caddoan), the scope ordering is reversed, i.e. MOOD scopes over the negator/interrogative element; therefore negative/interrogative expressions are marked IRREALIS. This scope ordering is also observed in Australian languages such as Murrinhpatha (Nordlinger In Press) and Nyulnyulan languages (Elliot 2000, p. 79).

7.2.4 Summary

The preceding data has shown that TAM features can be marked on various elements in the verb such as the classifier stem, serial classifier and dedicated TENSE and MODAL markers. Most TAM interpretations are formed through the combination of two or more of these markers, thus Marri Ngarr exhibits a ‘composite’ TAM marking system common in non-Pama-Nyungan languages (Verstraete 2005). Classifier stem data shows that the formal distinctions between TAM series vary for each individual classifier stem and various strategies are used to mark these distinctions, while syncretism is also common amongst feature-matched NSG REALIS PERFECTIVE and IRREALIS forms of individual classifier stems. Formal characteristics found on some classifier forms may suggest a historical inflectional TAM marking system on the classifier stem. Marri Ngarr is distinct from other Western Daly languages in having a PERFECTIVITY distinction for most classifier stems in the REALIS. The patterning of REALIS/IRREALIS marking in relation to verbs expressing actualised/non-actualised events shows that the grammatical category of MOOD is fairly consistently aligned with the semantic notion of actualisation, providing data in support of the validity of the REALIS/IRREALIS categories cross-linguistically (Mithun 1995; Elliot 2000; Verstraete 2005; von Prince, Krajinovic, and Krifka 2022). The apprehensive construction is exceptional in being a non-actualised event marked by REALIS; however the apprehensive data does not necessarily support an argument against the validity of the categories REALIS and IRREALIS: individual languages may vary in terms of what kinds of events are considered actualised/non-actualised.

In the next chapter, I turn to examine the derivational morphology on the verb: body part incorporation, applicatives, the malefactive marker and reciprocal constructions.

Chapter 8

Derivational processes

8.1 Body part incorporation

In this section I examine the morphosyntax of body part incorporation, a type of noun incorporation (NI) which is commonly found on Marri Ngarr verbs. NI is defined as a construction where a noun stem combines with a verb stem to derive a complex verb (Sapir 1911, pp. 254 – 5; Mithun 1984b, p. 847). An extensive body of research has been undertaken on NI, particularly since the 1980s and notably with the work of Mithun (1984b) who gives a functional account of the phenomenon, research from M. C. Baker (1988) and Sadock (1980) who propose syntactic analyses of NI and Rosen (1989) and di Sciullo and Williams (1987) who argue that it is a lexical word building process. Later research has shifted from a structural analysis to focus on the semantics of NI constructions (Chung and Ladusaw 2003; Farkas and de Swart 2003; van Geenhoven 1998). Masmam (2009) provides a useful overview of this research. Body part nouns are a subset of nouns that seem particularly prone to incorporation (Sapir 1911, pp. 252–4; Mithun 1984b, p. 858) and in some languages the only type of nouns for which incorporation is permitted (Aikhenvald 2000).

NI is often a defining feature of polysynthetic languages (M. C. Baker 1996, pp. 17–19; Evans and Sasse 2002, and see discussion in §1.2) and is found in many languages across Northern Australia including Gunwinyguan languages (e.g. Bininj Gun-wok (Evans 2003, pp. 450–487); Wubuy (B. Baker 2014a); Kunbarlang (Kapitonov 2019, pp. 213–220); Warray (Harvey 1996) and Rembarrnga (Saulwick 2003)), Tiwi (Osborne 1974)) and all Daly languages (Nordlinger 2017, pp. 796–798). Harvey (1996, p. 143) notes that in these Australian languages which permit incorporation, body part nouns are always included as a subset of the nouns that can incorporate. For Murrinhpatha, only body parts and the nominal for ‘fire’ are permitted to incorporate (Forshaw 2011, p. 39; Mansfield 2019, p. 205). For other Daly languages generic NI is also possible but body parts are the primary source of incorporating nouns (Marrithiyel Green 1989, p. 222; Emmi: Ford 1998, p. 231; Ngan’gitjemmerri: Reid 1990, pp. 189, 191–192; Kamu Harvey 1989, p. 93).

In the Marri Ngarr examples in (796) - (798) the form */-mi-/*, which is formally identical to the independent nominal for ‘eye’, occurs in the same position in all three verbs; however it serves a distinct function in each construction. In (796) it functions as part of the patient argument of a transitive verb and retains its body part semantics: this is an example of body part incorporation. In (797) it is part of the lexical stem itself

and contributes semantically to the meaning of the lexical stem. Diachronically the elements in (796) and (797) are related, but synchronically they are analysed as having distinct functions. The forms in (797) are discussed below in §8.1.5. In (798), the body part semantics are not present and */-mi-/* signals a change in the valence of the verb: this element is an APPLICATIVE marker, an element which is again analysed as being diachronically related to incorporated body parts and is discussed in §8.2.

(796) **pariŋmiwurita**
 pari-ŋ-**mi**-yurit=a
 3NSG.HANDS.R.PFV-1SG.O-**eye**-cover=PST
 ‘They covered my eye.’ (PT: IG3-034-A)

(797) **kirinŋimicerkuzija**
 kidin-ŋ-**micer**=kuzi=ja
 3SG.CAUSE.R.IPFV-1SG.O-**stare.at**=3SG.SIT.R.IPFV=PST
 ‘He was watching me.’ (JoN: IG3-037-A)

(798) **naŋji** **daŋβapa,** **naŋji**
 naŋci za-ŋ-βap=a naŋci
 THING 3SG.MOUTH.R.PFV-3SG.F.OBL-transfer=PST THING
atimuwura
 adi-ni-**mi**-wur=a
 3SG.CAUSE.R.PFV-3SG.M.OBL-**APPL**-return=PST
 ‘He gave it to her, she returned it to him.’ (CP: RN5-001-A)

The ensuing sections focus on body part incorporation constructions such as (796). Table 8.1 below lists all the body part nouns which are observed participating in incorporation constructions in the corpus.¹³⁰ They are listed next to the equivalent nominal forms which occur independently in the NP. Incorporated body part forms which are phonologically reduced as compared with their external counterparts are highlighted in the table.

130. Only one adverbial element is also found to incorporate: the adverb */-βiŋi-/* can incorporate in a post-lexical stem position. See §3.1.7 for a brief description of this element. A very limited number of examples also suggest incorporation of some type of quantificational element (i) (also see example (157) in §3.1.9). This type of construction requires further investigation.

(i) **jin** **ajilirki** **ŋjŋ-annjumbukatkuzi**
 jin a=jilirki ŋjŋ-annjumbu-kat=kuzi
 1SG.PRO ANIM=meat 1SG.SWING.R.IPFV-**piece?**-cut=3SG.SIT.R.IPFV
 ‘I cut off **one piece of** meat.’ (PT: IG3-036-B)

Incorporated form	Independent form	Gloss
/-cer-/	/cer/	‘mouth/lip’
/-der-/	/der/	‘tooth’
/-jen-/	/jen/	‘nose’
/-jeŋ-/	/jeŋ/	‘breast’
/-jeri-/	/jeri/	‘tail’
/-kari-/	/kari/	‘arm/shoulder’
/-ma-/	/mazi/	‘belly’
/-madi-/	/maradi/	‘chest’
/-maŋti-/	/maŋti/	‘neck’
/-men-/	/menmi/	‘arm’
/-mi-/	/mi/	‘eye/face’
/-ŋaɫ-/	/ŋaɫ/	‘mouth/tongue’
/-peŋki-/	/peŋki/	‘knee’
/-peri-/	/peri/	‘foot’
/-pi-/	/puŋidit/	‘head’
/-pundi-/	/pundi/	‘hand’
/-βwa-/	/βwa/	‘leg/thigh’
/-zadi-/	/zadi/	‘back’
/-taŋ-/	/taŋi/	‘ear’
/-waŋ-/	/waŋ/	‘leg/calf’

Table 8.1: Incorporated body part forms and their independent equivalents

A formal distinction between incorporated and external forms is also demonstrated in examples (799) to (801) below, where the truncated form is incorporated into the verb while the full form appears in the external NP.

- (799) naŋ ji adigubaka menmi wanimenβuɟa
naŋ ji adi-yubak=a menmi wani-men-βuɟ=a
3SG.M.PRO DEM.3 3SG.CAUSE.R.PFV-fall=PST arm 3SG.GO.R-arm-break=PST

‘He fell down, he broke his arm’ (JN: IG3-012)

- (800) naŋ ma ji kulididipezakuzija
naŋ ma= ji kuli-didi-pi-zaɫ=kuzi=ja
3SG.M.PRO MASC= DEM.3 3SG.BUMP.R.IPFV-2DU.O-head-hit.PL=3SG.SIT.R.IPFV=PST
na puŋidit jeɟi karila ŋarin
na puŋidit jeɟi karila =ŋarin
LOC head WEAP rock =INSTR

‘He hit you two fellas on the head with a rock.’ (PT: IG3-039-A)

- (801) **ariŋmapita** **mazi**
 ari-ŋ-ma-pit=a **mazi**
 3SG.HANDS.R.PFV-1SG.O-belly-wash=PST **belly**
 ‘He washed my belly.’ (RK: 197207-MW-M02004363A)

The morphosyntax of the incorporated body part constructions is addressed in §8.1.1, while §8.1.2 examines the types of grammatical functions which can be associated with an incorporated body part. Other sections examine morphosyntactic features of body part incorporation in Marri Ngarr that have often been seen as definitional in the literature on NI. The productivity of the incorporated noun plus lexical verb combinations and the ability for these constructions to have semantically equivalent non-incorporating paraphrases is assessed in §8.1.3. §8.1.4 examines the features of ‘doubling’, where a co-referential external NP co-occurs with the incorporated form (Mithun 1984b, p. 863; Rosen 1989, pp. 302–4) and external modification, or ‘stranding’ (Mithun 1984b, p. 870; Rosen 1989, pp. 298–301) where a modifier occurs in an external NP to modify the incorporated noun. Both of these features are thought to provide evidence that verbal valence is maintained in the NI construction, as the external argument position may still be occupied (Rosen 1989, pp. 297–304). Consideration of the Marri Ngarr data within the context of the features outlined above suggests that some constructions involving incorporated body part forms fall outside of a definition of incorporation and may be better analysed as lexical stem formations. Though, as mentioned above, I don’t consider these (synchronically) to be types of incorporation constructions, these constructions are discussed in §8.1.5 in order to examine the features which distinguish them from incorporation constructions.

8.1.1 Morphosyntax

In NI constructions in Marri Ngarr the incorporated body part noun functions as part of an argument of the verb, usually associating with the OBJECT-marked argument of a transitive verb. A part/whole relationship exists between the body part noun, which acts as the part, or ‘possessum’, and the whole, or ‘possessor’ which is usually encoded via OBJECT marking. In (802a) below, the incorporated body part */-mi-/* preceding the lexical stem is the possessum, and the possessor is the 1SG OBJECT. When an incorporated body part is associated with a 3SG object (a category unmarked pronominally) the incorporated body part is the only element of the construction realised on the verb (802b) (also see §5.6.3).

- (802) a. **pariŋmiwurita**
 pari-ŋ-mi-yurit=a
 3NSG.HANDS.R.PFV-1SG.O-eye-cover=PST
 ‘They covered my eye.’ (PT: IG3-034-A)
- b. **parimiwurita**
 pari-mi-yurit=a
 3NSG.HANDS.R.PFV-eye-cover=PST
 ‘They covered his eye.’ (JoN: IG3-033-A)

The possessor can occasionally be expressed as an external noun (also observed for Emmi (Ford 1998, p. 237) and Ngan'gitjemmerri (Reid 1990, pp. 199–214)), though in Marri Ngarr this is only observed when the possessor is inanimate and the body part is metaphoric (803) - (804).

- (803) *naŋ ji atiḩaṭa θawur arimenβuṭa*
naŋ ji adi-ni-βac=a ṭawur ari-men-βuṭ=a
 3SG.M.PRO DEM.3 3SG.CAUSE.PFV-jump=PST tree 3SG.HANDS.R.PFV-arm-break=PST
 'He jumped down and broke the tree branch.' (JN: IG3-010-A)

- (804) *wuji ṅata ji kinmaβuckwani*
wuji ṅata ji kiŋ-ma-βuc=kwani
 PLACE house DEM.3 3SG.SWING.R.IPFV-belly-sweep=3SG.GO.R.IPFV
 'She swept out the inside of the house.' (JoN: IG3-030-B)

Non-body part nominals must be expressed via external NPs. A contrast in the realisation of body part vs non-body part nominals is illustrated below in (805). This appears to set up a structural distinction based on (in)alienability: inalienable possession, where there is a permanent relationship between possessor and possessum (e.g. a person and their body part), is expressed via incorporation whereas alienable possession, which may be terminated at some point (T. E. Payne 1997, pp. 104–105), is expressed in the NP. However, other inalienable possessums such as kin terms cannot be incorporated, and incorporability of body parts is also dependent on their grammatical function (§8.1.2). Below in §8.1.3 I discuss the issue of whether body part incorporation is obligatory.

- (805) a. *arinperipita*
ari-ŋ-peri-pit=a
 3SG.HANDS.R.PFV-1SG.O-foot-wash=PST
 'He washed my foot.' (HK: 197207-MW-M02004362B)
- b. *ŋa kurpitni ja ipezi*
ŋa kur-pit=ni je= jipezi
 3SG.F.PRO 3SG.HANDS.IRR-wash=FUT CHILD= little
 'She's going to wash the baby.' (PT: IG3-034-B)

8.1.2 Grammatical function

Cross-linguistically, NI is most commonly observed on patients/objects of transitive verbs (Mithun 1984b, p. 875; M. C. Baker 1988; Rosen 1989, p. 315), and if a language

also permits subject incorporation, it only permits it on (intransitive) subjects of unaccusative verbs, which are often thought to underlyingly be patients (Rosen 1989, p. 315). Some languages are also known to incorporate locatives and instruments (Mithun 1984b, p. 875; Rosen 1989, p. 315) and even transitive subjects have been found to incorporate (B. Baker 2014a, p. 249), along with other types of elements such as modifiers (e.g. Bininj Gun-Wok: Evans 2003; Chukchi: Spencer 1995; Athapaskan: Rice 2000). In Marri Ngarr, incorporated body parts are usually associated with objects of transitive verbs, in accordance with the typological patterns. Below in (806) we see incorporation of the body part */-peri-/* ‘foot’, which functions as part of the OBJECT-marked patient.

- (806) *ariŋperiwaɹaɹa*
ari-ŋ-peri-waɹaɹa=a
 3SG.HANDS(TR).R.PFV-1SG.O-foot-shake=PST
 ‘He shook my foot.’ (PT: IG3-037-B)

Unaccusative subjects can also licence body part incorporation, though there are only a handful of examples of this in the corpus.¹³¹ The construction in (807) has an anticausative reading: the lexical stem */-βuɹ-/* ‘break’ is bivalent, but the INTRANSITIVE classifier stem only permits one argument, the subject, which maps to an undergoer. The incorporated body part */-men-/* ‘arm’ is associated with this unaccusative subject.

- (807) *naŋ* *ji* *adigubaka* *menmi*
naŋ *ji* *adi-yubak=a* *menmi*
 3SG.M.PRO DEM.3 3SG.CAUSE.R.PFV-fall=PST arm
wanimenβuɹa
wani-men-βuɹa=a
 3SG.GO(INTR).R.PFV-arm-break=PST
 ‘He fell down, he broke his arm.’ (JN: IG3-012-A)

This association of the body part with the subject can be contrasted with the construction in (808). Here the same body part occurs in a transitive construction, involving a 3SG patient which is pronominally unmarked, but expressed as an external noun.

131. Subject incorporation can also be found in SAY/DO bipartite constructions. These constructions differ from standard bipartite constructions in Marri Ngarr in that the elements which usually functions as a lexical stem is preposed to the verb, and this coverb and classifier stem complex are two phonologically separate words. Like other examples of subject incorporation, these constructions have unaccusative subjects (i).

- (i) *bik* *ŋimimija*
bik *ŋimi-mi=ja*
open 1SG.SAY/DO.R.PFV-eye=PST
 ‘I woke up. [Lit: My eyes opened].’ (PT: IG3-033-A)

- (808) *naŋ* *ji* *atiɸaɽa* *θawur*
naŋ *ji* *adi-ni-βac=a* *ɽawur*
 3SG.M.PRO DEM.3 3SG.CAUSE.R.PFV-3SG.OBL-jump=PST **tree**
arimenβuɽa
ari-men-βuɽ=a
 3SG.HANDS(TR).R.PFV-arm-break=PST
- ‘He jumped down and broke the tree branch.’ (JN: IG3-010-A)

Body part incorporation is permitted in impersonal constructions in Marri Ngarr (see §5.6.3 for a description of the impersonal constructions). In these constructions the body part is associated with the OBJECT-marked argument, like in the transitive verbs described above; however in impersonal constructions the OBJECT maps to the experiencer thematic role. In these constructions, like both patient and undergoer incorporation described above, the thematic role associated with the incorporated body part is non-agentive.

- (809) *ɸeŋgi kiŋβeŋgiɸiŋjuŋgani*
peŋki ki-ŋ-peŋki-juŋ~juŋ=kani
 knee 3SG.MOUTH.R.IPFV-1SG.o-knee-REDUP~hurt=3SG.GO.R.IPFV
- ‘My knee hurts.’ (JoN: IG3-030-A)

While body part incorporation readily associates with core arguments, particularly OBJECTS, as shown in the constructions above, there are no examples of body part incorporates associating with OBLIQUE-marked arguments which map to non-core arguments such as benefactives, goals etc. Cross-linguistically, oblique arguments such as benefactives and goals are apparently never available for incorporation (Rosen 1989, p. 316). Body part incorporation can, however, occur in reflexive constructions in Marri Ngarr. The example pair below shows the body part associating with the OBJECT-marked patient of a transitive verb as normal in (810a), while in the reflexive construction in (810b) the body part instead associates with OBLIQUE. However, this association between the incorporated body part and OBLIQUE marker in (810b) is not a violation of the generalisations regarding oblique marking. As discussed in §5.6.4, Marri Ngarr is highly unusual in its use of OBLIQUE to mark reflexive arguments; therefore in these constructions OBLIQUE is used to mark a core argument (albeit an atypical one) rather than an oblique argument.

- (810) a. *ariŋmipita*
ari-ŋ-mi-pit=a
 3SG.HANDS.R.PFV-1SG.o-face-wash=PST
- ‘He washed my face.’ (HK: 197207-MW-M02004362B)

b. jin ηariηinmipita
 jin ηari-ηin-mi-pit=a
 1SG.PRO 1SG.HANDS.R.PFV-1SG.OBL-face-wash=PST

‘I washed my face.’

(JN: IG3-007-B)

In contrast to the incorporation associated with core arguments, body part nouns which are associated with non-core arguments freely occur as external NPs (811) - (812).

(811) φeri ηadiβuɲi
 peri ηadi-βuɲ=ni
 foot 1SG.FEET.IRR-break=FUT

‘I’m going to break it with my foot.’

(PT: IG3-016-A)

(812) φereri wulkirim kujerwuri
 peri ari wulkirim kujer=wuri
 foot DEM.1 blood 3SG.TRAVEL.R=TOWARDS

‘Blood’s coming out of my foot.’

(JN: IG3-012-B)

Though far less prevalent in the corpus, there are, however, a handful of examples which suggest that locative referents are also available for body part incorporation. In (813), the body part noun /-jeri-/ ‘tail’ incorporates and the external noun /jeri/ is also present as an external noun in a locative phrase marked by the preposition /na/ (§3.1.8). This is an instance of doubling, a feature of some NI constructions where an incorporated noun co-occurs with a co-referential external noun (see §8.1.4 below). Since the external noun expresses a non-core, locative referent, this implies that the co-referential incorporated noun is too. Two other examples of the same type of construction are given in (814) - (815).

(813) naη ma ji kumuηjerikatkuzi na
 naη ma= ji kumun-jeri-kat=kuzi na
 3SG.M.PRO MASC= DEM.3 3SG.PIERCE.R.IPFV-tail-cut=3SG.SIT.R.IPFV LOC
 jeri
 jeri
 tail

‘He cut it (goanna) at the tail.’

(JoN: IG3-036-B)

(814) *naŋ ma ji kulididipezakuzija*
naŋ ma= ji kul-didi-pi-zaɹ=kuzi=ja
 3SG.M.PRO MASC= DEM.3 3SG.BUMP.R.IPFV-2DU.O-head-hit.PL=3SG.SIT.R.IPFV=PST
na puŋidit jeɹi karila ŋarin
na puŋidit jeɹi karila ŋarin
 LOC head WEAP rock =INSTR

‘He hit you two fellas on the head with a rock.’ (PT: IG3-039-A)

(815) *naŋ aŋmaŋɟidaja na muŋgumur*
naŋ aŋ-maŋɟi-zaɹ=ja na muŋkumur
 3SG.M.PRO 3SG.SWING.R.PFV-neck-hit.PL=PST LOC back.of.neck/head

‘He hit him on the back of his neck.’ (PT: IG3-026-A)

Similar constructions are described for Anindhilyakwa (van Egmond 2012, pp. 272–274, 296–298), where an incorporated body part is coreferential with an external noun marked for locative case. These constructions are only permitted for verbs of bodily contact, e.g. ‘hit’, ‘rub’, ‘grab’ and ‘pull’ and are thought to be differentially marked because for these bodily contact verbs, affecting the part means affecting the whole, e.g. to hit someone’s leg means to hit that person, while in contrast, to wash someone’s leg does not imply the washing of that person (van Egmond 2012, pp. 273–274). This type of analysis may also explain why we see locative incorporation in Marri Ngarr, but only rarely, in these verbs of bodily contact.

The data shows that objects of transitive verbs are the most likely candidates for body part incorporation, and incorporation of unaccusative subjects is also permitted. OBLIQUE-marked arguments are only candidates for body part incorporation when they mark participants of reflexive verbs. Rarely, locative referents are observed incorporating, but only if they are verbs of bodily contact. In all situations the argument associated with incorporation maps to a non-agentive thematic role: either patient, undergoer, experiencer or locative referent.

8.1.3 Productivity and paraphrase

Body part incorporation in Marri Ngarr is a productive process, where different body part nouns may be readily interchanged for one another in the same templatic position in the verb (provided they create semantically plausible combinations), as in (816a) - (816c):

(816) a. *ŋarimipita*
ŋari-mi-pit=a
 1SG.HANDS.R.PFV-face-wash=PST

‘I washed his face.’ (HK: 197207-MW-M02004362B)

- b. η arijenpita
 η ari-jen-pit=a
 1SG.HANDS.R.PFV-nose-wash=PST
 ‘I washed his nose.’ (HK: 197207-MW-M02004362B)
- c. wu η a η ari η adipita
 wu η a η ari-zadi-pit=a
 already 1SG.HANDS.R.PFV-back-wash=PST
 ‘I washed his back already.’ (HK: 197207-MW-M02004362B)
- d. η aripita cuja
 η ari-pit=a cuja
 1SG.HANDS.R.PFV-wash=PST yesterday
 ‘I washed him yesterday.’ (HK: 197207-MW-M02004362B)

These incorporated nouns can also be omitted with no change to the meaning of the verb (816d) showing that the body part is semantically associated with an argument of the verb, rather than forming part of the lexical verb and being associated with the event. Further evidence to show that the body part does not associate with the lexical stem comes from characteristics of the classifier stem. Classifier stems are either TRANSITIVE or INTRANSITIVE (§5.3.3) and if the body part were to combine with the lexical stem to form a new lexical stem, consequently losing its argument status, this valency-reducing process should be revealed through a change in classifier stem, as seen in the (non-body part) example pair in (817). This change of classifier stem is not observed with the presence or omission of an incorporated body part.

- (817) a. η ulukata puja
 η uli-kat=a puja
 1SG.BUMP(TR).R.PFV-cut=PST rope
 ‘I cut the rope.’ (JoN: IG3-035-A)
- b. puja wanikata
 puja wani-kat=a
 rope 3SG.GO(INTR).R.PFV-cut=PST
 ‘That rope broke.’ (PT: IG3-036-B)

Paraphrase, or the ability to express semantically equivalent meanings in both a NI construction as well as a verbal construction with an external NP is a feature deemed essential for NI as defined by Mithun (1984b). She argues that storage of structurally distinct but otherwise identical expressions would be inefficient and that incorporation constructions must play a discourse function role (Mithun 1984b, p. 848). External NP paraphrases of NI constructions are possible in some Western Daly languages (Marrithiyel: Green 1989, p. 249; and Emmi: Ford 1998, p. 232) and in Ngan’gitjemerri (Reid 1990,

p. 193). Forshaw (2011, p. 58) reports that paraphrase is not possible for Murrinhpatha (however this statement refers to body parts associated with objects only, see Forshaw (2011, pp. 89–90)). There is only one example of paraphrase in the Marri Ngarr corpus,¹³² involving a subject argument: a NI construction is shown in (818a) while (818b) provides the external NP paraphrase. Thus the data shows that body part incorporation is the clear default construction when it comes to encoding body parts that function as core arguments of the verb, in particular objects, and seems almost obligatory in Marri Ngarr.¹³³

- (818) a. **wanimandaβuɟa**
 wani-**maɲti**-βuɟ=a
 3SG.GO.R-**neck**-break=PST
 ‘He broke his neck.’ (JN: IG3-012-A)
- b. **maɲdi waniβuɟa**
maɲti wani-βuɟ=a
neck 3SG.GO.R-break=PST
 ‘He broke his neck.’ (JN: IG3-012-A)

One lexical stem, */-kurp-/* ‘hit’, is never observed co-occurring with incorporated body parts. In (819a) below this lexical stem appears in a construction with an object body part; however this body part is realised as an external NP. */-kurp-/* appears to be semantically equivalent to a similar form */gur/* in Marrithiyel, which is one of a handful of lexical stems in Marrithiyel for which body part incorporation is not available (Green 1989, p. 258). This same lexically-specified restriction seems to apply to the Marri Ngarr lexical stem */-kurp-/*.¹³⁴ However, this lexical stem has a suppletive form, */-zaɟ-/* ‘hit.PL’, usually used to mark plural arguments. Interestingly, this suppletive form is also found marking verbs with singular arguments if they include an incorporated body part (819b). This suggests that the suppletive form of the lexical stem can be co-opted for functions aside from marking pluractionality when it is not possible for the singular form to do so, such as when the lexical stem co-occurs with an incorporated body part (see also §5.5.2).

132. Other exceptions are idiomatic phrases such as (i) below, whose literal interpretation: ‘Hold one’s ear’ involves an externally expressed body part, but whose overall interpretation is ‘to know’.

- (i) **θaɲi ɲiriɲbac**
 ɲaɲi ɲir-ɲ-bac
 ear 1SG.HANDS.R.IPFV-2SG.O-hold
 ‘I know you.’ (RK: 197207-MW-M02004362B))

133. However, a large percentage of the data in the corpus are elicited constructions. It’s possible that more naturalistic data involving a mix of foregrounded and backgrounded information could reveal more externally expressed body part NPs (in accordance with a discourse function analysis where the NI construction functions as a backgrounding device Mithun (1984b)).

134. In the same elicitation, verbs with similar translations but different lexical stems freely took incorporated body part nouns.

Doubling and stranding are both considered indicators that NI constructions are not valence-reducing: the argument position associated with the incorporated noun is maintained and this is evidenced by being optionally filled by a head (doubling) or modifier (stranding) co-referential to the incorporated noun. It is intriguing then that despite doubling being prevalent in the Marri Ngarr incorporation data, there is little evidence for stranding. The reason given for the lack of stranding in Murrinhpatha, where headless NPs are not permitted (Forshaw 2011, p. 56), may also apply to Marri Ngarr where modificational nominals cannot function alone as NPs (§4.1.1).

8.1.5 Lexical stem formation

Other constructions exist in the corpus which are formally similar to body part incorporation constructions, but which don't exhibit features which characterise incorporation constructions in Marri Ngarr such as productivity and doubling. Further, in these constructions the body parts do not seem to associate semantically with an argument of the verb. I suggest that these constructions are a type of lexical stem formation, where a body part noun and a lexical stem have combined to form a new lexical stem. Evans (1996, pp. 72–3) makes a distinction between body part incorporation and lexical stem formation (which he terms 'syntactic' and 'lexical' incorporation respectively) in the Gunwinyguan language Mayali. He differentiates the two types by noting that while body part incorporation in Mayali is productive, available for paraphrase with an external NP and restricted in the range of grammatical functions it can associate with, lexical stem formation is fixed and unavailable for a semantically equivalent paraphrase with an external NP (Evans 1996, pp. 72–3). Lexical stem formations are also considered freer in terms of the grammatical relations between the former nominal and verb (Evans 1996, p. 75). Research into NI in Daly languages has often adopted the distinctions of Evans (1996), as similar structural distinctions can be found in these languages (Marrihiyel Green 1989, pp. 270–9; Ngan'gitjemerri: Reid 1990, pp. 192–9; Emmi: Ford 1998, pp. 235–242; Murrinhpatha: Walsh 1996a, pp. 355–358; Forshaw 2011, pp. 66–8). For these languages, only a subset of commonly occurring incorporating body part nouns can also be involved in lexical stem formation (Reid 1990, p. 198; Ford 1998, p. 241).

An example of lexical stem formation in Marri Ngarr is given in (823). Here, the body part noun /-*ṭaŋ*-/ 'ear' has fused with a lexical stem form /*dak*/ to form a new lexical stem /*ṭandak*/. The form /*dak*/ does not combine with any other incorporated body part forms (or appear on its own as a lexical stem), i.e. there is no evidence of productive incorporation, nor is there any evidence of doubling. The semantics of the body part /-*ṭaŋ*-/ 'ear' are clearly related to the verb translatable as 'listen': a meaning associated with the verb rather than an argument. Further, incorporated body parts cannot normally associate with OBLIQUE-marked arguments (§8.1.2).

- | | | | |
|-------|-----------------------------|--|-----------------|
| (823) | <i>jin</i> | <i>ŋiniŋḁandakaŋi</i> | <i>naḁi</i> |
| | <i>jin</i> | <i>ŋi-niŋ-ṭandak=kaŋi</i> | <i>nadi</i> |
| | 1SG.PRO | 1SG.MOUTH.R.IPFV-2DU.OBL-listen=1SG.SIT.R.IPFV | 2DU.PRO |
| | 'I'm listening to you two.' | | (PT: IG3-038-A) |

The example in (824) provides two instances of lexical stem formation using the body

(827) *nin* *ambarat* *muli* *ji*
nin *am-βarat* *muli=* *ji*
 2SG.PRO 2SG.PIERCE.IRR-grab FEM= DEM.3

‘You grab the woman.’

(PT: IG3-022-A)

One lexical stem formation has been found where the body part noun and lexical stem are positioned in reverse order. In (828) below, */bic-mi/* ‘sit-eye’ combines to form */bicmi/* ‘watch’. Interestingly, in two other Western Daly languages, Marrithiyel and Emmi, incorporated body parts can fill two different slots in the verb template: the pre- and post-lexical stem positions. The lexical stem formation in (828) suggests that a post-lexical stem slot was also available for body part incorporation in Marri Ngarr historically.

(828) *ambu* *ɲambuɟibut* *ariwu* *wuɟi* *lijik* *kawɲɟbicmi*
ambu *ɲambu-cibut* *ari=wu* *wudi* *lijik* *kawu-ɲ-bicmi*
 NEG 1INCL.DU.SIT.IRR-SWIM DEM.1=WU water no 3.SIT.R-DU.S.INTR-watch
βiɲi *wuri*
βiɲi =*wuri*
 now =TOWARDS

‘We can’t swim in this water, they’re watching us.’

(CM-Tree-Dreaming)

The line between incorporation and lexical stem formation is sometimes unclear and there are constructions which don’t fit either definition neatly. Though the reciprocal example below in (829) could be interpreted semantically as a lexical stem formation, i.e. */pundi-ɟap/* ‘hand-touch’ → */pundiɟap/* ‘slap’, this type of construction should not permit doubling.¹³⁷ On the other hand an incorporation construction where the body part associates with the (reciprocal) patient, leading to an interpretation equivalent to ‘they’re all touching each other’s hands’ seems incompatible with the interpretation in the translation. An alternative analysis could be that this is an instance of instrument incorporation, i.e. ‘they’re touching each other with their hands’; however there is no other evidence of instrument incorporation in the corpus.

(829) *pundi* *ɣuriβundiðaðapangi*
pundi *kuri-pundi-ɟap~ɟap-aŋki*
 hand 3NSG.HANDS.R.IPFV-hand-REDUP~touch-RECIP

‘They’re all slapping each other.’

(JJ: RN5-002-B)

137. While we might also expect the form of the body part to be available for reduplication, many lexical stem formations in Murrinhpatha show only the historical lexical stem being affected by reduplication (Mansfield 2019, p. 214).

8.1.6 Summary

Examination of the data has revealed that body part incorporation constructions are valency-maintaining constructions where the body part usually forms part of the object of a transitive verb (though association with other grammatical functions is possible). These incorporation constructions exhibit some defining features described for (certain types of) NI cross-linguistically (Mithun 1984b; M. C. Baker 1988; Rosen 1989; Massam 2009), but not others. Marri Ngarr body part incorporation is clearly a productive process: interchangeability of various body part nouns in combining with the one lexical stem shows that this is a productive process available to any semantically appropriate body part, rather than being a close relationship between a particular noun and verb stem (cf. lexical stem formation §8.1.5). Incorporation constructions freely permit doubling, where the incorporated body part co-occurs with a co-referential noun in an external NP, and this provides evidence for an external NP argument slot which is co-indexed with the body part noun. External modification is another feature which provides evidence for an external NP argument slot. It is unclear whether we observe this feature in the corpus, or whether a similar type of construction is instead an external possession construction where the possessor is an external nominal. Though we may have expected external modification to occur freely in a similar way to doubling, the lack of this feature in the incorporation data may be due to the inability for a modificational nominal to occur on its own in an NP. Paraphrase, where an incorporated body part construction can be alternately rendered by the body part being expressed in an external NP, is very rare in Marri Ngarr, only found for body part nouns associated with unaccusative subjects. Rather than incorporation being a discourse function tool for backgrounding (Mithun 1984b), it seems that incorporation in Marri Ngarr is the default construction for encoding body part nouns which function as part of an object argument, and indeed seems almost obligatory. Further research using more naturalistic data would be necessary to test this claim. Other constructions involving body part terms in a pre-lexical stem position fall outside NI definitions and are instead considered to comprise, together with the (original) lexical stem, a new lexical stem. However, the formal relationship between these elements in the two types of constructions suggests that the lexical stem formation process has developed out of historical body part incorporation constructions.

8.2 Applicative markers

Peterson (2006, p. 1) defines an applicative as verbal morphology which promotes a peripheral argument/adjunct to the status of a core-object argument. In Marri Ngarr two **APPLICATIVE** markers can occur in the verb slot immediately prior to the lexical stem, though their use in the corpus is rare. This verb slot is also used for incorporated body part nominals (§8.1). The forms of the **APPLICATIVE** markers are */-mi-/* and */-ma-/*. */-mi-/* has a variant */-mu-/* which can be realised before syllables containing non-front vowels. **APPLICATIVE** markers are formally identical to the incorporated body part forms */-mi-/* ‘eye/face’ and */-ma-/* ‘belly’ as well as to the initial syllables of some lexical stem formations (§8.1.5), creating some ambiguity. However, **APPLICATIVE** markers are always identifiable because their appearance on the verb co-occurs with other evidence of a valence change: a change in the transitivity value of the classifier stem, as well as the addition of **OBJECT**-marking to the verb (except when an **APPLICATIVE** introduces a 3SG object). Body parts incorporates also usually co-occur with **OBJECT**-marking, but

the absence of a body part does not also result in the loss of OBJECT-marking (i.e. body part incorporation is not valency-increasing). An example of an applicative construction in Marri Ngarr is given in (830). Firstly we see an intransitive verb marked by an INTRANSITIVE classifier stem in (830a), while in (830b) an APPLICATIVE is present which increases the valence of the verb, introducing an OBJECT-marked argument. As the increase is from monovalent to bivalent, we can also observe a change in classifier stem from INTRANSITIVE to TRANSITIVE.

- (830) a. *naŋ waniyubaka*
naŋ wani-yubak=a
 3SG.M.PRO 3SG.GO(INTR).R.PFV-fall=PST
 ‘He fell down.’ (JN: IG3-006-A)
- b. *dakta ʃaŋmugubaka*
dakta ʒa-ŋ-mi-yubak=a
 doctor 3SG.MOUTH(TR).R.PFV-1SG.O-APPL-fall=PST
 ‘The doctor made me stop (smoking).’ (ET: JM-2015-07-14)

Transitive verbs derived by the APPLICATIVE marker can also contain additional OBLIQUE-marked arguments, like regular transitive verbs. In (831b) the APPLICATIVE introduces a pronominally unmarked 3SG object, forming a transitive verb (cf. (831a)),¹³⁸ then in (831c) the APPLICATIVE marker again introduces a 3SG object while a third benefactive argument is encoded pronominally as OBLIQUE.

- (831) a. *niciŋani ceŋawura*
niciŋani ceŋa-wur=a
 morning 3SG.STAND.CMPLX(TR).R.PFV-return=PST
 ‘He came back this morning.’ (JN: IG3-008-A)
- b. *naŋʃi adimiwura*
naŋci adi-mi-wur=a
 THING 3SG.CAUSE(TR).R.PFV-APPL-return=PST
 ‘She returned it.’ (JJ: RN5-001-A)
- c. *naŋʃi daŋβapa,* *naŋʃi*
naŋci ʒa-ŋ-βap=a *naŋci*
 THING 3SG.MOUTH.R.PFV-3SG.F.OBL-transfer=PST THING
atimuwura
adi-ni-mi-wur=a
 3SG.CAUSE(TR).R.PFV-3SG.M.OBL-APPL-return=PST
 ‘He gave it to her, she returned it to him.’ (CP: RN5-001-A)

138. This verb takes the STAND.CMPLX classifier stem, which despite being categorised as formally TRANSITIVE due to its DUAL SUBJECT marking characteristics (§5.3.3.1) in other ways displays characteristics of an INTRANSITIVE classifier stem.

In a different construction in (832b) the APPLICATIVE promotes an adjunct in an already bivalent verb (cf. (832a)). The adjunct is promoted to OBJECT and this OBJECT functions as a possessor in conjunction with an external possessive pronoun, while the bound ANIM classifier forms the possessum.

- (832) a. *naŋ ma ji wudi ɲiŋɲi palitaʒa*
naŋ ma= ji wudi ɲiŋci pali-tac=a
 3SG.M.PRO MASC DEM.3 WATER one 3SG.BUMP.R.PFV-finish=PST
 ‘He drank that whole can of beer.’ (JoN: IG3-036-A)
- b. *cer gu aniŋ ɲiliŋmutaʒa*
cer ku a=niŋ ɲili-ɲ-mi-tac=a
 1PL.PRO TOP ANIM=2SG.PRO 1NSG.BUMP.R.PFV-2SG.O-APPL-finish=PST
 ‘We finished the meat on you.’ (PT: IG3-023-B)

It seems clear that the APPLICATIVE markers have developed from the incorporated body part for ‘eye’: /-mi-/ and ‘belly’: /-ma-/. This assumption is based on both elements having identical forms and sharing the same position in the verb template. Development of APPLICATIVE markers from incorporated body parts is also found in other Daly languages (Green 1989, pp. 288–300; Reid 2011, pp. 140–148; Nordlinger 2019, pp. 422–429). In Murrinhpatha the applicative /-ma-/ introduces an animate source argument. Nordlinger (2019, pp. 422–429) illustrates its development by showing how the ‘hand’ incorporated body part can also be semantically extended to a ‘whole person’ meaning, which then allowed for the animate source applicative to develop (in the appropriate structural context). In Marrithiyel, Green (1989, pp. 298–299) describes the /-ma-/ APPLICATIVE as a causative of emotion which attaches to adjectival stems expressing emotional states such as happiness. This APPLICATIVE is derived from the incorporated body part term for ‘belly’, a body part which is often considered the centre of emotions in Australian languages (e.g. Gaby 2008; Turpin 2002; Ponsonnet 2016). In Marri Ngarr, despite a formal distinction between the two APPLICATIVES, a more specific functional analysis for each of these markers cannot be made due to the small amount of applicative data in the corpus. The example below shows an intransitive verb in (833a), followed by verbs with the same lexical stem containing the applicative markers /mi-/ (833b) and /ma-/ (833c). The co-occurrence with TRANSITIVE classifier stems show that the applicative markers both increase the valence of the verb, but these examples provide no obvious distinction in function between the /mi-/ and /ma-/ APPLICATIVE markers.

- (833) a. *naŋ ga caŋawura jeŋi*
naŋ =ka caŋa-wur=a jeŋi
 3SG.M.PRO =TOP 3SG.STAND.CMPLX.R.PFV-return=PST today
 ‘He came back today.’ (JoN: IG3-019-B)

- (837) puja arga waniṅinkatṅaja βiṅi
 puja ar=ka wani-ṅin-kat-ṅa=ja βiṅi
 rope DEM.1 =TOP 3SG.GO.2.R-1SG.OBL-cut-MAL=PST now
 ‘That rope broke on me.’ (PT: IG3-036-B)

While the MALEFACTIVE marker always associates with an argument or an adjunct, it never introduces one. This is demonstrated below where the verbs in (838a) and (838b) have the same argument structure, but only one of these verbs is marked by the MALEFACTIVE marker, which associates with an OBLIQUE-marked referent.

- (838) a. niṅ eriṅinβuṅ
 niṅ ar-ṅin-βuṅ
 2SG.PRO 2SG.HANDS.IRR-1SG.OBL-break
 ‘You break it for me.’ (JN: IG3-011-B)
- b. ariṅinbuṅṅaja cendi jin
 ari-ṅin-βuṅ-ṅa=ja cendi jin
 3SG.HANDS.R.PFV-1SG.OBL-break-MAL=PST spear 1SG.PRO
 ‘He broke the spear on me.’ (HK: 1972-MW-M02004364B)

The MALEFACTIVE marker usually signals that some referent in the clause is considered by the speaker to be negatively affected by the event denoted by the verb.¹⁴⁰ The examples in (839) - (841) below illustrate this meaning.

- (839) jin ga ṅaṅininparupṅani
 jin =ka ṅaci-niṅ-βarup-ṅa=ni
 1SG.PRO =TOP 1SG.COOK.IRR-2DU.OBL-run.away-MAL=FUT
 ‘I’m gonna run away from you two.’ (PT: IG3-021-B: 80)

- (840) awu jiliki wunmuk kanipaliṅandi
 awu jilirki wunmuk kani-pali-ṅa=andi
 ANIM meat rotten 3SG.GO.R-2SG.ADJ-MAL=APPR
 ‘It might go rotten on you.’ (PT: IG3-036-B)

140. A small number of examples appear to contain the ADJUNCT marker independently of the verb, with the malefactive attached, e.g. (i). In these examples there is no obvious malefactive interpretation. The function of these forms is unclear and requires further investigation.

- (i) kwani wuri na jin naliṅa
 kwani =wuri na jin nali-ṅa
 3SG.GO.R =TOWARDS LOC 1SG.PRO 3SG.ADJ-MAL
 ‘He’s coming up to me.’ (PT: IG3-033-B)

(844) kinmelinmujiwinpiṅikaṅgi
 kinmel-ṅ-mujiwin-βiṅi-kaṅki
 1PL.GO.R.IPFV-DU.S.INTR-scared-**now-RECIP**

‘Us two are frightened of each other.’ (PT: IG3-019-B)

(845) ma guripmiṅiṅitaṅgiguniṅ
 ma= kudin-ṅ-mi-ṅit~ṅit-aṅki=kun-ṅ
 MASC 3NSG.CAUSE.R.IPFV-DU.S.INTR-eye-REDUP~hide-**RECIP=3NSG.GO.R.IPFV-DU.S.INTR**

‘Those two are hiding from each other.’ (JJ: RN5-002-A)

The reciprocal marker can be realised as */-kaṅki/* or */-aṅki/*, with either form able to appear in the same phonological environment. It is unclear what determines the form of the marker. Preston (2012, pp. 85–86) reports no morphophonological reasons for the difference in realisation and proposes that the vowel-initial form is realised in fast speech. In the corpus, reciprocal constructions marked for DUAL SUBJECT (see below) tend to take the */-kaṅki/* form (though in reciprocal constructions with plural participants there is not a strong tendency to use either form).¹⁴² Notably in a neutralisation construction (§6.4) where the subject is marked as PLURAL on the classifier stem even though it is semantically dual (and marked as such by the INTRANSITIVE DUAL SUBJECT marker), one speaker offers the construction below in (846a) which uses the */-kaṅki/* form. This is then corrected by another speaker to the construction in (846b) where the */-aṅki/* form is used. The first speaker then agrees that (846b) is the correct way to say it. This suggests the first speaker may initially be using the form which agrees with the DUAL SUBJECT marker (and semantic participant number), then corrects to the form which agrees with PLURAL SUBJECT marked on the classifier stem.

(846) a. kunmelipmuriṅkaṅgi piṅi
 kunmel-ṅ-muriṅ-kaṅki βiṅi
 3PL.GO.R.IPFV-DU.S.INTR-talk-**RECIP** now

‘Those two are talking to each other.’ (PT: IG3-019-B)

b. kunmelipmuriṅaṅgi βiṅi
 kunmel-ṅ-muriṅ-aṅki βiṅi
 3PL.GO.R.IPFV-DU.S.INTR-talk-**RECIP** now

‘Those two are talking to each other.’ (JoN: IG3-019-B)

The choice of form may have some basis in the dual/plural participant distinction, but this may then be overshadowed by other factors such as a tendency for */-kaṅki/* to appear

142. The */-kaṅki/* form occurs in 76% of reciprocal constructions marked with the DUAL SUBJECT marker */-ṅ/*; however plural reciprocal constructions show more variability, with only 57% of reciprocal constructions with plural participants using the */-aṅki/* form.

following vowels, or /-aŋki/ to appear in fast speech. The example pair below in (847) shows the obstruent-initial form occurring in careful speech (847a), while the vowel-initial form is present in fast speech (847b).

- (847) a. **kiliŋʔadikaŋgikariŋ**
 kili-ŋ-zadi-kaŋki-kari-ŋ
 1NSG.BUMP.R.IPFV-DU.S.INTR-back-RECIP=1NSG.SIT.R.IPFV-DU.S.INTR
 kaɟi
 kadi
 1DU.PRO
 ‘We’re sitting back to back.’ (PT: IG3-037-A)
- b. **kaɟi kilindadaŋgigariŋa**
 kadi kili-ŋ-zadi-aŋki=kari-ŋ=a
 1DU.PRO 1NSG.BUMP.R.IPFV-DU.S.INTR-back-RECIP=1NSG.SIT.R.IPFV-DU.S.INTR=PST
 ‘We were sitting back to back’ (PT: IG3-037-A)

The INTRANSITIVE form of the DUAL SUBJECT marker, /-ŋ/, can be used in reciprocal constructions which involve EXCL dual participants (848a) (almost always in conjunction with /-(k)aŋki/, though certain verbs for fighting are exceptions - see below). It occurs in its regular position in the second verb slot (see §6.1.1 for further details of the DUAL SUBJECT marker). Reciprocal constructions with plural participants contrast with those with dual participants in taking no number marking in the second verb slot (848b).

- (848) a. **naŋʔi ɣuŋβaβapɣaŋgigawuŋ**
 naŋʔi ku-ŋ-βap~βap-kaŋki=kawu-ŋ
 THING 3NSG.MOUTH.R.IPFV-DU.S.INTR-REDUP~give-RECIP=3.SIT.R.IPFV-DU.S.INTR
 ‘Those two are giving things to each other.’ (JJ: RN5-003-B)
- b. **naŋʔi ɣuβaβapɣiguli**
 naŋʔi ku-βap-βap-aŋki-kuli
 THING 3NSG.MOUTH.R.IPFV-REDUP~give-RECIP=3PL.SIT.R.IPFV
 ‘They (plural) are giving things to each other.’ (JJ: RN5-003-B)

The final nasal coda of REALIS IMPERFECTIVE forms of PIERCE, CAUSE and PUT classifier stems is deleted in both dual and plural reciprocal constructions (849).

- (849) a. **miji ɣumuŋʔarmuɣaŋgigawuŋ**
 miji kumuŋ-ŋ-βarmu-kaŋki=kawu-ŋ
 PLANT 3NSG.PIERCE.R.IPFV-DU.S.INTR-give-RECIP=3.SIT.R.IPFV-DU.S.INTR
 ‘Those two are giving each other food.’ (JJ: RN5-003-A)

- b. **miji gumiɸarmukaŋgikuli**
miji kumun-βarmu-kaŋki=kuli
 PLANT 3NSG.PIERCE.R.IPFV-giveRECIP=3PL.SIT.R.IPFV
 ‘They’re giving each other food.’ (JJ: RN5-003-A)

In (non-reciprocal) intransitive verbs the INTRANSITIVE DUAL SUBJECT marker co-occurs with certain INTRANSITIVE classifier stems and specifies the DUAL number category of the intransitive subject (§6.1.1), as in (850). In standard (i.e. non-reciprocal) verbs the INTRANSITIVE DUAL SUBJECT marker never co-occurs with TRANSITIVE classifier stems. In contrast, in reciprocal constructions the INTRANSITIVE DUAL SUBJECT marker almost always co-occurs with a TRANSITIVE classifier stem (851). There is a tension in these constructions in that while the TRANSITIVE classifier stem seems to signal that these reciprocal events are bivalent, the INTRANSITIVE DUAL SUBJECT marker seems to signal a decrease in valence.

- (850) **yawuɸmazi**
kawu-ɸ-mazi
 3.SIT(INTR).R-DU.S.INTR-wait
 ‘Those two are waiting.’ (JJ: RN5-003-A)

- (851) **pilinmazaɸakaŋgija**
puli-ɸ-mi-zaɸ~zaɸ-kaŋki=ja
 3NSG.BUMP(TR).R.PFV-DU.S.INTR-face-REDUP~hit.PL-RECIP=PST
 ‘They’re facing each other.’ (JJ: RN5-002-B)

The example pair below shows that while some verbs take INTRANSITIVE classifier stems in non-reciprocal verbs, when they occur in reciprocal constructions they generally require TRANSITIVE classifier stems.

- (852) a. **cer ga kinmelkiɸiɸija ga**
cer =ka kinmel-kiɸiɸi=ja =ka
 1PL.PRO =TOP 1PL.GO(INTR).R.IPFV-play=PST =TOP
 ‘We used to play.’ (RM: 20080521-MC-Bush-games)

- b. **gurigiɸiɸigaŋgi**
kuri-kiɸiɸi-kaŋki
 3NSG.HANDS(TR).R.IPFV-play-RECIP
 ‘They’re all playing around with each other.’ (JJ: RN5-001-B)

Occasionally, the combination of the INTRANSITIVE DUAL SUBJECT marker (or no marking in the case of plural participants) and TRANSITIVE classifier stem forms a reciprocal construction without the inclusion of the RECIPROCAL marker. This only occurs with certain verbs which denote events of fighting (853) - (854). The example pair in (854) shows that /-(k)an̄ki/ can optionally occur in this type of construction. Green (1989, pp. 122–123) also identifies a small set of verbs expressing various types of fighting events in Marrithiyel which he considers ‘inherently reciprocal’. These constructions don’t have the same restrictions on the type of reciprocal marker that can co-occur with 1INCL participants (see below) that is found for other reciprocal constructions in Marrithiyel.

- (853) a. **gʉŋjɪŋawuŋ**
kʉŋci-ŋ=kawu-ŋ
3NSG.HANG.R.IPFV-DU.S.INTR=3.SIT.R.IPFV-DU.S.INTR
 ‘Those two are fighting.’ (JJ: RN5-003-A)
- b. **gʉŋjɪgunmel**
kʉŋci=kunmel
3NSG.HANG.R.IPFV=3PL.GO.R.IPFV
 ‘They’re fighting.’ (JJ: RN5-003-A)
- (854) a. **niwɪŋ ma jɪ ʝendi**
niwɪŋ ma= jɪ cendi
3DU.PRO MASC= DEM.3 spear
gumʉŋdirikangikawɪŋ
kumun-ŋ-tiri-kan̄ki=kawu-ŋ
3NSG.PIERCE.R.IPFV-DU.S.INTR-fight-RECIP=3.SIT.R.IPFV-DU.S.INTR
 ‘Those two were having a fight with spears.’ (PT: IG3-038-A)
- b. **cendi kumɪtirikuli**
cendi kumun-tiri=kuli
spear 3NSG.PIERCE.R.IPFV-fight=3PL.SIT.R.IPFV
 ‘They (plural) were having a fight with spears.’ (JoN: IG3-026-A)

The OBLIQUE marker can also be used in reciprocal constructions, though this method is only used in 10% of reciprocal constructions in the corpus. Of this small percentage, three reciprocal examples (all with 1INCL.DU participants) only use OBLIQUE marking to encode reciprocity, as seen below in (855). In all other examples the OBLIQUE marker is accompanied by the reciprocal marker /-(k)an̄ki/ (856).¹⁴³

143. The reciprocal marker /-(k)an̄ki/ can also be optionally added to the construction in (855).

- (855) *kaŋgi*
kaŋki
 1INCL.DU.PRO
kumbumuŋgiŋuŋuckambu
kumbumun-ŋki-zuc~zuc=kambu
 1INCL.DU.PIERCE.R.IPFV-1INCL.DU.OBL-REDUP~poke=1INCL.DU.SIT.R.IPFV
 ‘Us two were poking each other.’ (PT: IG3-023-B)

- (856) *kaŋi* *ŋidiŋiŋpaŋukangija*
kadi *ŋidi-ŋiŋ-βadu-kaŋki=ja*
 1DU.PRO 1NSG.CAUSE.R.PFV-1DU.OBL-push=RECIP=PST
 ‘Us two pushed each other over.’ (PT: IG3-039-A)

This type of reciprocal construction is identical in pronominal argument marking to one type of reflexive construction formed with the OBLIQUE marker. In both the reflexive and reciprocal construction types, the OBLIQUE marker agrees in person and number features with the SUBJECT (also see description of reflexives and reciprocals constructed with OBLIQUE in §5.6.4.1) to signal that the agent/experiencer is also the patient/stimulus. The fact that the reciprocal construction solely marked with OBLIQUE is, therefore, ambiguous between reflexive and reciprocal interpretations may be why OBLIQUE marking on its own is so rarely used to encode reciprocity (there is no dedicated reflexive marker on the verb and so reflexives are usually encoded only through OBLIQUE-marking). The example pair below illustrates this ambiguity in (857a), which could have either a reflexive or reciprocal interpretation, whereas in (857b) the ambiguity is resolved via the inclusion of the RECIPROCAL marker /-(k)an̄ki/.

- (857) a. *niwiŋ* *ma* *ji* *piŋiwiŋcapa* *wunumbuk*
niwiŋ *ma=* *ji* *piŋi-wiŋ-cep=a* *wunumbuk*
 3DU.PRO MASC= DEM.3 3NSG.SWING.R.PFV-3DU.OBL-paint=PST white.ochre
ma *ji* *cuka*
ma= *cicuk=a*
 MASC= two=PST

‘Those two men painted themselves/each other with white ochre.’
 (PT: IG3-034-B)

- b. *niwiŋ* *ma* *ji*
niwiŋ *ma=* *ji*
 3DU.PRO MASC= DEM.3
kupiwiŋcepangikawin̄
kupi-wiŋ-cep-an̄ki=kawu-ŋ
 3NSG.SWING.R.IPFV-3DU.OBL-paint=RECIP=3.SIT.R.IPFV-DU.S.INTR

‘Those two men are painting each other up.’ (JoN: IG3-034-B)

As there are various ways of encoding reciprocity, we might expect that differences in the morphosyntax signal some kind of functional distinction. In Marrithiyel reciprocity is generally encoded by OBLIQUE-marking or a ‘special reciprocal’ marker /*(i)n*/ which is very similar in form and has similar characteristics to the reciprocal-marking function of the INTRANSITIVE DUAL SUBJECT marker in Marri Ngarr. Green (1989, pp. 121–2) claims that in Marrithiyel this special reciprocal marker cannot co-occur with INTRANSITIVE classifier stems and does not generally co-occur with 1INCL subjects. Functionally, while OBLIQUE-marking can be used for either simultaneous reciprocity (i.e. those reciprocal events in which each participant carries out the event at the same time) or sequential reciprocity, the special reciprocal marker is restricted to expressing events of simultaneous reciprocity only (Green 1989, pp. 120–1). A similar analysis of the functions of the various reciprocal constructions is given for Marri Ngarr in Preston (2012). The INTRANSITIVE DUAL SUBJECT marker /*n*/ is also analysed as a ‘special reciprocal’ by Preston (2012, pp. 87–88) (who analyses equivalent plural participant constructions as having a zero-marked PLURAL SUBJECT form), and this marker is restricted against co-occurring with 1INCL SUBJECTS. Preston (2012, pp. 88–91) also claims that this marker can only be used to encode events of simultaneous reciprocity, while OBLIQUE-marking can either mark simultaneous or sequential reciprocity. My analysis of Marri Ngarr reciprocal constructions differs from Preston (2012) firstly in that I find no reason to posit a ‘special reciprocal’ marker, as distinct from the INTRANSITIVE DUAL SUBJECT marker. I argue that having the same form, occurring in the same slot in the verb template, having the same function of marking DUAL SUBJECT and exhibiting the same inability to co-occur with 1INCL SUBJECTS is enough evidence to consider this the same marker. The use of the INTRANSITIVE form of the DUAL SUBJECT number marker in combination with TRANSITIVE classifier stems, as opposed to the TRANSITIVE DUAL SUBJECT marker /-*ŋki*/, also makes sense as a strategy to reduce the valence of the construction. Secondly, whilst in accordance with Preston (2012) I find that the form /-*n*/ cannot co-occur with INCL SUBJECTS, I do not find the same simultaneous/sequential distinction based on construction type. The constructions in (858) and (859), which contain the INTRANSITIVE DUAL SUBJECT marker and the reciprocal marker /-(*k*)*aŋki*/, were given in response to videos depicting two sequential reciprocal events, and were also offered for videos of simultaneous reciprocal events. This shows that reciprocal constructions involving the INTRANSITIVE DUAL SUBJECT marker can encode events of sequential reciprocity and indeed that there appears to be no difference in the morphosyntax between these two semantic types of reciprocal events.

(858) awu dilpi gudipicikaŋgawuŋ
 awu dilpi kuri-*n*-pici-kaŋki=kawu-*n*
 ANIM louse 3NSG.HANDS.R.IPFV-DU.S.INTR-delouse-RECIP=3.SIT.R.IPFV-DU.S.INTR

‘They (DUAL) are delousing each other.’

(JJ: RN5-003-B)

(859) pilippaḍukaŋgija
 puli-*n*-βadu-kaŋki=ja
 3NSG.BUMP.R.PFV-DU.S.INTR-push-RECIP=PST

‘They (DUAL) bumped into each other.’

(JJ: RN5-002-B)

Rather than distinguishing between different semantic types of reciprocals, the differences in the morphology of reciprocal constructions in Marri Ngarr appear to be at least partly concerned with restrictions on the type of pronominal marking that can co-occur with 1INCL SUBJECTS: the majority of reciprocal constructions (75%) are formed with /-(k)an̩ki/ and the INTRANSITIVE DUAL SUBJECT marker (or are unmarked in slot 2 if they involve plural participants), and none of these examples contain 1INCL.DU subjects. When reciprocal constructions are instead formed with OBLIQUE, just over half of these OBLIQUE-marked constructions have 1INCL.DU subjects. This suggests that one of the functions of reciprocal constructions containing the OBLIQUE marker is to encode the participant features when the INTRANSITIVE DUAL SUBJECT marker can't be used.¹⁴⁴ Compare the reciprocal construction with an EXCL participant in (860a) with the 1INCL.DU participant reciprocal construction in (860b).¹⁴⁵

- (860) a. guḍin̩melkan̩gigawin
 kudin-ŋ-mel-kan̩ki=kawu-ŋ
 3NSG.CAUSE.R.IPFV-DU.SUBJ.INTR-stare-RECIP=3.SIT.R.IPFV-DU.S.INTR
 ‘They (DUAL) are looking at each other.’ (JJ: RN5-001-A)
- b. kan̩gi kumbudingimetkambu
 kan̩ki kumbudin-ŋki-met=kambu
 1INCL.DU.PRO 1INCL.DU.CAUSE.R.IPFV-1INCL.DU.OBL-stare=1INCL.DU.SIT.R.IPFV
 ‘We sat there looking at each other.’ (PT: IG3-023-B)

To summarise, reciprocal constructions can be formed in four ways in Marri Ngarr and these different constructions are created using combinations of three distinct markers: (i) a dedicated reciprocal marker /-(k)an̩ki/ which marks the verb as denoting a reciprocal event, (ii) the INTRANSITIVE DUAL SUBJECT marker which marks the reciprocal participant as DUAL and decreases the valency of the verb, or the unmarked plural-participant equivalent, and (iii) OBLIQUE marking, which matches the SUBJECT marker on the classifier stem in person and number features to signal that each participant is both the agent/experiencer as well as the patient/stimulus. The default reciprocal construction involves a combination of the RECIPROCAL marker /-(k)an̩ki/ and the INTRANSITIVE DUAL SUBJECT marker or unmarked plural equivalent (861). This type of construction accounts for 75% of the data.

- (861) a. gurin̩jiwinan̩gigunin̩
 kuri-ŋ-jiwin-an̩ki=kun-ŋ
 3NSG.HANDS.R.IPFV-DU.S.INTR-jealous-RECIP=3NSG.GO.R.IPFV-DU.S.INTR
 ‘Those two are jealous of each other.’ (JJ: RN5-004-B)

144. It is, however, unclear what determines the OBLIQUE-marking on the remainder of these reciprocal constructions. It seems plausible that OBLIQUE-marking might occur in reciprocal constructions involving INTRANSITIVE classifier stems, as the INTRANSITIVE DUAL SUBJECT marker would be redundant in terms of reducing valence in this type of construction. However, there is no evidence for this in the corpus.

145. There is some speaker variation in the production of the lexical stem translatable as ‘stare’: /-mel-/ ~ /-met-/.

- b. **gurijiwinkangigunmel**
 kuri-jiwin-**kaŋki**=kunmel
 3NSG.HANDS.R.IPFV-jealous-**RECIP**=3PL.GO.R.IPFV

‘They are all jealous of each other.’ (JJ: RN5-004-B)

A small number of verbs denoting fighting events are unique in being able to form reciprocal constructions only with the *INTRANSITIVE DUAL SUBJECT* marker or unmarked plural equivalent (though inclusion of /-(k)an̄ki/ is optional) (862). Around 15% of reciprocal constructions are formed in this way.

- (862) **jeṽi cendi βiŋi pimiŋḍirija**
 jeṽi cendi βiŋi **pam-ŋ-tiri=ja**
 WEAP spear now 3NSG.PIERCE.R.PFV-DU.S.INTR-**fight**=PST

‘They were fighting with spears.’ (RM: 20080521-MC-Bush-games)

Alternatively reciprocal constructions can be formed simply with the inclusion of the *OBLIQUE* marker in slot 2; however this is method is only observed in three examples in the corpus.

- (863) **wiji kumburiŋimiwijikambu**
 wiji kumbur-**ŋki**-mi-wiji=kambu
 angry 1INCL.DU.HANDS.R.IPFV-**1INCL.DU.OBL**-eye-angry=1INCL.DU.SIT.R.IPFV

‘We were mad at each other.’ (PT: IG3-023-B)

A slightly more common construction involves the co-occurrence of the *OBLIQUE* marker and /-(k)an̄ki/ (864). One of these two constructions containing the *OBLIQUE* marker must be used to form reciprocal constructions which contain *1INCL.DU* participants; however *OBLIQUE*-marked reciprocal constructions can also have *EXCL* participants.

- (864) **nin jin mari**
 nin jin mari
 2SG.PRO 1SG.PRO LANG
ṽumburiŋijengikaŋiambu
 ṽumbur-**ŋki**-jenki-**kaŋki**=ṽambu
 1INCL.DU.HANDS.IRR-**1INCL.DU.OBL**-talk-**RECIP**=1INCL.DU.SIT.R.IPFV

‘You and me let’s talk to each other.’ (PT: IG3-034-B)

The distinction in morphology between the *INTRANSITIVE DUAL SUBJECT* marker reciprocal construction and *OBLIQUE*-marked reciprocal construction does not appear to map to a semantic distinction in reciprocal type (i.e. simultaneous vs sequential) but rather seems to be at least partly based in restrictions on the types of pronominal markers that can co-occur with *1INCL.DU* participants.

8.5 Summary

This chapter has provided descriptions of various types of verbal morphology which fall outside of the more fundamental topics in the verb discussed in chapters 5 - 7. In §8.1 I explored the characteristics of body part noun incorporation on the verb in Marri Ngarr. Body part incorporation is frequently observed in the corpus. The body part is syntactically incorporated and usually acts as part of the object in a transitive verb (§8.1.2). Body part incorporation in Marri Ngarr exhibits some characteristics common to incorporation cross-linguistically, such as productivity and doubling, while other features such as external modification and paraphrase are generally not observed (§8.1.3 and §8.1.4). A related construction, lexical stem formation, is also discussed in §8.1.5. The Marri Ngarr verb also makes use of *APPLICATIVE* markers (§8.2), albeit infrequently. These valence-increasing devices add an object to the argument structure of the predicate, resulting in a derived transitive verb. *APPLICATIVE* markers are thought to have evolved from incorporated body parts. Another element of verbal morphology is the *MALEFACTIVE* marker (§8.3). This marker can be used on the verb to signal that the speaker believes a referent in the clause to be adversely affected in some way by the event denoted by the predicate. In §8.4 I discussed the encoding of reciprocity on the verb. Various constructions are available with reciprocal meanings being marked by combinations of a dedicated *RECIPROCAL* marker, *OBLIQUE* marker and the *DUAL SUBJECT* marker. I considered the reasons for these different options, which appear to be at least partly associated with restrictions on the types of markers that can co-occur with *1INCL.DU* participants.

From here, I turn to consider features of the clause, including particular types of clausal constructions as well as the various particles and clitics which provide additional clausal information.

Chapter 9

Clause structure

9.1 Word Order

As discussed in preceding chapters, a lot of clausal information can be contained within the verb in Marri Ngarr. It might, therefore, be expected that relatively little grammatical information is encoded outside of the verb. Research such as Mithun (2017, pp. 1–2) proposes that because obligatory pronominal agreement on the verb can fill the function of expressing grammatical relations, languages which possess pronominal agreement marking could also be expected to exhibit flexible word order (whose role of encoding grammatical relations would be made redundant). Flexible word order is found for many languages of Australia (Mushin and B. Baker 2008; Nordlinger 2014, pp. 227–232), as well as cross-linguistically (D. L. Payne 1992) (though this includes many languages which do not exhibit pronominal agreement marking). While grammatical relations do not determine the order of constituents in flexible word order languages, word order is not necessarily unconstrained in these languages. Rather, it can be pragmatically motivated: ordering of constituents is determined by information structure (Mithun 1987; D. L. Payne 1992; Mushin and B. Baker 2008), (see word order analyses in individual Australian languages in Blake (1983) on Kalkatungu, Austin (2001) and Simpson and Mushin (2008) on Jiwari, and Simpson and Mushin (2008) on Warlpiri, Garrwa and Nyangumarta). For example in many languages new, prominent or contrastive information is placed in initial position (Simpson and Mushin 2008).

In this section I consider clausal word order in Marri Ngarr. A comprehensive analysis of word order in Marri Ngarr is beyond the scope of the thesis. This is due to the nature of the corpus, i.e. I did not have the opportunity to test word order in the field and my corpus is primarily comprised of elicited data. However, this data is still useful for demonstrating some basic word order characteristics and I also offer a case-study analysis of word order from one text exploring pragmatic motivations for word order.

Marri Ngarr marks clausal arguments pronominally on the verb (§3.2 and §5.3.1) and this is often the only method for realising arguments in the clause: the expression of arguments via an NP is entirely optional. When arguments are expressed through NPs, clausal word order is flexible, with either subject or object arguments able to appear pre- or post-verbally, and it is thus clear that it does not determine grammatical function. The examples below show that the subject (865) or object (866) can precede the verb, or alternately that the subject (867) or object (868) can follow the verb.

(865) *naŋ ma ji kadiŋɸaɖuni*
naŋ ma= ji kadi-ŋ-βadu=ni
 3SG.M.PRO MASC= DEM.3 3SG.FEET.IRR-1SG.O-push=FUT
 ‘That fella’s going to kick me.’ (PT: IG3-019-A)

(866) *naŋ βiŋi ŋadibacni*
naŋ βiŋi ŋadi-βac=ni
 3SG.M.PRO NOW 1SG.FEET.IRR-kick=FUT
 ‘I’m going to kick him now.’ (JN: IG3-013-A)

(867) *kaŋgidigurpni naŋ ji*
ka-ŋkidi-kurp=ni naŋ ji
 3SG.SWING.IRR-1DU.O-hit=FUT 3SG.M.PRO DEM.3
 ‘He’s going to hit us two fellas.’ (JN: IG3-007-A)

(868) *ŋurpitni naŋ*
ŋur-pit=ni naŋ
 1SG.HANDS.IRR-wash=FUT 3SG.M.PRO
 ‘I’ll wash him.’ (RK: 197207-MW-M02004362B)

The following examples show that five of the six possible clausal word orders are found in the corpus: SOV, SVO, VSO, OSV and OVS orders are demonstrated in (869) to (873) (in that order) below.

(869) *niwir ji kaŋgi ga*
niwir ji kaŋki =ka
 3PL.PRO DEM.3 1INCL.DU.PRO =TOP
ɸulniŋgimudija
puli-ni-ŋki-mudi=ja
 3NSG.BUMP.R.PFV-(U)AUG.S>MIN.O-1INCL.DU.O-see=PST
 ‘They saw you and me.’ (JoN: IG3-022-A)

(870) *kaŋgi ŋumbulimudija naŋ ji*
kaŋki ŋumbuli-mudi=ja naŋ ji
 1INCL.DU.PRO 1INCL.DU.BUMP.R.PFV-see=PST 3SG.M.PRO DEM.3
 ‘You and me saw him.’ (JN: IG3-009-B)

(875) a. warija gan ga amjenjimura
 warija kan =ka am-cencimur=a
 SEQ ANAPH.DEM =TOP 3SG.PIERCE.R.PFV-plan=PST

‘and that’s where he planned,’

b. warija ma aqima dejem wari ga bijelmbu
 warija ma= adi-ma dejem =wuri =ka bijelmbu
 SEQ MASC= 3SG.CAUSE.R.PFV-belly curlew =TOWARDS =TOP kookaburra
 niwijn gan ga warija.
 niwijn kan =ka warija
 3DU.PRO ANAPH.DEM =TOP SEQ

‘to meet with curlew and kookaburra, those two.’

c. miji wu niwir ga ambu tjawirβapa
 miji =wu niwir =ka ambu za-wir-βap=a
 PLANT =WU 3PL.PRO =TOP NEG 3SG.MOUTH.R.PFV-3PL.OBL-transfer=PST

‘He (sugar glider) didn’t give them the fruit’

d. naŋ ga mi gana atimijimbura
 naŋ =ka mi= kan adi-ni-mi-cimbur=a
 3SG.M.PRO =TOP PLANT= ANAPH.DEM 3SG.CAUSE.R.PFV-3SG.M.OBL-APPL-leave=PST
 warija
 warija
 SEQ

‘He (sugar glider) dropped the fruit on the ground’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

In another two clauses an NP occurs clause-initially and is immediately followed by a pause before the rest of the clause is uttered. In these examples the NP appears to function at least partially as a hesitation device while the speaker plans the remainder of the utterance (876) - (877).

(876) a. warija mi gan kuɟimburi warija naŋ ji
 warija mi= kan kuzi-cimburi warija naŋ ji
 SEQ PLANT= ANAPH.DEM 3SG.SIT.R-eat SEQ 3SG.M.PRO DEM.3
 ga
 =ka
 =TOP

‘and then he ate the fruit and then he,’

- b. mazi ga ɲana ɲija βiɲi
 mazi =ka ɲana ɲija βiɲi
 belly =TOP LIKE full now

‘(His) stomach was full.’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

- (877) a. naɲ ga warija
 naɲ =ka warija
 3SG.M.PRO =TOP SEQ

‘Then he,’

- b. nanji miji marimari ɲariβin
 nanci miji marimari ɲariβin
 THING PLANT palm.tree just

‘(Went to) a place with Cycad palms.’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

Considering the other main referent in this text, the entity translatable as ‘cycad nut’, it appears to form part of 37 verbal clauses and is expressed as an NP in 26 of these (and occurs another five times as an NP in a nominal predicate).¹⁵⁰ This is an obvious contrast to the few clauses in which the story’s protagonist is expressed via an NP. The relatively high count of NPs referring to the entity ‘cycad nut’ is due largely to the referent-tracking function of the nominal classifier (also see §4.2.3): the majority of NPs referring to ‘cycad nut’ are comprised of the PLANT nominal classifier /*miji*/ which continuously occurs through the text in clauses involving this referent (after its first mention using the classifier and specific noun combination /*mi=mari*/), and acts like a place-holder in these clauses to indicate that the same referent is being maintained. This argument’s features of inanimacy and non-agentivity may lend themselves to the use of this referent-tracking device. This element occurs in 18 verbal clauses in the text and in 17 instances it is positioned pre-verbally, as in (878), clearly showing a consistent pre-verbal position for this referent-tracking function.

- (878) miji ambu ɲari nimin amgupa
 miji ambu ɲari nimin am-ɣup=a
 PLANT NEG INCH STILL 3SG.PIERCE.R.PFV-ripen=PST

‘The (cycads) still weren’t ripe.’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

150. Sometimes determination of the presence of the ‘cycad nut’ as an argument of the predicate is based on translation; as this referent (presumably) functions as the 3SG object in many clauses, it can be completely unrealised morphosyntactically.

This referent occurs as a specific noun (in a classifier-nominal construction) /*mi=mari*/ only three times: the first instance is in a (non-verbal) clause in the introduction where the totem plants and animals are first introduced, and the second is when the story narration begins and this referent is again introduced (879a). The third time this specific noun is used is after six of the preceding seven clauses contain the referent as the object and repeatedly describe events of ‘hitting’ and ‘smashing’ (879b) - (879g), with two of these preceding clauses also including the PLANT classifier. Following this, the clause in (879h) describes a different event involving the same referent and here the specific noun is used. In both of the verbal clauses involving /*mi=mari*/, the specific noun NP occurs post-verbally, but the PLANT classifier is also present pre-verbally. In both of these constructions the specific noun is an afterthought, used ostensibly to clarify/reinforce the specific referent being classified by PLANT when the speaker deems it necessary for comprehension. This post-verbal position for NPs functioning as clarification devices was also seen for /*a=papa*/ above.

- (879) a. warija mi kaɣuɣuɬa mi mari
 warija mi= kar-zuc~zuc=a mi= mari
 SEQ PLANT= 3SG.SWING.R.IPFV-REDUP~pick.up.PL=PST PLANT= cycad
 warija
 warija
 SEQ

‘He started picking cycads.’

- b. miji βiŋi kinβijazakuzija
 miji βiŋi kin-pi-zaɬ=kuzi=ja
 PLANT now 3SG.SWING.R.IPFV-head-hit.PL=3SG.SIT.R.IPFV=PST

‘Then he started trying to smash them open.’

- c. aa kuzadeɣa βiŋi
 aa kuzi-zaɬ~zaɬ=a βiŋi
 oh 3SG.SIT.R-REDUP~hit.PL=PST now

‘He kept on hitting them.’

- d. aa warija ŋi βiŋi kuzija
 aa warija ŋi βiŋi kuzi=ja
 oh SEQ ? now 3SG.SIT.R=PST

‘He kept doing it.’

- e. kuradaja warija
 kuzi-zaɬ~zaɬ=ja warija
 3SG.SIT.R-REDUP~hit.PL=PST SEQ

‘He kept on hitting them.’

- f. warija, warija miji βiŋi kɪŋpekuzɟja
 warija warija miji βiŋi kɪŋ-pek=kuzi=ja
 SEQ SEQ PLANT now 3SG.SWING.R.IPFV-smash=3SG.SIT.R.IPFV=PST

‘He kept on hitting them until he smashed the fruit.’

- g. kɪŋpekuzɟja warija
 kɪŋ-pek=kuzi=ja warija
 3SG.SWING.R.IPFV-smash=3SG.SIT.R.IPFV=PST SEQ

‘He kept on smashing them.’

- h. warija miji βiŋi adiɟibuta, mi mari
 warija miji βiŋi adi-ɟibut=a mi= mari
 SEQ PLANT now 3SG.CAUSE.R.PFV-submerge=PST PLANT= cycad
 wu
 =wu
 wu

‘Then he put the cycads in the water.’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

This referent is also expressed a handful of times by the combination of the bound classifier and another clausal element, either a demonstrative, a nominal, or a verb. Usually these combinations occur pre-verbally; however the combination with the anaphoric demonstrative shows more variation in position, occurring both pre-verbally (880) and post-verbally (881). This may be because the use of an anaphoric element assumes that the referent is already identified (in each use of this construction, the referent has been expressed as an NP one or two clauses prior), thus it does not need to be positioned pre-verbally where new information tends to go, but can be found either side of the verb.

- (880) warija mi gan kujimburi warija naŋ ji
 warija mi= kan kuzi-cimburi warija naŋ ji
 SEQ PLANT= ANAPH.DEM 3SG.SIT.R-eat SEQ 3SG.M.PRO DEM.3
 ga,
 =ka
 =TOP

‘and then he ate the fruit and then he..’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

- (881) amata mi gan wu
 am-at=a mi= kan =wu
 3SG.PIERCE.R.PFV-pick.up=PST PLANT= ANAPH.DEM =WU

‘He picked up that fruit.’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

The data from this text demonstrates the high levels of NP omission that can occur in clauses: out of 82 verbal clauses, 44 clauses did not contain any NPs expressing core arguments. From a functional perspective, when a referent has been recently mentioned or can be inferred from pronominal agreement marking and/or from context, it is not necessary for comprehension for it to be expressed as an NP. When an NP is expressed, its position relative to the verb depends on its pragmatic function: new information and referent-tracking elements are generally given pre-verbally, while NPs which clarify or reinforce a referent are generally positioned post-verbally. As the protagonist of the story generally functioned as the agentive subject of the clause, it was consistently encoded by the SUBJECT-marking prefix on the classifier stem, which may help to explain why it was expressed so infrequently as an NP. In contrast, ‘cycad nuts’ usually functioned as the 3SG object, a category which never gets pronominally marked. Therefore, the referent-tracking function of the nominal classifier was regularly employed to express this referent to ensure comprehension.

9.2 Complex sentences

Mithun (1984a) notes that the presence of subordinate clauses in some polysynthetic languages is relatively rare compared with their occurrence in isolating languages such as English. Polysynthetic languages are instead likely to use other strategies such as juxtaposed independent clauses to express the equivalent of what would be done syntactically via subordination in English (Mithun 1984a). Despite this infrequency of subordination observed in polysynthetic languages cross-linguistically, in some Australian languages considered polysynthetic several subordination strategies are found. A range of subordinate clause types is found in Dalabon (Evans 2006), and Nordlinger and Saulwick (2002) find that even nonfinite subordinate clause types (a clause type which M. C. Baker (1996, p. 472) claims cannot exist in polysynthetic languages) are possible in Rembarrnga. Considering Daly languages, Nordlinger (2017, p. 802) observes that the Western and Southern Daly languages, which have more complex verbal morphology, have very little subordination and lack nonfinite subordination, while the Eastern and Northern Daly languages, which contain relatively less verbal complexity, possess nonfinite subordination constructions. In accordance with this pattern, very little evidence of subordination is found in the Marri Ngarr corpus. Instead, it is common to express via juxtaposition ideas which would usually be expressed via subordination in English. This is demonstrated in (882) to (884) below, which all contain a sequence of two finite verbs.

(882)	ṅidinwidimelkaṅi [ṅidin-widi-mel=kaṅi 1SG.CAUSE.R.IPFV-3DU.O-stare=1SG.SIT.R.IPFV	niwiṅ ṅiṅji awu niwiṅ ṅiṅci] [awu 3DU.PRO one ANIM
	kuriṅṅiḍapkuṅiṅ kuri-ṅki-zaṅ=kun-ṅ 3NSG.HANDS.R.IPFV-DU.S=spear.PL=3NSG.GO.R.IPFV-DU.S.INTR	aṅaṅmiḍ a=ṅaṅmiḍ] ANIM=fish

‘I’m watching two men spearing fish. [Lit: I’m watching those two, they are spearing fish.]’
 (HK: 1972-MW-M02004365A)

- (883) jin ɲulɪɲmudija kinijeɲa
 [jin ɲuli-ɲ-mudi=ja] [kinijeɲ=a]
 1SG.PRO 1SG.BUMP.R.PFV-2SG.O-see=PST 2SG.STAND.R=PST

‘I saw you standing up there. [Lit: I saw you, you were standing.]’
 (PT: IG3-019-B)

- (884) niwɪɲ ji ga mazi kumungatandi
 [niwɪɲ ji =ka mazi kumun-ɲki-at=andi]
 3DU.PRO DEM.3 =TOP belly 3NSG.PIERCE.R.IPFV-DU.S-pick.up=APPR
 kuɲuniŋgurpandi
 [kuɲ-ni-ɲ-kurp=andi]
 3NSG.SWING.R.IPFV-(U)AUG.S>MIN.O-1SG.O-hit=APPR

‘Those two fellas might want to hit me. [Lit: Those two might want it, those two might hit me.]’
 (JN: IG3-014-A)

Only a handful of examples of subordinate clauses are found in the corpus. Some of these are introduced by the locative preposition /na/ ~ /ni/ (§3.1.8). In (885) - (886), the preposition follows the matrix clause and immediately precedes the subordinate clause, functioning as a subordinator.

- (885) jin ga ɲanipira naɲɲi na zuzut jin ga
 jin =ka ɲani-pir=a naɲci [na zuzut jin =ka
 1SG.PRO =TOP 1SG.GO.R.PFV-leave=PST THING LOC lung 1SG.PRO =TOP
 wiɲɲen βiɲi
 wiɲɲen βiɲi]
 bad now

‘I stopped (smoking) because my lung is bad.’ (ET: 20150714-JM)

- (886) ɲawu zamin ni niɲ ga warin wariwatni
 ɲawu =zamin [ni niɲ =ka warin wari-wat=ni
 1SG.SIT.IRR =AWAY LOC 2SG.PRO =TOP around 2SG.GO.IRR-hunt=FUT
 awu
 awu]
 ANIM

‘I’ll stay here while you go around hunting everywhere.’
 (CM: 1982-Tree-Dreaming)

This preposition is also found functioning as a relative clause marker: in (887) - (888) /na/ precedes a clause which modifies a location referred to by the anaphoric demonstrative.

- (887) kana wuji ɲimimbija wu na ʔandijen
 kan wuji ɲimi-mbi=ja =wu [na ʔandijen
 ANAPH.DEM PLACE 1SG.SAY/DO.R.PFV-2SG.OBL=PST =WU LOC water.python
 na miniwi kiniwiʔuk wuri
 na miniwi kini-pi-cuk =wuri]
 LOC canegrass 3SG.PASS.R.IPFV-head-lie =TOWARDS

‘That’s the place I was telling you about, where the Water Python is in the cane grass.’
 (CM: 1982-Tree-Dreaming)

- (888) na diwara kaŋ kana kimajukuzija
 [na diwara kaŋ] kan ki-ma-cuk=kuzi=ja
 LOC tamarind 3SG.STAND.R ANAPH.DEM 3SG.MOUTH.R.IPFV-belly-lie=3SG.SIT.R.IPFV=PST

‘Where the tamarind tree stands, that’s where he was resting.’
 (JJ: 20080811-MC-WaterRat)

The marking of a subordinate clause via a preposition is a subordination strategy also found in Murrinhpatha (Nordlinger 2017, p. 802). In Marrithiyel a similar element /ni/ is found. In some examples it appears to function as a preposition (889) (though this function is not discussed in Green (1989)) and is elsewhere analysed as a relative pronoun (890) (Green 1989, p. 301).¹⁵¹

- (889) guwa-wul-a ni nidin naŋ
 3SG.STAND.R-return-PST NI country 3SG.M.PRO

‘Captain Cook returned to his own country.’
 (Marrithiyel: Green 1989: 394, some glosses changed)

- (890) e ɲidin-a Meli ni muku guŋa-ini-pir-a
 and 1SG.SEE.R-PST Meli NI woman 1SG.STAND-3SG.G-throw-PST

‘And I saw Meli, to whom I have given a wife.’
 (Marrithiyel: Green 1989: 301)

A final example of subordination is a conditional construction shown in (891). Here we see two separate finite clauses, with the SOURCE enclitic /=ɲanan/ attaching to the verb of the matrix clause (protasis). This construction has a future conditional interpretation.

151. An identical form appears on the verb in locative verbs in Marrithiyel (Green 1989, pp. 301–307).

- (891) *aŋgurpni* *ŋanan* *ŋawe* *jin* *niŋ* *ga*
 [aŋ-kurp=ni =ŋanan ŋawe jin] [niŋ =ka
 2SG.SWING.IRR-hit=FUT =SOURCE brother 1SG.PRO 2SG.PRO =TOP
ŋaŋgurpni *ŋali*
 ŋa-ŋ-kurp=ni ŋali]
 1SG.SWING.IRR-2SG.O-hit=FUT REP

‘If you hit my brother, I’ll hit you too.’ (HK: 1972-MW-M02004364A)

In Marrithiyel, future conditionals are rendered using a formally identical and functionally similar element, which is incorporated into the verb of the protasis, prior to the future tense marker (Green 1989, p. 154).

- (892) *gagi-iŋ-micuk-ŋanan-wa,* *ŋargiŋ-ni-maŋti-mbel-ø-wa*
 3SG.SWING.IRR-2SG.O-make.lost-SOURCE-FUT 1.SIT.IRR-NI-neck-2SG.PURP-PL-FUT

‘If you (SG) get lost (literally, ‘if it makes you lost’) we (EXC, PL) will wait for you.’
 Marrithiyel: (Green 1989, 154, some glosses changed)

While conditional interpretations are extremely rare in the corpus, the example in (893) shows that a similar meaning can be constructed with the use of the APPREHENSIVE marker /=*andi*/ (when the apodosis expresses an event which has some sort of negative implication).

- (893) *jin* *ŋiŋerandi* *ji* *niwiŋ*
jin *ŋiŋer=andi* *ji* *niwiŋ*
 1SG.PRO 1SG.TRAVEL.R=APPR DEM.3 3DU.PRO
gulniŋmudandi
kul-ni-ŋ-mudi=andi
 3SG.BUMP.R.IPFV-(U)AUG.S>MIN.O-1SG.O-see=APPR

‘If I go there, those two might see me. [Lit: I might go there, those two might see me.]’
 (JN: IG3-013-A)

9.3 Copula constructions

SIT, STAND, LIE and GO can function as copulas in existential constructions. In these constructions they express the existence of an entity (either animate or inanimate) or its presence in a location. The choice of classifier stem in this type of construction is semantic (see §5.4.1 for detailed discussion of the semantics of these classifier stems), based on the shape of the entity and/or the placement of the entity in relation to the ground. An existential clause involving a leaf for example, which is positioned flat on the ground with no height to speak of uses the LIE classifier stem (894), while an existential clause involving a can of beer, which is tall, thin and perpendicular to the ground uses STAND (895). The use of the dynamic simple verb GO in (897) may reflect the movement of the bird in the sky.

- (894) annimbir guṅguwernim naṅji maṅir
 annimbir kuṅkiwer=nim naṅci maṅir
 three 3DU.LIE.R=AUG THING leaf
 ‘There are three leaves lying there.’ (ET: 20150627-JM-03)
- (895) wudi niṅji ari kwaṅ
 wudi niṅci ari kwaṅ
 WATER one DEM.1 3SG.STAND.R
 ‘There’s one beer here.’ (PT: IG3-035-A)
- (896) wuji warija zamin kuṅi
 wuji warija =zamin kuṅi
 PLACE SEQ =AWAY 3SG.SIT.R
 He’s still there.’ (CM: 1982-Tree-Dreaming)
- (897) awu ji wajini kwani
 awu ji wajini kwani
 ANIM DEM.3 on.top 3SG.GO.R
 ‘There’s a bird up in the sky there.’ (JN: IG3-008-B)

The use of verbs for ‘sit’, ‘stand’ and ‘lie’ in existential constructions is common across languages (Newman 2002, pp. 7–11). Reid (2002, pp. 246–248) also describes this type of copula construction in Ngan’gitjemerri noting that entities whose breadth is more significant than their height co-occur with SIT in these constructions (e.g. rivers, canoes, rocks), while entities which have some kind of ‘legs’ are usually found with STAND (e.g. centipedes, cars, fridges), though lizards and crocodiles, whilst having legs, are usually in contact with the ground and co-occur with LIE. In the Marri Ngarr corpus existential constructions with human subjects consistently take SIT, e.g. (86) and this is also true in Ngan’gitjemerri (Reid 2002, pp. 247–248).

More rarely, the SIT and GO classifier stems occur in copula constructions where the classifier stem functions as the predicate and takes a predicative complement which immediately precedes it (898) - (901). Sometimes the predicative complement in these clauses can function alone as a predicate in nominal predicate constructions (e.g. (905a) in §9.4 below).

(898) muli ga ϕ ijim kuzi
 muli =ka β ijim kuzi
 FEM =TOP alive 3SG.SIT.R
 ‘She’s (still) alive.’ (HK: 1972-MW-M02004364A)

(899) nij ga kati kandi
 nij =ka γ ati kandi
 2SG.PRO =TOP good 2SG.SIT.R
 ‘Are you well?’ (ET: 20150627-JM-01)

(900) warija jenijena wu me gunmela
 warija jenijen=a =wu ma= kunmel=a
 SEQ before=PST =WU MASC= 3PL.GO.R=PST
 ‘Before they were human like us.’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

(901) η ani wij η en η in
 η ani wij η en η in
 1SG.PRO body bad
 ‘I’m sick.’ (JoN: IG3-021-A)

The SAY/DO classifier stem occasionally functions as a copula in clauses where it co-occurs with verbs borrowed from English (902) - (903).

(902) ambu θ ink kamugani je purkpurkni
 ambu $\ddot{\theta}$ ink kamu=kani ja= purkpurk=ni
 NEG think 3SG.SAY/DO.R.IPFV=3SG.GO.R.IPFV CHILD= child=DAT
 ‘He’s not thinking about his children.’ (MJo: 20190212-JM)

(903) wara ϕ indi β indi β i η i stat kamuja
 warija β indi β indi β i η i stat kamu=ja
 SEQ old.man now start 3SG.SAY/DO.R.IPFV=PST
 ‘Then the old people started (fighting).’
 (RM: 20080521-MC-Bush-Games)

9.4 Nominal predication

Nominal predicates can be formed in Marri Ngarr by simply using the nominal in bare form. This type of construction is generally used for attributive and equative clauses. One such construction is illustrated in (904a) where a personal pronoun expresses the subject argument and /*βindiβindi*/ acts as a nominal predicate (attachment of the MASC nominal classifier to predicates is discussed in §4.2.4). This construction is contrasted with (904b) where the same form functions as an NP object of the predicate.

- (904) a. *niŋ ga ma βindiwindi*
niŋ =ka ma= βindiβindi
 2SG.PRO =TOP MASC= **old.man**
 ‘You’re an old man.’ (JoN: IG3-034-A)
- b. *je jipezi ŋarin ariðapa maβindiβindi*
je= jipezi =ŋarin ari-tap=a ma=βindiβindi
 CHILD= little =INSTR 3SG.HANDS.R.PFV-touch=PST MASC=**old.man**
 ‘The baby touched the old man.’ (HK: 1972-MW-M02004364A)

The nominal /*wiŋcen*/ acts as a predicate in (905a), cf. (905b) where the same form modifies the head of an NP. An alternate analysis of (905a) where /*wiŋcen*/ forms part of an NP with the NP elements which precede it is ruled out as its position would be anomalous in that it is preceded by the demonstrative (§4.1.1).

- (905) a. *miji ku wiŋjen ŋinijaβuc*
miji ku wiŋcen ŋinija-βuc
 PLANT DEM.2 **bad** 2SG.STAND.CMPLX.IRR-discard
 ‘That food is bad, throw it out.’ (JN: IG3-012-B)
- b. *awadiwaŋ awiŋjen*
a=wadiwaŋ a=wiŋcen
 ANIM=kangaroo ANIM=**bad**
 ‘bad kangaroo (e.g. too small to eat)’ (HK: 197207-MW-M02004362B)

Attributive nominal predicates can be formed without overt subjects. In this type of construction the MASC classifier attaches to an NP (906) - (907) but the construction is interpreted as a full clause rather than an NP (also see §4.2.4).

- (906) *manimili*
ma=nimili
 MASC=blind
 ‘He’s blind.’ (PT: IG3-015-A)

(907) mapuṅidit wiṅjen
 ma=puṅidit wiṅcen
 MASC=head bad

‘He’s crazy.’

(PT: IG3-015-A)

A handful of constructions in the corpus have an intermediate status between nominals and verbs and are similar in structure to the ‘nerbs’ of Walsh (1996b), which are verb-like in their ability to take pronominal marking and incorporated body parts, but noun-like in that they can take nominal classifiers, case-marking and can head a nominal expression. In Marri Ngarr these constructions can take bound classifiers, OBJECT or OBLIQUE-marking and incorporated body parts in (908) - (909). The constructions in (909) are also introduced by a preposition, suggesting they are nominal constructions or relative clauses.

(908) a. mamuṅariṅmi niṅwu kandiḅudiṅ
 ma=mūṅar-ṅ-mi niṅ=wu kandi-ḅudiṅ
 MASC=sleepy-2SG.O-eye 2SG.PRO=WU 2SG.SIT-sleepy

‘Are you sleepy?’

(PT: IG3-035-B)

b. mamuṅarindirmi ner wu kindilipudiṅ
 ma=mūṅar-ndir-mi ner =wu kindili-ḅudiṅ
 MASC=sleepy-2PL.O-eye 2PL.PRO =WU 2PL.SIT.R-sleepy

‘Are you (PLURAL) sleepy?’

(PT: IG3-035-B)

(909) a. ner ḡindili ni maṅṅindir
 ner kindili ni ma=ṅiṅci-ndir
 2PL.PRO 2PL.SIT.R LOC MASC=one-2PL.OBL

‘You (PLURAL) are sitting on your own.’

(PT: IG3-034-A)

b. niwiṅ kawuṅ ni maṅṅiwiṅ
 niwiṅ kawu-ṅ ni ma=ṅiṅci-wiṅ
 3DU.PRO 3.SIT.R-DU.S.INTR LOC MASC=one-3DU.OBL

‘Those two are sitting on their own.’

(PT: IG3-034-A)

9.5 Particles and clitics

The following sections provide an overview of the various particles and clitics found in the corpus. The particles were distinguished from other parts of speech and from clitics in §3.1.11. There are several types of clitics in Marri Ngarr and some of these (e.g. bound

nominal classifiers and TAM markers) are discussed in the relevant sections elsewhere in the thesis. Other clitics are described here. The particles and clitics identified in the corpus fill a wide range of functions in the clause such as markers of various modal features (910) - (911), directional markers (912), negation markers (913) and various other functions.

- (910) wambu meriŋ βiŋi zamin wuβirica
wambu **meriŋ** βiŋi =zamin ku-βiric=a
red.soil.country **MIGHT** now =AWAY 3SG.SIT.R-climb=PST
‘Maybe he went up to the red soil country.’
(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

- (911) niŋ kimini ŋiniβera
niŋ **kimini** ŋiniwer=a
2SG.PRO **DEON** 2SG.LIE.IRR=PST
‘You should lie down.’ (JN: IG3-012-A)

- (912) naŋŋi puja wuri tʰaŋiŋβap
naŋci puja =**wuri** za-ŋin-βap
THING string **TOWARDS** 2SG.MOUTH.IRR-1SG.OBL-transfer
‘Give me some string’ (RK: 1972-MW-M02004365A)

- (913) jin ambu kariŋinjenŋa θatma
jin **ambu** kar-ŋin-jenki-ŋa tʰatma
1SG.PRO **NEG** 3SG.HANDS.R.IPFV-1SG.OBL-talk-MAL straight
‘I can’t think straight.’ (PT: IG3-031-A)

9.5.1 Directional clitics

A series of three directional enclitics, /=wuri/, /=za(min)/ and /=ŋanan/, are commonly found in the corpus. They primarily function as directional markers, i.e. they encode movement towards (/=wuri/) or away (/=za(min)/) from the speaker, or mark the source (/=ŋanan/) from which movement occurs. While formally related elements are found in Marrithiyel and generally analysed as case-markers (Green 1989, pp. 48–64),¹⁵² the Marri Ngarr equivalents have freer distributions, attaching to nominals (914), verbs (915) and adverbs (916).

152. However, Green (1989, p. 63) acknowledges that these forms can also attach to other parts of speech.

- (914) **niŋ ga cuja ɸindiza ginina**
 niŋ =ka cuja βindi=za kinin=a
 2SG.PRO =TOP yesterday WHERE=AWAY 2SG.GO.R=PST
 ‘Where did you go yesterday?’ (JoN: IG3-019-B)

- (915) **tɬaŋanbap wuri**
 za-ŋin-βap =wuri
 2SG.MOUTH.IRR-1SG.OBL-transfer =TOWARDS
 ‘Give me that.’ (JN: IG3-009-B)

- (916) **naŋ ji wuɬaŋanan ɸajera**
 naŋ ji wuɬa=ŋanan pa-jer=a
 3SG.M.PRO DEM.3 already=SOURCE 3SG.PUT.R.PFV-pull=PST
 ‘He’s already pulled it.’ (JN: IG3-010-A)

As well as these basic directional meanings, /=*za(min)*/ and /=*ŋanan*/ exhibit temporal metaphorical extensions, discussed in §9.5.1.2 - §9.5.1.3. This use of directional markers to encode temporal meanings is reported for various Australian languages (Dixon 2002, p. 143).

9.5.1.1 TOWARDS

The enclitic /=*wuri*/ primarily encodes movement towards the speaker and is found in many constructions which function as requests. It can attach to a nominal to denote the movement of an entity towards the speaker, as in (917) and (918),¹⁵³ while attachment to the demonstrative /*ar(i)*/, which refers to entities close to the speaker (§4.5), is translated as ‘this way’ in English (919). /=*wuri*/ can alternately attach to the verb, often one of physical movement as in (920) and (921), but also of speech (922). In (923) it is associated with a verb of (visual) orientation while attaching to an adverb.

- (917) **maŋguwuri**
 maŋku=wuri
 cup=TOWARDS
 ‘Pass me the cup.’ (RK: 197207-MW-M02004363A)

153. In (918), the speaker is interpreted as being close in location to the 3SG oblique argument.

- (918) cibeka wuri aminet nanj ji
 ciβaki =wuri am-in-et nanj ji
 tobacco =TOWARDS 2SG.PIERCE.IRR-3SG.M.OBL-pick.up 3SG.M.PRO DEM.3
 ‘Bring him some tobacco.’ (JN: IG3-013-B)
- (919) ariwuri ηujerni
 ari=wuri ηu-jer=ni
 DEM.1=TOWARDS 1SG.PUT.IRR-pull=FUT
 ‘I’m going to pull it this way.’ (JN: IG3-013-A)
- (920) ner nanmelwuri
 ner nanmel=wuri
 2PL.PRO 2PL.GO.IRR=TOWARDS
 ‘You all come here.’ (HK: 1972-MW-M02004364A)
- (921) ηinijeηinpir wuri
 ηinije-ηin-pir =wuri
 2SG.STAND.CMPLX.IRR-1SG.OBL-throw =TOWARDS
 ‘Throw it to me.’ (PT: IG3-023-A)
- (922) mamiga ηinimuηin wuri ka
 mamika ηinim-ηin =wuri =ka
 go.ahead 2SG.SAY/DO.IRR-1SG.OBL =TOWARDS =TOP
 ‘You tell me then.’ (HK: 197207-MW-M02004363A)
- (923) ambu ηambuηibut ariwu wuqi lijik kawinbicmi
 ambu ηambu-jibut ari=wu wudi lijik kawu-η-bicmi
 NEG 1INCL.DU.SIT.IRR-swim DEM.1=WU water no 3.SIT.R-DU.S.INTR-watch
 βiηi wuri
 βiηi =wuri
 now =TOWARDS
 ‘We can’t swim in this water, they’re watching us.’
 (CM: 1982-Tree-Dreaming)

9.5.1.2 AWAY

The enclitic /=za/ ~/=zamin/¹⁵⁴ signals movement away from the speaker. Similar to /=wuri/ (§9.5.1.1) it can be associated with verbs of physical movement as in (929) - (931) and of (visual) orientation (932).

- (929) ϕ indiza kininmel
 β indi=za kininmel
 WHERE=AWAY 2PL.GO.R

‘Where are you fellas going?’

(JN: IG3-011-A)

- (930) na penḡi tamin wanibija ḡaḡmiru
 na penḡi =zamin wani-bi=ja ḡaḡmiru
 LOC knee =AWAY 3SG.GO.R.PFV-move=PST tin

‘The tin fell off my knee.’

(HK: 1972-MW-M02004364B)

- (931) tadiḡi aḡaḡmiḡ arzuzup t^hamin
 zaḡiḡi a=ḡaḡmiḡ ar-zup~zup =zamin
 skin ANIM=fish 2SG.HANDS.IRR-REDUP~skin =AWAY

‘You scrape the fish scales off.’

(HK: 1972-MW-M02004364A)

- (932) naḡ ji kaḡinibicmiza
 naḡ ji kaḡi-ni-bicmi=za
 3SG.M.PRO DEM.3 1SG.SIT.R-3SG.M.OBL-watch=AWAY

‘I’m sitting down staring at him.’

(JN: IG3-012-A)

The semantic contrast between /za(min)/ and /=wuri/ is demonstrated in the example pairs in (933) and (934):

154. It is unclear whether there is a functional distinction between the two variants. /min/ may be related to /-men-/ , the incorporated form of the body part noun ‘arm’, which has a metaphorical extension of ‘path’ or ‘way’.

- (i) ḡanimengata
 ḡani-men-yat=a
 1SG.FEET.R.PFV-arm-pass=PST
 ‘I turned off the path.’

(JoN: IG3-024-A2)

(937) kaŋiʒa ŋunni jin wu
 kaŋi=ʒa ŋun=ni jin =wu
 1SG.SIT.R=AWAY 1SG.GO.IRR=FUT 1SG.PRO =WU

‘That’s where I’m going to be (i.e. in the trees).’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

(938) kawuŋ aʒamin naŋʒi ŋumbuwaθat
 kawu-ŋ a=ʒamin naŋci ŋumbu-wa-ʒat
 3.SIT.R-DU.S.INTR ANIM=AWAY THING 1INCL.DU.MOUTH.IRR-put.down
 ŋambuni
 ŋambu=ni
 1INCL.DU.SIT.IRR=FUT

‘They’re still there (and they say) “we’re going to leave our things here”.’
 (CM: 1982-Tree-Dreaming)

/=ʒa(min)/ is also used in combination with the adverb /warijali/, resulting in a temporal durative/habitual interpretation (939).

(939) warijali ʒamen kulimijerikwani muku
 warijali =ʒamin kuli-mijeri=kwani muku
 always =AWAY 3SG.BUMP.R.IPFV-think=3SG.GO.R.IPFV woman

‘He’s always thinking about women.’ (PT: IG3-024-A2)

9.5.1.3 SOURCE

The enclitic /=ŋanan/ encodes a meaning associated with movement away; however in contrast to /=ʒa(min)/ which marks movement away from the speaker (§9.5.1.2), /=ŋanan/ emphasizes the source from which the movement occurs. Examples of this reading are given in (940) and (941) (cf. (942)). /=ŋanan/ can also be used for a causal reading, as in (943) where it attaches to a nominal which is deemed to be the cause of the situation denoted by the predicate.

(940) arijengat ŋanan ga
 arijenkat =ŋanan =ka
 Arrijenggat =SOURCE =TOP

‘He went from Arrijenggat.’ (JJ: 20080811-MC-WaterRat)

- b. **mundak kinina**
mundak kinin=a
previously 2SG.GO.R=PST

‘You went before.’

(JN: IG3-006-A)

Green (1989, p. 60) describes a distinct temporal ‘sequencing’ use of the related form /=*ɲanan*/ in Marrithiyel where it marks ‘the event or time from which another event proceeds’, as illustrated in (946) below.

- (946) **a-wakir-ɲanan girɪpa-wulthari-ø-ja gan**
 ANIM-fish-SOURCE 1NSG.STAND.R-return-PL-PST here

‘After (an event concerned with) fish, we(exc,pl) returned here.’

Marrithiyel (Green 1989: 60, some glosses changed)

A comparable example is found in Marri Ngarr, given in (947). While /=*ɲanan*/ is interpreted as operating in its directional sense here (i.e. ‘from that place’), it is clear to see how the sequencing function (i.e. ‘after that/from that time’, with the time being linked to an event that occurred at that place) could develop from this sense.

- (947) **kanɲanan wuji ni arijengat**
kan=ɲanan wuji =ni arijenkat
 ANAPH.DEM=SOURCE PLACE =DAT Arrijenggat

‘From there he went to (a place called) Arrijenggat.’

(JJ: 20080811-MC-WaterRat)

9.5.2 EPISTEMICS

The element /=*merɪj*/ is observed modifying verbs or combining with interrogative pronouns and is a marker of epistemic possibility. When it modifies verbs it expresses uncertainty about the likelihood of an event taking place. This is demonstrated in the contrasting examples in (948) and (949).

- (948) a. **wacki merɪj tɔaŋaβapni**
wacki merɪj zɑ-ɲin-βap=ni
 later MIGHT 2SG.MOUTH.IRR-1SG.OBL-transfer=FUT

‘Later you might give it to me.’

(JN: IG3-009-B)

- (952) a. ja ϕ indi meri η kwani majiwu
 ja β indi meri η kwani ma=ji=wu
 hey **WHERE MIGHT** 3SG.GO.R MASC=DEM.3=WU
 ‘I don’t know where he’s going.’ (JoN: IG3-021-B)
- b. na η ji ga ϕ indiza kani
 na η ji =ka β indi=za kani
 3SG.M.PRO DEM.3 =TOP **WHERE=AWAY** 3SG.GO.R
 ‘Where’s he going?’ (JoN: IG3-019-B)

Related to the epistemic element /*meri η* /, the particle /*ap*/ also appears to have a function associated with uncertainty, though its exact role is currently unclear. It occurs in very few examples in the corpus, always in initial position in the clause and in combination with the epistemic particle /*meri η* /. In Ngan’gitjemerri, a related particle /*ep*/ is positioned prior to the clause to indicate that the speaker is guessing (Reid 1990, p. 362).

- (953) ap nici η ani meri η ga kabani
 ap nici η ani meri η =ka ka-ba=ni
 AP morning **MIGHT =TOP** 3SG.MOUTH.IRR-COME=FUT
 ‘Maybe he’ll come back tomorrow, I don’t know.’ (JN)
- (954) ap ni η meri η kandi η inburija η indil η ta η
 ap ni η meri η kandi-cimburi=ja η indili- η ac=a
 AP 2SG.PRO **MIGHT** 2SG.SIT.R-eat=PST 2SG.BUMP.R.PFV-finish=PST
 ‘You might eat it, you might finish it.’ (JN)

9.5.3 DEONTICS

There are two deontic particles in the corpus: /*nina*/ and /*kimin(i)*/. These particles occur in counterfactual constructions where they combine with IRREALIS forms of classifier stems and the PAST tense marker for obligative interpretations, where it is the speaker’s belief that something should have happened in the past but didn’t (955) - (956). Note that this interpretation can be rendered in the absence of either of these particles, simply via the combination of the IRREALIS form of the classifier stem and the PAST tense enclitic (957) (see also §7.2.2). The reason for the distinction in the glossing of these two elements is discussed below.

(955) *kaŋgi nina ɲumbunbaɬa*
kaŋki nina ɲumbun-βac=a
 1INCL.DU.PRO OBLIG 1INCL.DU.FEET.IRR-kick=PST
 ‘We should have kicked him.’ (JN: IG3-010-B)

(956) *nin kimini ɸalkata θawur jiwu*
niŋ kimini pal-kat=a ɬawur ji=wu
 2SG.PRO DEON 2SG.BUMP.IRR-cut=PST tree DEM.3=WU
 ‘You should have cut that tree down.’ (JN: IG3-009-B)

(957) *niŋ ga jaɬarija deli ɬiβa cujawu*
niŋ =ka ja-ɬari=ja deli ɬiβa cuja=wu
 2SG.PRO =TOP 2SG.MOUTH.IRR-go=PST Daly River yesterday=WU
 ‘You should have gone to Daly River.’ (JoN: IG3-019-B)

/nina/ also occurs in Marrithiyel as both a particle and a tense/mood suffix with a similar obligative function (Green 1989, pp. 156–157). The example in (958) from Marri Ngarr could potentially show */nina/* functioning here as a verbal suffix too, as the verb would otherwise lack TENSE-marking; however more data is necessary to confirm this.

(958) *nin ga ku ga palkut nina mu lijik*
niŋ =ka ku =ka pal-kat (-)nina mu lijik
 2SG.PRO =TOP DEM.2 =TOP 2SG.BUMP.IRR-cut (-)OBLIG but no
 ‘You should have chopped that wood but nothing.’ (PT: IG3-018-A)

The distinction between these two deontic elements in Marri Ngarr may be that */nina/* is only concerned with obligation, while */kimi(ni)/* is appropriate in a slightly broader range of expressions (hence the distinction in their glosses). In Marrithiyel Green (1989, p. 156) reports that */nina/* ‘does not apply just to nonimplemented personal desire or intention, nor simply to events which should have come about as a result of non-human forces’, but rather is concerned only with events which should have occurred based on ‘social or moral obligation’.¹⁵⁵ The particle */nina/* in Marri Ngarr appears to be restricted to this obligative use too. */kimi(ni)/* on the other hand can also be found in imperatives, where there does not seem to be a sense of obligation but rather a desire by the speaker for the listener to perform an action (959) - (961).

155. Unlike Marri Ngarr, Marrithiyel does not appear to have a second deontic marker.

(959) **argimin** **ɬawuɖar**
 ar **kimin** **za-wudar**
 DEM.1 **DEON** 2SG.MOUTH.IRR-eat

‘Here, try this (meat).’

(JN: IG3-007-B)

(960) **amɲe** **kimin**
 am-ɲe **kimin**
 2SG.PIERCE.IRR-smell **DEON**

‘Smell this.’

(RK: 1972-MW-M02004365A)

(961) **aɲɶerpe** **kimin** **ɲinimbe** **puma** **naɲ** **wu**
 aɲ-cerpe **kimin** **ɲinimbe** **puma** **naɲ** =wu
 2SG.SWING.IRR-ask **DEON** **WHO** name 3SG.M.PRO =WU

‘You ask him what his name is.’

(HK: 1972-MW-M02004364B)

9.5.4 NEGATORS

The particle /*ambu*/ functions as a negator, as illustrated by the contrasting pair in (962).

(962) a. **ɲinim** **ɲali** **ambu** **ɲambiɖandaka**
 ɲinim ɲali **ambu** **ɲa-mbi-ɬandak=a**
 2SG.SAY/DO.IRR REP NEG 1SG.MOUTH.R.PFV-2SG.OBL-listen=PST

‘Say that again, I wasn’t listening to you.’

(PT: IG3-030-B)

b. **ɲimbiɖandakaɲi**
 ɲi-mbi-ɬandak=kaɲi
 1SG.MOUTH.R.IPFV-2SG.OBL-listen=1SG.SIT.R.IPFV

‘I’m listening to you.’

(PT: IG3-038-B)

In the corpus it primarily negates the verb (963) - (964) but is also observed negating demonstratives (965) and adverbs (966). /*ambu*/ also forms negative existential constructions with nominal classifiers (967) (§3.1.3 and §4.2.3) and can combine with interrogative pronouns to form negative indefinite constructions (968) (§3.1.5 and §4.4.2). Negative constructions formed with /*ambu*/ are discussed with regard to MOOD-marking in §7.2.3.

(963) *naŋ ma ji ambu naŋɲi pwa*
naŋ ma= ji ambu naŋci βwa
 3SG.M.PRO MASC= DEM.3 NEG THING thigh
kitikulilkwani lijik
kidi-ni-yulil=kwani lijik
 3SG.CAUSE.R.IPFV-3SG.M.OBL-enter=3SG.GO.R.IPFV NO

‘He’s not wearing any trousers.’ (PT: IG3-024-B)

(964) *jin ambu kariŋinjengiŋa θatma*
jin ambu kar-ŋin-jenki-ŋa ɬatma
 1SG.PRO NEG 3SG.HANDS.R.IPFV-1SG.OBL-talk-MAL straight

‘I can’t think straight.’ (PT: IG3-031-A)

(965) *wuji ambu ari*
wuji ambu ari
 PLACE NEG DEM.1

‘Not this place.’ (RM: 20080521-MC-Bush-Games)

(966) *mu wuji ambu jeŋi*
mu wuji ambu jeŋi
 BUT PLACE NEG today

‘But not today.’ (RM: 20080521-MC-Bush-Games)

(967) *jin ambu mi*
jin ambu =mi
 1SG.PRO NEG =PLANT

‘I’ve got no tobacco.’ (PT: IG3-015-B)

(968) *mi wiŋɲen ambu cipe ŋilimudi*
mi wiŋɲen ambu cipe ŋili-mudi
 eye bad NEG WHAT 1SG.BUMP.R.IPFV-see

‘My eyes are bad, I can’t see anything.’ (PT: IG3-016-A)

/ambu/ always precedes the element(s) over which it has scope. For example, when scoping over a verb, */ambu/* appears to the left of the verb (969) while NP arguments not under its scope are optionally positioned to the left of the negator (970) - (971).

- (969) jin kaɲiwirmazija dezijen ambu ɸajawura
 jin kaɲi-wir-mazi=ja jenijen ambu paja-wur=a
 1SG.PRO 1SG.SIT.R-3PL.OBL-wait=PST before NEG 3PL.STAND.CMPLX.R.PFV-return=PST

‘I was waiting for them for a long time, but they didnt return.’

(PT: IG3-021-B)

- (970) ceɲɲi gu ambu aɖiβup
 ceɲci ku ambu adi-βup
 fire DEM.2 NEG 2SG.CAUSE.IRR-burn

‘Don’t burn that fire.’

(JN: IG3-006-B)

- (971) awu ji ambu ɲiniɲɲiwata
 awu ji ambu ɲiniɲci-wat=a
 ANIM DEM.3 NEG 2SG.HANG.R.PFV-hang=PST

‘You didn’t hang the meat up.’

(JN: IG3-011-A)

The particle /*lijik*/, which also has a function as an interjection meaning ‘no’ (§3.1.10), often co-occurs in clauses with the negator /*ambu*/ where it seems to provide emphasis to reinforce the negative meaning (972) - (974). In this function /*lijik*/ is usually positioned clause-finally, though it is observed in various clausal positions in the corpus.

- (972) ambu ɲambuɲibut ariwu wuɖi lijik kawɲɲbicmi
 ambu ɲambu-cibut ari=wu wudi lijik kawu-ɲ-bicmi
 NEG 1INCL.DU.SIT.IRR-swim DEM.1=WU water NO 3.SIT.R-DU.S.INTR-watch
 βiɲi wuri
 βiɲi =wuri
 now =ALL

‘We can’t swim in this water, they’re watching us.’

(CM: 1982-Tree-Dreaming)

- (973) lijik ambu ɲimbiβapandi
 lijik ambu ɲi-mbi-βap=andi
 NO NEG 1SG.MOUTH.R.IPFV-2SG.OBL-transfer=APPR

‘I won’t give it to you.’

(HK: 1972-MW-M02004365A)

(974) jin lijik ambu ηulkata
 jin lijik ambu ηul-kat=a
 1SG.PRO NO NEG 1SG.BUMP.R.PFV-cut=PST

‘I didn’t cut it down.’ (JN: IG3-009-B)

/lijik/ is also (rarely) observed in the absence of */ambu/*, where it is translated as ‘nothing’ (975)-(976).

(975) niη ga jeηijen jaṭarija mu lijik
 niη =ka jeηijen ja-ṭari=ja mu lijik
 2SG.PRO =TOP before 2SG.MOUTH.IRR-go=PST but **nothing**

‘You should have gone before, but nothing.’ (JoN: IG3-019-B)

(976) kumunjilbilkuzi wudi lijik
 kumun-jilbil=kuzi wudi lijik
 3SG.PIERCE.R.IPFV-dig=3SG.SIT.R.IPFV WATER **nothing**

‘He tried to dig for water, nothing.’ (CM: 1982-Tree-Dreaming)

It is also observed negating an NP in (977).

(977) kaḍi lijik
 kadi lijik
 1DU.PRO NO

‘Not us’ (JN: IG3-011-B)

9.5.5 DURATIVE

/nimin/ is a durative marker which modifies predicates. In (978) it occurs in an existential construction where it expresses the continued presence of the nominal referents, whereas in (979) it expresses the continuation of a state expressed by the nominal predicate.

(978) aj wuji jilili nimin kuzija wuji wambu ku
 aj [wuji jilili nimin kuzi=ja] wuji wambu ku
 hey PLACE sandpaper.fig STILL 3SG.SIT.R=PST PLACE red.soil.country DEM.2
 kuzi wambu nimin kuzija kawina
 kuzi [wambu nimin kuzi=ja] kawu-η=a
 3SG.SIT.R red.soil.country STILL 3SG.SIT.R=PST 3.SIT.R-DU.S.INTR=PST

‘Hey! (In the past) there was still sandpaper fig in this place, there was red soil country. There was still red soil country (where those two) sat.’

(CM: 1982-Tree-Dreaming)

(979) **ambu wenmi kuwu aṅatin nimin**
 ambu wenmi ku=wu a=ṅatin **nimin**
 NEG cooked DEM.2=WU ANIM=**yellow** **STILL**

‘The meat’s not cooked, it’s still raw.’ (PT: IG3-016-B)

In some clauses the interpretation of /*nimin*/ is not well understood but it seems to emphasise the continuation of the event. In verbal clauses it is only observed associating with verbs which contain stance classifier stems (§5.4.1) or verbs marked imperfective: those verbs that express ongoing events.

(980) **ṅinijeṅinmazi nimin**
 ṅinije-ṅin-mazi **nimin**
 2SG.STAND.CMPLX.IRR-1SG.OBL-wait **STILL**

‘Wait for me.’ (RK: 1972-MW-M02004365A)

(981) **kuguk kajaṅ jiperi nimin**
 kuyuk kajaṅ jipezi **nimin**
 wait 3SG.STAND.IRR little **STILL**

‘Leave it for a while.’ (JoN: IG3-023-A)

(982) **jin ga ṅata nimin ṅileteṅkaṅi**
 jin =ka ṅata **nimin** ṅil-zaṅ~zaṅ=kaṅi
 1SG.PRO =TOP house **STILL** 1SG.BUMP.R.IPFV-REDUP~build=1SG.SIT.R.IPFV

‘I’m building a house.’ (PT: IG3-032-B)

9.5.6 LIKE

The element /*ṅana*/ is a comparative particle which is used to express similarity between two entities, as demonstrated in (983) and (984). It is often positioned between the two NPs which are deemed similar, and as such syntactically functions like an NP conjunction. It can also be negated to express contrast between entities (985). Clauses involving /*ṅana*/ often also include the element /*kimin*/ which is described in §9.5.7 below.

(983) **muduga ji ṅana naṅji jin**
 muduka ji **ṅana** naṅci jin
 car DEM.3 **LIKE** THING 1SG.PRO

‘That car’s like mine.’ (PT: IG3-035-B)

- (984) θawur ji ga naŋʒi ɲana wuji jin ɲali kimin
 ʔawur ji =ka naŋci ɲana wuji jin ɲali kimin
 tree DEM.3 =TOP THING LIKE PLACE 1SG.PRO REP KIND

‘That tree is like the tree in my country.’ (PT: IG3-035-B)

- (985) naŋʒi ambu ɲana jin ji ga naŋʒi ɲiŋʒiɲali
 [naŋci ambu ɲana jin] [ji =ka naŋci ɲiŋciɲali]
 THING NEG LIKE 1SG.PRO DEM.3 =TOP THING different

‘That (car) is not like mine. Mine’s different.’ (PT: IG3-035-B)

9.5.7 KIND

The particle */kimin/*¹⁵⁶ indicates that an entity is considered part of some larger set. It is translatable as ‘type/kind (of)’. The semantics of */kimin/* partially overlap with those of */ɲana/* in that both elements are concerned with comparison of similar entities (see §9.5.6 above). As such they are often observed co-occurring in the same utterance.

- (986) naŋʒi ɲana rup kimin ga
 naŋci ɲana rup kimin =ka
 THING LIKE rope KIND =TOP

‘It’s like a kind of rope.’ (JJ: 20080521-MC-Bush-Games)

- (987) ɲana ʔadimer gimin kamugani
 ɲana ʔadimer kimin kamu=kani
 LIKE rainbow KIND 3SG.SAY/DO.R.IPFV=3SG.GO.R.IPFV

‘He looked like a kind of rainbow.’ (CM: 1982-Tree-Dreaming)

Clitics with related forms and semantics are found in Ngan’gitjemerri with the variants */-gimi/* and */ɲani-/* used in the Ngan’gikurrungurr variety (Reid 1990, pp. 351–3). However, */-gimi/* is described as expressing similarity between entities (988) (similar to comparative */ɲana/*), while */ɲani-/* marks an entity as being ‘of the same kind’ as another (989) (similar semantically to */kimin/*) in Marri Ngarr). If these elements are related across these languages, their semantics appear to have developed differently.

156. While this element is formally very similar to the deontic particle */kimin(i)/*, I can find no reason to link these elements functionally.

- (988) *kuderi beŋin-deri-lit* **ŋani-baɸun-gimi**
 billabong 3SG.BASH.PFV-back-cover **KIND-dust-SEMBL**
 ‘The billabong was covered (in a film of something) like a kind of dust.’
 (Ngan’gikurrungurr: Reid 1990: 351)

- (989) *gagu a-ŋini-kide* *derrigidi-yerim?*
 ANIM ANIM-KIND-which want-2SG.HANDS.PRES
 ‘Which kind of meat (beef/pork/fish) do you want?’
 (Ngan’gitjemerri: Reid 1990: 352, some glosses changed)

9.5.8 REPEAT

The particle /*ŋali*/ indicates some sort of repetition of an entity (990) or event (991) - (992). When modifying an event, it can signal the repetition of the event with the same participant(s) (991), or the same event undertaken by different participants (992).

- (990) *θawur ji* *ga* *naŋɸi* *ŋana wuji* *jin* *ŋali* *kimin*
 ɸawur *ji* =ka *naŋci* *ŋana wuji* *jin* **ŋali** *kimin*
 tree DEM.3 =TOP THING LIKE PLACE 1SG.PRO **REP** KIND
 ‘That tree is like the tree in my country.’ (JoN: IG3-035-B)

- (991) *ŋinimuŋin* *ŋali*
ŋinim-ŋin **ŋali**
 2SG.SAY/DO.IRR-1SG.OBL **REP**
 ‘Say that to me again.’ (JoN: IG3-035-B)

- (992) *cuja* *aŋiŋgurpa* *jin* *ga* *ŋiŋgurpa*
cuja *aŋ-ŋ-kurp=a* *jin* =ka *ŋiŋ-kurp=a*
 yesterday 3SG.SWING.R.PFV-1SG.O-hit=PST 1SG.PRO =TOP 1SG.SWING.R.PFV-hit=PST
ŋali
ŋali
REP
 ‘Yesterday he hit me and I hit him too.’ (HK: 1972-MW-M02004364A)

The form /*ŋali*/ also appears in a compound with the numeral /*ŋiŋci*/ ‘one’ which has the meaning ‘different’ (993) (also see §4.3.2.1) and sometimes also appears in another

construction involving /*ɲiŋci*/, translatable as ‘alone’ (994). It is unclear whether the form in these constructions is this same particle which encodes repetition.

- (993) niwɨŋ wacɛn ciɕuk ari pamuŋɟiŋaja
 niwɨŋ wacɛn ciɕuk ari pam-ŋki-ŋa=ja
 3DU.PRO dog two DEM.1 3NSG.PIERCE.R.PFV-DU.S-smell=PST
 ɲiŋɲiŋali
 ɲiŋciŋali
 different

‘Those two dogs smelt something different.’ (PT: IG3-023-B)

- (994) ni maŋɲiŋali ɸariŋβiβini
 ni ma=ɲiŋciŋali pari-ŋ-βi~βi=ni
 LOC MASC=alone 3NSG.SIT.IRR-DU.S.INTR-REDUP~smoke=FUT

‘Those two want to smoke on their own.’ (JN: IG3-008-B)

9.5.9 SEQUENCE

The particle /*warija*/ acts as a sequencing element, signalling the end of one event and the beginning of the next event. Often it is translatable as ‘then/so’. It is frequently used in texts for this purpose as shown in (995) - see Appendix §B for more examples.

- (995) a. warija miji βiŋi adiɟibuta, mi mari
 warija miji βiŋi adi-ɟibut=a mi= mari
 SEQ PLANT now 3SG.CAUSE.R.PFV-submerge=PST PLANT= cycad
 wu
 =wu
 =WU

‘Then he put the cycads in the water.’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

- b. warija miji βiŋi miji kuɟi kuɟija wanibeɟa
 warija miji βiŋi miji kuɟi kuɟi=ja wani-bec=a
 SEQ PLANT now PLANT 3SG.SIT.R 3SG.SIT.R=PST 3SG.GO.R.PFV-sit=PST

‘And then the fruit, the fruit stayed in the water.’
 (RT: 20050521-MC-Cycad-Curlew-Sugarglider)

/*warija*/ sometimes also has a meaning translatable as ‘enough/finish’.

The marker /=wu/ is found frequently throughout the corpus. It generally attaches at phrase boundaries and can attach to all major parts of speech. Further investigation is required to determine the function of this marker. It often appears to be used to emphasise the proposition denoted by the clause (1000) - (1002), or place emphasis on a particular phrase (1003).

(1000) apapa ii aɽɽem awu wu akaɽinim
 a=papa ii a=ɽɽem awu =wu a=kadi=nim
 ANIM=sugarglider AND ANIM=curlew ANIM =WU ANIM=1DU.PRO=AUG
 wu
 =wu
 =wu

‘Sugarglider and curlew, yes those are our totems.’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

(1001) kumunbur wudi ari wu
 kumun-bur wudi ari =wu
 3SG.PIERCE.R.IPFV-cold WATER DEM.1 WU

‘This beer is really cold.’

(JoN: IG3-023-A)

(1002) cendi jin kati wu cendi naŋ ga wiŋŋen
 cendi jin yati =wu cendi naŋ =ka wiŋŋen
 spear 1SG.PRO good =WU spear 3SG.M.PRO =TOP bad

‘My spear is better than his.’

(HK: 1972-MW-M02004364B)

(1003) na ɽawur jin wu ŋunweleweleni kaŋiɽa
 na ɽawur jin =wu ŋun-wele~wele=ni kaŋi=ɽa
 LOC tree 1SG.PRO =WU 1SG.GO.IRR-REDUP~hang=FUT 1SG.SIT.R=AWAY
 ŋunni jin wu
 ŋun=ni jin =wu
 1SG.GO.IRR=FUT 1SG.PRO =WU

‘I’m going to climb in the trees, that’s where I’m going to be.’

(RT: 20050521-MC-Cycad-Curlew-Sugarglider)

It also regularly attaches to the clause boundary of content (1004) and polar (1005) questions. However, this attachment is optional (1006), and sometimes disallowed (1007):

(1004) *njinimbe me puma naŋ wu*
njinimbe ma= puma naŋ =wu
 WHO MASC= name 3SG.M.PRO =WU
 ‘What’s his name?’ (HK: 197207-MW-M02004363A)

(1005) *nin ga warini βini ʈadi wu*
nin =ka wari=ni βini ʈadi =wu
 2SG.PRO =TOP 2SG.GO.IRR=FUT now back =WU
 ‘Are you going up top now?’ (RK: 197207-MW-M02004363A)

(1006) a. *kumunbe warini*
kumunbe wari=ni
 WHEN 2SG.GO.IRR=FUT
 ‘When will you come?’ (RK: 197207-MW-M02004363A)

b. *kumunbe warini ari wu*
kumunbe wari=ni ari =wu
 WHEN 2SG.GO.IRR=FUT DEM.1 =WU
 ‘When will you come here?’ (HK: 197207-MW-M02004363A)

(1007) *miji jinildi mazi kinimunat (*wu)*
miji jinildi mazi kinimun-at
 PLANT long.yam belly 2SG.PIERCE.R.IPFV-pick.up
 ‘Do you like yams?’ (HK: 1972-MW-M02004365A)

9.6 Summary

In this chapter I have outlined various clausal constructions and characteristics of the clause. In §9.1 I explored clausal word order. Word order is flexible in Marri Ngarr, playing no role in determining grammatical function. A case study analysis of word order in one text suggests that word order is instead used for pragmatic purposes. NPs are often omitted when they are not necessary for comprehension. When NPs express new information or are filled by nominal classifiers that serve as referent-tracking devices they are generally positioned pre-verbally. On the other hand NPs which function as reinforcement or clarification devices are generally found post-verbally. While subordination is uncommon in the corpus, there are some examples of subordinate clauses,

which were discussed in §9.2. Copula constructions were the topic of §9.3 while nominal predicates were discussed in §9.4. In §9.5, I described the range of particles and clitics which can play various roles in providing information to the clause.

I turn now to the final chapter, where I provide a high level summary of the content of this thesis, suggest some directions for future research and provide some concluding remarks.

Chapter 10

Conclusion

This thesis has provided the first comprehensive grammatical description of Marri Ngarr, a critically endangered language of the Daly River region of the Northern Territory. Prior to this thesis, detailed linguistic research on Marri Ngarr was confined to only a few aspects of the grammar (Tryon 1974; Green 1993a; Green 1993b; Ford 2005; Ford 2010b; Preston 2012; Nordlinger 2017). This thesis contributes to the field by documenting and analysing many aspects of the grammar for the first time as well as describing other features in more depth than previous research. A major part of the thesis project involved the collection, transcription and interlinearisation of Marri Ngarr recordings which had been made over the past 50 years, as well as making these recordings and associated transcriptions available in PARADISEC. This work is also a significant contribution as it means that the primary recordings are more accessible, and without this work, my analysis of the language would not have been possible.

The thesis began by introducing the language in terms of its speaker status §1, language family §1.1 and previous research §1.3, as well as providing a broad overview of some typological features §1.2. I also described the primary data I used in the project and explained my transcription methodology §1.4. This was followed by an examination of the phonology, revealing some patterns common to Australian languages as well as some features which make Marri Ngarr quite distinctive within the Australian landscape. The segmental inventory is in some ways standard for Australian languages, with several places of articulation for stops, two rhotics, two glides and a small vowel system; however the obstruents display some interesting characteristics that distance them from inventories of many Australian languages, having both a voicing contrast (§2.1.1.2) as well as phonemic fricatives (§2.1.1.3). Concerning syllable structure, Marri Ngarr follows general Australian patterns for clusters in having a dispreference for peripheral-coronal clusters (§2.2.2), but is quite unique in the Australian context in its use of onset clusters (§2.2.1.1).

Many interesting aspects of the grammar can be found in the domain of the NP. While NP omission is common, when NPs are expressed they show strict NP word order which is functionally determined, and this functional word order analysis also reveals some syntactic evidence for a determiner slot (§4.1.1). As is common in Australian languages, Marri Ngarr lacks a part of speech distinction in the nominal domain between noun and adjective: nominals that denote entities and nominals that denote properties of entities must fall under the one ‘nominal’ part of speech category (§4.3.1). The NP lacks the

morphological complexity found in the verbal domain. Nominal morphology consists of only case-marking and bound nominal classifiers. While case-marking is rarely used, nominal classifiers, both free and bound, are a productive part of the NP: Marri Ngarr displays a rich nominal classification system which divides up the world of entities into 13 semantic categories. Classification can be flexible, i.e. a nominal can combine with more than one classifier, and the specific combination can denote different functions of an entity, or denote different entities (§4.2.1). Some of these classifiers can also classify events (§4.2.4). The mixed system of both free and bound classifiers provide evidence of grammaticalisation of the system, with the bound forms evolving via grammaticalisation of the free classifiers (§4.2.2), which in turn originated as generic nouns (§4.2.3).

The verb is the most complex part of speech in Marri Ngarr, as can be seen from the number of chapters this thesis devotes to topics of the verb. As is common for polysynthetic languages, the verb exhibits a high level of morphological complexity, and as it can mark all fundamental clausal information such as predicate semantics, grammatical function, valence, TAM and person/number information of arguments, it often exhibits holophrasis. Verbs in Marri Ngarr can be simple, where the predicative element consists of only the classifier stem, or bipartite, where the predicate is formed from the combination of the classifier stem and lexical stem (§5.1). Bipartite verbs are common across languages of northern Australia; however these constructions in Marri Ngarr differ to those in many languages in forming one phonological word rather than being structured as a phrasal verb, and in terms of the ordering of these elements: classifier stem followed by lexical stem in Marri Ngarr. This order is unusual in wider northern Australia but common in other Western and Southern Daly languages. Bipartite verbs are intriguing because they raise questions about the contribution of each of these predicative elements to the verb in terms of argument structure and predicate semantics. In Marri Ngarr there is evidence that the classifier stem provides transitivity information while the lexical stem specifies thematic roles. These two elements can combine in various ways to produce verbs of varying transitivity/argument structure (§5.3.3.2).

The central component of the verb in Marri Ngarr is the classifier stem. It is the only obligatory element and marks a number of information types (§5.2). Similar to the nominal domain, it displays a rich verbal classification system, with 21 classifier stems which semantically divide up the world of events (§5.4). Like other Australian languages with verbal classification systems, Marri Ngarr has ‘basic’ classifiers with semantics such as ‘sit’, ‘stand’ and ‘go’, and along with expressing these basic events, these types of classifiers exhibit other common characteristics such as the ability to occur in simple verbs, usually appearing in intransitive verbs and functioning as serial verbs and as copulas (§5.4.1). However, in contrast to other Australian language verbal classifier systems, the Marri Ngarr verbal classification system has a particular focus on instrumental classifiers: six classifiers in the system classify the event based on characteristics of the instrument used to carry out the event (§5.4.2). Each one of the classifier stems contrasts formally for person, number and TAM, resulting in a system of some 360 possible forms. Formal patterns in the subject markers, which form part of the classifier stem, are found across the four pronominal agreement markers and the free pronouns, with some forms being traceable back to Proto non-Pama-Nyungan (§5.3.1). Classifier stems are also formally distinguished for transitivity value (based on dual subject marking characteristics (§5.3.3.1)) and this formal distinction loosely aligns with actual verbal transitivity (§5.3.3.2).

Argument number is marked in various slots throughout the verb and the overall number value of arguments is usually the result of the combination of two or more number markers. Argument number marking also displays flexibility: when one DUAL number-marking strategy cannot be used due to competition for slots, the number system has an alternate way of expressing the same number category (§6.1.2). For many number markers, their realisation is dependent on other number markers also being present in the verb. This compositional approach to expressing argument number, the flexibility with regard to the markers used to express number categories and the reliance of certain number markers on others all provide strong evidence for word-based models of morphology (Stump 2001; Blevins, Ackerman, and Malouf 2018), as opposed to morpheme-based theories (§6.5).

Similarly to the characteristics of the argument number marking system on the verb, Marri Ngarr also has a compositional TAM system where tense, aspect and mood features are encoded via multiple markers throughout the verb, i.e. mood and aspect marking on the classifier stem (§7.1), aspect marking on the serial verb (§7.1.3) and tense marking on the tense/modal marker. These combine in various way to render the overall TAM features of the event (§7.2). The formal REALIS/IRREALIS distinction marked on the classifier stem mostly maps to an actualised vs non-actualised event semantic distinction providing evidence that the grammatical category of mood is generally aligned with the semantic notion of actualisation, in accordance with other research that argues for the validity of these categories cross-linguistically (Mithun 1995; Elliot 2000; Verstraete 2005; von Prince, Krajinovic, and Krifka 2022).

As well as the more fundamental features of the verb, Marri Ngarr also encodes a range of derivational information on the verb. It incorporates body part nouns (§8.1) and utilises applicatives (§8.2) as well as a malefactive marker (§8.3) and reciprocal marker (§8.4). These devices provide even more complexity to the verb and interact with other aspects of the verbal morphology in a range of interesting ways.

As described in chapter 9, Marri Ngarr is a flexible word order language, where grammatical functions are not determined by clausal word order (§9.1). A case-study analysis provides evidence that word order is pragmatically determined. Chapter 9 also describes a range of clausal constructions exhibited in Marri Ngarr, including subordinate clauses (§9.2), copula constructions (§9.3) and nominal predicates (§9.4). A range of particles and clitics are described in (§9.5).

Overall Marri Ngarr is a fascinating language with a range of unique morphosyntactic characteristics and while this thesis has contributed to our knowledge of the structure of this language, there are still directions for future research. Should future research be possible with more naturalistic speech data, one direction could be further investigation into the potential determiner function of NP elements. The research in this thesis revealed some syntactic evidence for a determiner slot in the NP but only through naturalistic data would it be possible to confirm the determiner function of these elements. Determination is an understudied topic in Australian languages and this research would, therefore, aid in our understanding of this topic in languages of this region. Likewise, the data in this corpus suggests that stance classifier stems can produce imperfective aspect interpretations in transitive bipartite verbs; however this proposal would benefit from analysis of this topic with more naturalistic data. This type of research would contribute to our understanding of the complexities of argument structure in bipartite

verbs.

Throughout this thesis journey I have been fortunate and privileged to have been able to spend time listening to the old people speak Marri Ngarr in the recordings, demonstrating their vast linguistic knowledge. I also feel extremely privileged to have worked with living speakers of Marri Ngarr, who patiently and enthusiastically shared their language with me and taught me about their country. I hope that the work in this thesis can go some way to conveying the amazing richness and complexity of the language and the linguistic knowledge of its speakers and I hope the Marri Ngarr people see this thesis as a valuable record of their language, filled with hundreds of language examples spoken by the old people.

Appendix A

Classifier stem paradigms

Below I provide the formal paradigms for the 21 classifier stems in the classifier stem system. The classifier stem is a central element in the verb and discussed in several sections in the thesis, including §5.2, §5.3.3 and §5.4. The forms provided in the tables are based on the forms in the corpus and cross-checked against the forms documented in Green (1993a) (with some minor adjustments made). Where forms are missing from the corpus, I list the forms found in Green (1993a) and mark them in grey. Forms are followed by a hyphen when they consistently occur in bipartite verbs. Most forms lacking a hyphen can occur either in simple or bipartite verbs, while *STAND* and *TRAVEL* can only occur in simple verbs, and *SAY/DO* normally occurs in simple verbs but can form complex predicates where the two predicative elements constitute separate words. Hyphens are also used to show segmentation between the classifier stem and the *DUAL SUBJECT* marker /-ŋki/ ~ /-ɲ/. Note that vowel epenthesis is almost always realised between a consonant-final classifier stem and following *DUAL SUBJECT* marker. Note also that throughout the thesis I often refer to *NON-SINGULAR* forms of the classifier stems, but in the paradigms I call these forms the *PLURAL* forms, in opposition to the *DUAL* forms.

		REALIS	IRREALIS
1INCL.DU		/kambu/	/ŋambu/
SG	1	/kaŋi/	/ŋawu/
	2	/kandi/	/ŋandi/
	3	/ku(zi)/	/kawu/
DU	1	/kari-ɲ/	/ŋari-ɲ/
	2	/kandi-ɲ/	/nawu-ɲ/
	3	/kawu-ɲ/	/pari-ɲ/
PL	1	/kari/	/ŋari/
	2	/kindili/	/nawu/
	3	/kuli/	/pari/

Table A.1: SIT classifier stem forms

	REALIS	IRREALIS
1INCL.DU	/kumbijaŋ/	/ŋumbijaŋ/
SG	1 /ŋijaŋ/	/ŋajaŋ/
	2 /kinijaŋ/	/ŋinijaŋ/
	3 /kwaŋ/	/kajaŋ/
DU	1 /kiriŋkijaŋ/	/ŋiriŋkijaŋ/
	2 /kiniŋkijaŋ/	/naŋkijaŋ/
	3 /kuŋkijaŋ/	/piriŋkijaŋ/
PL	1 /kiriyaŋ/	/ŋiriyaŋ/
	2 /kiniyaŋ/	/najaŋ/
	3 /kuyaŋ/	/piriyaŋ/

Table A.2: STAND classifier stem forms

	R.IPFV	R.PFV	IRR
1INCL.DU	/kumbija-/	/ŋumbija-/	/ŋumbija-/
SG	1 /ŋija-/	/ŋaja-/	/ŋaja-/
	2 /kinija-/	/ŋinija-/	ŋinija-/
	3 /ka-/	/ceŋa-/	/kaja-/
DU	1 /kiriya-ŋki/	/ŋiriya-ŋki/	/ŋiriya-ŋki/
	2 /kiniya-ŋki/ ~ /kiniŋkija-/	/naja-ŋki-/	/naja-ŋki/
	3 /kuya-ŋki/ ~ /kuŋkija-/	/paja-ŋki-/	/piriya-ŋki/
NSG	1 /kiriya-/	/ŋiriya-/	/ŋiriya-/
	2 /kinja-/	/naja-/	/naja-/
	3 /kuya-/	/paja-/	/piriya-/

Table A.3: STAND CMLPX classifier stem forms

	REALIS	IRREALIS
1INCL.DU	/kumbuwer/	/ŋumbuwer/
SG	1 /ŋiwer/	/ŋawer/
	2 /kiniwer/	/ŋiniwer/
	3 /ce/ ~ /kanawer/	/kawer/
DU	1 /kiriŋkiwer/	/ŋiriŋkiwer/
	2 /kiniŋkiwer/	/naŋkiwer/
	3 /kuŋkiwer/ ~ /kuwe-ŋki/	/piriŋkiwer/
PL	1 /kiriwer/	/ŋiriwer/
	2 /kiniwer/	/nawer/
	3 /kuwer/	/piriwer/

Table A.4: LIE classifier stem forms

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbujci/	/ɲumbujci/	/ɲumbujci/
SG	1	/ɲijci/	/ɲijci/	/ɲujci/
	2	/kinijci/	/ɲinijci/	/jijci/
	3	/kijci/	/jijci/	/kupci/
DU	1	/kirijci-ɲki/	/ɲirijci-ɲki/	/ɲirijci-ɲki/
	2	/kinijci-ɲki/	/nijci-ɲki/	/nijci-ɲki/
	3	/kupci-ɲki/	/pijci-ɲki/	/pirijci-ɲki/
PL	1	/kirijci/	/ɲirijci/	/ɲirijci/
	2	/kinijci/	/nijci/	/nijci/
	3	/kupci/	/pijci/	/pirijci/

Table A.5: HANG classifier stem forms

		R.(IPFV)	R.PFV	IRR
1INCL.DU		/kumbun/	/ɲumbuni-/	/ɲumbun(i)/
SG	1	/ɲin/	/ɲani-/	/ɲun/
	2	/kinin/	/ɲini-/	/wari/
	3	/k(w)ani/	/wani-/	/kun/
DU	1	/kin-ɲ/	/ɲin-ɲ-/	/ɲin-ɲ/
	2	/kin-ɲ/	/nan-ɲ-/	/nan-ɲ/
	3	/kun-ɲ/	/pan-ɲ-/	/pin-ɲ/
PL	1	/kinmel/	/ɲinmeli-/	/ɲinmel/
	2	/kininmel/	/nanmeli-/	/nanmel/
	3	/kunmel/	/panmeli-/	/pinmel/

Table A.6: GO classifier stem forms

		REALIS	IRREALIS
1INCL.DU		/kumbujer/	/ɲumbujer/
SG	1	/ɲijer/	/ɲujer/
	2	/ki(ni)jer/	/ɲi(ni)jer/
	3	/kujer/	/kujer/

Table A.7: TRAVEL classifier stem forms

	R.IPFV	R.PFV	IRR
1INCL.DU	/kumbuper-/	/ɣumbuɟciri-/	/ɣumbuper-/
SG	1 /ɣiper-/	/ɣiɟciri-/	/ɣadi-/
	2 /kiɣer-/	/ɣiniɟciri-/	/ɣiɣer-/
	3 /kini-/	/piɟciri-/	/kadi-/
DU	1 /kiri-zɣɪ-/	/ɣiri-zɣɪ-/	/ɣiri-zɣɪ-/
	2 /kindi-zɣɪ-/	/nari-zɣɪ-/	/nari-zɣɪ-/
	3 /kuri-zɣɪ-/	/pari-zɣɪ-/	/piri-zɣɪ-/
PL	1 /kinmel-/	/ɣinmeli-/ ~ /ɣirmeli-/	/ɣinmel-/ ~ /ɣirmel-/
	2 /kinmel-/	/nanmeli-/ ~ /ɣarmeli-/	/narmel-/
	3 /kunmel-/	/panmeli-/ ~ /wiɟcirmel-/	/pirmel-/

Table A.8: PASS classifier stem forms

	R.IPFV	R.PFV	IRR
1INCL.DU	/kumbum/	/ɣumbumi/	/ɣumbum/
SG	1 /ɣim/	/ɣimi/	/ɣipi/
	2 /kinim/	/ɣinimi/	/ɣinim/
	3 /kamu/ ~ /kimu/	/me/	/kipi/
DU	1 /kirim-ɣki/	/ɣirimi-ɣki/	/ɣirim-ɣki/
	2 /kinim-ɣki/	/nimi-ɣki/	/nim-ɣki/
	3 /kumu-ɣki/	/pVmi-ɣki/	/pirim-ɣki/
PL	1 /kirim/	/ɣirimi/	/ɣirim/
	2 /kinim/	/nimi/	/nim/
	3 /kumV/	/pVmi/	/pirim/

Table A.9: SAY/DO classifier stem forms

	R.IPFV	R.PFV	IRR
1INCL.DU	/kumbumun/	/ɣumbum/	/ɣumbum/
SG	1 /ɣumun/	/ɣam/	/ɣum/
	2 /kinimun/	/ɣinim/	/am/
	3 /kumun/	/am/	/kum
DU	1 /kirimun-ɣki/	/ɣirim-ɣki/	/ɣirim-ɣki/
	2 /kinimun-ɣki/	/nam-ɣki/	/nam-ɣki/
	3 /kumun-ɣki/	/pam-ɣki/	/pirim-ɣki/
PL	1 /kirimun/	/ɣirim/	/ɣirim/
	2 /kinimun/	/nam/	/nam/
	3 /kumun/	/pam/	/pirim/

Table A.10: PIERCE classifier stem forms

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbur-/	/ɣumbur-/	/ɣumbur-/
SG	1	/ɣir-/	/ɣir-/	/ɣa-/
	2	/kinir-/	/ɣinir-/	/ar-/
	3	/kir-/	/ar-/	/ka-/
DU	1	/kirir-ɣki/	/ɣirir-ɣki/	/ɣirir-ɣki/
	2	/kinir-ɣki/	/nir-ɣki/	/nir-ɣki/
	3	/kur-ɣki/	/pir-ɣki/	/pirir-ɣki/
PL	1	/kirir-/	/ɣirir-/	/ɣirir-/
	2	/kinir-/	/nir-/	/nir-/
	3	/kur-/	/pi(ri)r-/	/pirir-/

Table A.11: SWING classifier stem forms

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbul-/	/ɣumbuli-/	/ɣumbul-/
SG	1	/ɣil-/	/ɣul(i)-/	/ɣul(i)-/
	2	/kindil-/	/ɣindili-/	/pal-/
	3	/kul-/	/pali-/	/kul-/
DU	1	/kili-ɣki/	/ɣili-ɣki/	/ɣili-ɣki/
	2	/kindil(i)-ɣki/	/nuli-ɣki/	/nul-ɣki/
	3	/kul-ɣki/	/puli-ɣki/	/pili-ɣki/
PL	1	/kili-/	/ɣili-/	/ɣili-/
	2	/kindil(i)-/	/nuli-/	/nul-/
	3	/kul-/	/puli-/	/pili-/

Table A.12: BUMP classifier stem forms

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbur-/	/ɣumburi-/	/ɣumbur-/
SG	1	/ɣir-/	/ɣari-/	/ɣur-/
	2	/kindir-/	/ɣindiri-/	/ar-/
	3	/kar-/	/ari-/	/kur-/
DU	1	/kir-ɣki/	/ɣiri-ɣki/	/ɣiri-ɣki/
	2	/kindir-ɣki/	/nari-ɣki/	/nar-ɣki/
	3	/kuri-ɣki/	/pari-ɣki/	/piri-ɣki/
PL	1	/kir-/	/ɣiri-/	/ɣiri-/
	2	/kindir-/	/nari-/	/nar-/
	3	/kuri-/	/pari-/	/piri-/

Table A.13: HANDS classifier stem forms

		R.IPFV	R.PFV	IRR
1INCL.DU		<i>/kumbun-/</i>	<i>/ɲumbuni-/</i>	<i>/ɲumbun-/</i>
SG	1	<i>/ɲin-/</i>	<i>/ɲani-/</i>	<i>/ɲadi-/</i>
	2	<i>/kinin-/</i>	<i>/ɲini-/</i>	<i>/na-/</i>
	3	<i>/kin-/</i>	<i>/na-/</i>	<i>/kadi-/</i>
DU	1	<i>/kinin-ɲki/</i>	<i>/ɲirini-ɲki/</i>	<i>/ɲirin-ɲki/</i>
	2	<i>/kinin-ɲki/</i>	<i>/nani-ɲki/</i>	<i>/nan-ɲki/</i>
	3	<i>/kun-ɲki/</i>	<i>/pani-ɲki/</i>	<i>/pirin-ɲki/</i>
PL	1	<i>/kinin-/</i>	<i>/ɲirini-/</i>	<i>/ɲirin-/</i>
	2	<i>/kinin-/</i>	<i>/nani-/</i>	<i>/nan-/</i>
	3	<i>/kun-/</i>	<i>/pani-/</i>	<i>/pirin-/</i>

Table A.14: FEET classifier stem forms

		R.IPFV	R.PFV	IRR
1INCL.DU		<i>/kumbu-/</i>	<i>/ɲumbu-/</i>	<i>/ɲumbu-/</i>
SG	1	<i>/ɲi-/</i>	<i>/ɲa-/</i>	<i>/ɲa-/</i>
	2	<i>/kini-/</i>	<i>/ɲini-/</i>	<i>/ɲini-/ ~ /za/ ~ /je/</i>
	3	<i>/ki-/ ~ /ji/</i>	<i>/za-/ ~ /je-/</i>	<i>/ka-/</i>
DU	1	<i>/kiri-ɲki/</i>	<i>/ɲiri-ɲki/</i>	<i>/ɲiri-ɲki/</i>
	2	<i>/kinini-ɲki/</i>	<i>/na-ɲki/</i>	<i>/na-ɲki/</i>
	3	<i>/ku-ɲki/</i>	<i>/pa-ɲki/</i>	<i>/piri-ɲki/</i>
PL	1	<i>/kiri-/</i>	<i>/ɲiri-/</i>	<i>/ɲiri-/</i>
	2	<i>/kini-/</i>	<i>/na-/</i>	<i>/na-/</i>
	3	<i>/ku-/</i>	<i>/pa-/</i>	<i>/piri-/</i>

Table A.15: MOUTH classifier stem forms

		R.IPFV	R.PFV	IRR
1INCL.DU		<i>/kumbudin-/</i>	<i>/ɲumbudi-/</i>	<i>/ɲumbudi-/</i>
SG	1	<i>/ɲidin-/</i>	<i>/ɲadi-/</i>	<i>/ɲudi-/</i>
	2	<i>/kin(d)idin-/</i>	<i>/ɲin(i)didi-/</i>	<i>/adi-/</i>
	3	<i>/kidin-/</i>	<i>/adi-/</i>	<i>/kudi-/</i>
DU	1	<i>/kidi-ɲki/</i>	<i>/ɲidi-ɲki/</i>	<i>/ɲidi-ɲki/</i>
	2	<i>/kindidin-ɲki/</i>	<i>/nadi-ɲki/</i>	<i>/nadi-ɲki/</i>
	3	<i>/kudin-ɲki/</i>	<i>/padi-ɲki/</i>	<i>/pudi-ɲki/</i>
PL	1	<i>/kidi-/</i>	<i>/ɲidi-/</i>	<i>/ɲidi-/</i>
	2	<i>/kin(d)idin-/</i>	<i>/nadi-/</i>	<i>/nadi-/</i>
	3	<i>/kudin-/</i>	<i>/padi-/</i>	<i>/pudi-/</i>

Table A.16: CAUSE classifier stem forms

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbupi-/	/ɲumbupi-/	/ɲumbupi-/
SG	1	/ɲipi-/	/ɲipi-/	/ɲaci-/
	2	/kinipi-/	/ɲinipi-/	/pa-/ ~ /pe-/
	3	/kipi-/	/pa-/ ~ /pe-/	/kaci-/
DU	1	/kiripi-ɲki/	/ɲiripi-ɲki/	/ɲiripi-ɲki/
	2	/kinipi-ɲki/	/nini-ɲki/	/nini-ɲki/
	3	/kupi-ɲki/	/pipi-ɲki/	/piripi-ɲki/
PL	1	/kiripi-/	/ɲiripi-/	/ɲiripi-/
	2	/kinipi-/	/nipi-/	/nipi-/
	3	/kupi-/	/pipi-/	/piripi-/

Table A.17: COOK classifier stem forms

		R.IPFV	R.PFV	IRR
1INCL.DU		/kumbunkin-/	/ɲumbu-/	/ɲumbu-/
SG	1	/ɲinkin-/	/ɲu-/	/ɲu-/
	2	/kininkin-/	/ɲini-/	/pa-/
	3	/kinkin-/	/pa-/	/ku-/
DU	1	/kirinkin-ɲki/	/ɲiri-ɲki/	
	2	/kininkin-ɲki/	/nu-ɲki/	/nu-ɲki/
	3	/kunkin-ɲki/	/pu-ɲki/	
PL	1	/kirinkin-/	/ɲiri-/	
	2	/kininkin-/	/nu-/	/nu-/
	3	/kunkin-/	/pu-/	

Table A.18: PUT classifier stem forms

		R.IPFV	R.PFV	IRR
INCL.DU		/kumbumu-/	/ɲumbumu-/	/ɲumbumu-/
SG	1	/ɲimu-/	/ɲumu-/	/ɲipi-/
	2	/kinimu-/	/ɲinimu-/	/mu-/
	3	/kumu-/	/mu/	/kipi/
DU	1	/kirimu-ɲki/	/ɲirimu-ɲki/	/ɲirimu-ɲki/
	2	/kinimu-ɲki/	/numu-ɲki/	/numu-ɲki/
	3	/kumu-ɲki/	/pumu-ɲki/	/pirimu-ɲki/
PL	1	/kirimu-/	/ɲirimu-/	/ɲirimu-/
	2	/kinimu-/	/numu-/	/numu-/
	3	/kumu-/	/pumu-/	/pirimu/

Table A.19: TIE classifier stem forms

		R.IPFV	R.PFV	IRR
INCL.DU		/kumbumʊki-/	/ʊumbumʊki-/	/ʊumbumʊki-/
SG	1	/ʊumʊki-/	/ʊumʊki-/	/ʊipiŋki-/
	2	/kinimʊki-/	/ʊinimʊki-/	/mʊki-/
	3	/kumʊki-/	/mʊki-/	/kipiŋki-/
DU	1	/kirimʊki-ŋki/	/ʊirimʊki-ŋki/	/ʊirimʊki-ŋki/
	2	/kinimʊki-ŋki/	/numʊki-ŋki/	/numʊki-ŋki/
	3	/kumʊki-ŋki/	/pumʊki-ŋki/	/pirimʊki-ŋki/
PL	1	/kirimʊki-/	/ʊirimʊki-/	/ʊirimʊki-/
	2	/kinimʊki-/	/numʊki-/	/numʊki-/
	3	/kumʊki-/	/pumʊki-/	/pirimʊki-/

Table A.20: FOLLOW classifier stem forms

		R.IPFV	R.PFV	IRR
INCL.DU				
SG	1			
	2			
	3	/kidi-/	/da-/	/kudi-/
DU	1			
	2			
	3			
PL	1			
	2			
	3			

Table A.21: HEAT classifier stem forms

Appendix B

Text: Cycad, curlew and sugarglider

This story was told by Raphael Thardim in Wadeye on 21st May, 2005, recorded by Mark Crocombe. It was transcribed and translated by Paula Jongmin, Bernadine Kungal, Claire Jongmin, Junita Jongmin and Katie Bicevskis in Wadeye in October, 2019.

- (1) awu ŋakumaŋ kaɟinim ka apapa ii aɟeɟem,
awu ŋakumal kaɟi=nim =ka a=papa ii a=ɟeɟem
ANIM totem 1DU.PRO=AUG =TOP ANIM=sugarglider AND ANIM=curlew

‘Our totems are sugarglider and curlew.’

- (2) awu wu akaɟinim wu.
awu =wu a=kadi=nim =wu
ANIM =WU ANIM=1DU.PRO=AUG WU

‘Yes, those animals are our (totems).’

- (3) ma jek wambu.
ma= jek wambu
MASC= clan red.soil.country

‘Our clan group is Yek Wambu.’

- (4) ɬeŋɬen na jin, kaɟinim wu, miji mi mari, ii awu
ɬencen na jin kadi=nim =wu miji mi= mari ii awu
boy LOC 1SG.PRO 1DU.PRO=AUG =WU PLANT PLANT= cycad AND ANIM
ŋarin aɟaɟinim.
=ŋarin a=kadi=nim
=INSTR ANIM=1DU.PRO=AUG

‘My boys, our (clan group), cycad nuts, those are our (totems).’

- (5) awu na miji kigwanija, nan wu,
 awu na miji ki=kani=ja nan wu
 ANIM LOC PLANT 3SG.MOUTH.R.IPFV=3SG.GO.R.IPFV=PST 3SG.M.PRO WU
 apapa.
 a=papa
 ANIM=sugarglider

‘An animal was eating food, a sugarglider.’

- (6) warija miji βiŋi ŋi kuzija ma na kwanija wu.
 warija miji βiŋi ŋi kuzi=ja ma= na kwani=ja =wu
 SEQ PLANT now ? 3SG.SIT.R=PST MASC= LOC 3SG.GO.R=PST =WU

‘And then he was doing something with the fruit when he was human.’

- (7) warija mi kaɬuɬa mi mari
 warija mi= ka-zuc~zuc=a mi= mari
 SEQ PLANT 3SG.SWING.IRR-REDUP~pick.up.PL=PST PLANT= cycad
 warija.
 warija
 SEQ

‘He started picking cycads’

- (8) miji βiŋi kinβizakuzija.
 miji βiŋi kin-pi-zaɬ=kuzi=ja
 PLANT now 3SG.SWING.R.IPFV-head-hit.PL=3SG.SIT.R.IPFV=PST

‘Then he started trying to smash them open.’

- (9) aa kuzadeɬa βiŋi.
 aa kuzi-zaɬ~zaɬ=a βiŋi
 oh 3SG.SIT.R-REDUP~hit.PL=PST now

‘He kept on hitting them.’

- (10) aa warija ŋi βiŋi kuzija
 aa warija ŋi βiŋi kuzi=ja
 oh SEQ ? now 3SG.SIT.R=PST

‘He kept doing it.’

- (17) miji wuji ɲinɲi wanibeɕa
 miji wuji ɲinci wani-bec=a
 PLANT PLACE one 3SG.GO.R.PFV-sit=PST

‘The fruit stayed there for one night.’

- (18) waniɟerbuɕa nicipani.
 wani-ɟer-buc=a nicipani
 3SG.GO.R-mouth-return=PST tomorrow

‘The next day he went back.’

- (19) amata mi gan wu.
 am-at=a mi= kan =wu
 3SG.PIERCE.R.PFV-pick.up=PST PLANT= ANAPH.DEM =WU

‘He picked up that fruit.’

- (20) miji ambu ɲari nimin amgupa.
 miji ambu ɲari nimin am-ɣup=a
 PLANT NEG INCH STILL 3SG.PIERCE.R.PFV-ripen=PST

‘The fruit still wan’t ripe.’

- (21) mami aminiwera βinɲi.
 mami am-ni-wer=a βinɲi
 hurry 3SG.PIERCE.R.PFV-3SG.M.OBL-hurry=PST now

‘He was in a hurry.’

- (22) warija karbackani,
 warija kar-bac=kani
 SEQ 3SG.HANDS.R.IPFV-hold=1SG.SIT.R.IPFV

‘And then he took it,’

- (23) warija miji βiŋi ŋi kuzija, warija munŋini amata.
 warija miji βiŋi ŋi kuzi=ja warija munŋini am-at=a
 SEQ PLANT now ? 3SG.SIT.R=PST SEQ paperbark 3SG.PIERCE.R.PFV-pick.up=PST

‘And then he got some paperbark’

- (24) warija miji βiŋi karbackanija wanijeta
 warija miji βiŋi kar-bac=kani=ja wani-cet=a
 SEQ PLANT now 3SG.HANDS.R.IPFV=hold=1SG.SIT.R.IPFV=PST 3SG.GO.R.PFV-sit=PST

‘He kept holding the fruit and he sat down.’

- (25) warija mi wudi kaŋ munŋini ŋiŋi,
 warija mi= wudi kaŋ munŋini ŋinci
 SEQ PLANT= water 3SG.STAND.R paperbark one

‘And then there was water in a piece of paperbark,’

- (26) ii miji wuɖat kaŋ munŋini ŋiŋi.
 ii miji wudat kaŋ munŋini ŋinci
 AND PLANT food 3SG.STAND.R paperbark one

‘And there was (another) piece of paperbark with (good) food in it.’

- (27) warija murterka warija.
 warija mu-terk=a warija
 SEQ 3SG.TIE.R.PFV-tie.up=PST SEQ

‘And then he tied up (the cycads).’

- (28) karbackani mi wuɖi ga aɲuɖa.
 kar-bac=kani mi= wudi =ka aŋ-βuc=a
 3SG.HANDS.R.IPFV=hold=1SG.SIT.R.IPFV PLANT water =TOP 3SG.SWING.R.PFV=cover-PST

‘He was carrying them along and he put them in the water.’

- (29) ju ceŋji gina waniḡeta warija, nebuja.
 ju ceŋci kina wani-cet=a warija ne-bu=ja
 yes fire ? 3SG.GO.R-sit=PST SEQ 3SG.COOK.R.PFV-heat=PST

‘Then he set a fire and he cooked (the cycads).’

- (30) warija kinmawurkuḡi warija.
 warija kiŋ-ma-wur=kuzi warija
 SEQ 3SG.SWING.R.IPFV-APPL-return=3SG.SIT.R.IPFV SEQ

‘Then he moved (the coals) out of the way.’

- (31) miji kan wu karβiβuc cenji.
 miji kan =wu kar-pi-βuc cenci
 PLANT ANAPH.DEM =WU 3SG.HANDS.R.IPFV-head-cover FIRE

‘Then he put that fruit in and covered it with the coals.’

- (32) warija, mi gan ga miji βiŋi kidinkatkuzi.
 warija mi= kan =ka miji βiŋi kidin-kat=kuzi
 SEQ PLANT= ANAPH.DEM =TOP PLANT now 3SG.CAUSE.R.IPFV-cut=3SG.SIT.R.IPFV

‘The heat of the fire was cracking that fruit.’

- (33) miji waḡat kidinkat warija.
 miji wudat kidin-kat warija
 PLANT food 3SG.CAUSE.R.IPFV-cut SEQ

‘It was cracking the food.’

- (34) kuzija, miji βiŋi munḡini ḡarin.
 kuzi=ja miji βiŋi munḡini =ḡarin
 3SG.SIT.R=PST PLANT now paperbark =INSTR

‘Then he put that fruit in the paperbark.’

(41) karβur mi gan wu.
kar-βuɔ mi= kan =wu
3SG.HANDS.R.IPFV-break PLANT= ANAPH.DEM =WU

‘He broke the (cycad)’

(42) warija, mi ganga miji mi wuji ɲiɲi gan wu.
warija mi= kan=ka miji mi= wuji ɲiɲi kan =wu
SEQ PLANT= ANAPH.DEM =TOP PLANT PLANT= PLACE one ANAPH.DEM

‘This fruit is just enough for one night.’

(43) warija mi gan kujimburi warija naɲ ji ga,
warija mi= kan ku-cimburi warija naɲ ji =ka
SEQ PLANT= ANAPH.DEM 3SG.SIT.R-eat SEQ 3SG.M.PRO DEM.3 =TOP

‘And then he ate the fruit and then he,’

(44) mazi ga ɲana ɲija βiɲi.
mazi =ka ɲana ɲija βiɲi
belly =TOP LIKE full now

‘His stomach was full.’

(45) naɲi wewe ni ɲari βiɲi.
nanci wewe ni ɲari βiɲi
THING vomit PREP INCH now

‘He was starting to vomit’

(46) warija mi gan wu.
warija mi= kan =wu
SEQ PLANT ANAPH.DEM =WU

‘From the fruit’

(47) warija ceja warija naŋ wewe βiŋi ji wu.
 warija ce=ja warija naŋ wewe βiŋi ji =wu
 SEQ 3SG.LIE.R=PST SEQ 3SG.M.PRO vomit now DEM.3 WU

‘He was vomiting.’

(48) kaniweweja.
 kani-we~we=ja
 3SG.GO.R.IPFV-REDUP~vomit=PST

‘He was vomiting and vomiting.’

(49) warija kaniweweja warija.
 warija kani-we~we=ja warija
 SEQ 3SG.GO.R.IPFV-REDUP~vomit=PST SEQ

‘And he was vomiting.’

(50) wuji meja pidizamin ippimami meja.
 wuji me=ja pindi=zamin ippimami me=ja
 PLACE 3SG.SAY/DO.R.PFV=PST WH=AWAY ? 3SG.SAY/DO.R.PFV=PST

‘He was thinking, where can I go?’

(51) warija, memaja ga,
 warija me-ma=ja =ka
 SEQ 3SG.SAY/DO.R.PFV-belly=PST =TOP

‘And then he went that way’

(52) naŋ ga warija,
 naŋ =ka warija
 3SG.M.PRO =TOP SEQ

‘Then he’

- (53) nanji miji marimari ηariβin.
 nanci miji marimari ηariβin
 THING PLANT cycad.palm just

‘(Went to) a place with Cycad palms.’

- (54) warija karmazi ganija puj.
 warija kar-mazi kani=ja puj
 SEQ 3SG.HANDS.R.IPFV-belly 3SG.GO.R=PST go

‘So then he was walking around with a tummy ache’

- (55) kubujil βiji na kwanija.
 kubujil βiji na kwani=ja
 Kubuyil now LOC 3SG.GO.R=PST

‘He came to Kubujil’

- (56) kan βiηiza aa,
 kan βiηi=za aa
 ANAPH.DEM now=AWAY oh

‘He went that way’

- (57) warija gan ga amjenjimura
 warija kan =ka am-cencimur=a
 SEQ ANAPH.DEM =TOP 3SG.PIERCE.R.PFV-plan=PST

‘And that’s where he planned,’

- (58) warija ma ađima ɟɟem wari ga βijelmbu
 warija ma= adi-ma ɟɟem wuri =ka βijelmbu
 SEQ MASC= 3SG.CAUSE.R.PFV-meet curlew =TOWARDS =TOP kookaburra
 niwijn gan ga warija.
 niwijn kan =ka warija
 3DU.PRO ANAPH.DEM =TOP SEQ

‘To meet with curlew and kookaburra, those two.’

- (59) miji wu niwir ga ambu t̄jawirβapa
 miji =wu niwir =ka ambu z̄a-wir-βap=a
 PLANT =WU 3PL.PRO =TOP NEG 3SG.MOUTH.R.PFV-3PL.OBL-transfer=PST

‘He (sugarglider) didn’t give them the fruit’

- (60) naŋ ga mi gana atimijimbura
 naŋ =ka mi= kan adi-ni-mi-cimbur=a
 3SG.M.PRO =TOP PLANT= ANAPH.DEM 3SG.CAUSE.R.PFV-3SG.M.OBL-APPL-leave=PST
 warija.
 warija
 SEQ

‘He dropped the fruit on the ground’

- (61) warija ma kanŋar naŋ wu pindi meriŋ piŋi
 warija ma= kan-ŋar naŋ =wu βindi meriŋ piŋi
 SEQ MASC= ANAPH.DEM-PROX.ADV 3SG.M.PRO =WU WHERE MIGHT NOW
 zamin memaja ma ga warija.
 =zamin me-ma=ja ma= =ka warija
 =AWAY 3SG.SAY/DO.R.PFV-belly=PST MASC= =TOP SEQ

‘He (sugarglider) said I don’t know which way to go but...’

- (62) kubujil kanŋar.
 kubujil kan-ŋar
 Kubuyil ANAPH.DEM-PROX.ADV

‘That’s the place, Kubujil.’

- (63) wuji ni awu.
 wuji ni awu
 PLACE LOC ANIM

‘He stopped there’

- (64) kanŋar wuji naŋ wu kucer.
 kanŋar wuji naŋ =wu kucer
 ANAPH.DEM-PROX PLACE 3SG.M.PRO =WU place

‘That’s his country.’

(65) warija ma pulimudija,
 warija ma= puli-mudi=ja
 SEQ MASC= 3NSG.BUMP.R.PFV-see=PST

‘He (says) they want to see it.’

(66) ma na kaɖinim wu.
 ma= na kadi=nim =wu
 MASC LOC 1DU.PRO=AUG =WU

‘Our people’

(67) wambu meriɲ βiɲi ɶamin wuβiriɶa.
 wambu meriɲ βiɲi =ɶamin ku-βiriɶ=a
 red.soil.country MIGHT now =AWAY 3SG.SIT.R-climb=PST

‘Maybe he went up to the red soil country.’

(68) warija wuji ga kaɲar naɲ wu ɶaɶak.
 warija wuji =ka kan-ɲar naɲ =wu ɶak~ɶak
 SEQ PLACE =TOP ANAPH.DEM-PROX.ADV 3SG.M.PRO =WU REDUP~house

‘This is the place where his hut is.’

(69) ju warija
 ju warija
 yes SEQ

‘Yes and so’

(70) naɲ ga, ɲawe naɲ βiɲi,
 naɲ =ka ɲawe naɲ βiɲi
 3SG.M.PRO =TOP brother 3SG.M.PRO now

‘His brother’

(71) ɬeɬem meniɟa
 ɬeɬem me-ni=ɟa
 3SG.LIE.R=PST 3SG.SAY/DO.R.PFV-3SG.M.OBL=PST

‘Curlew said to him’

(72) pindiza ɲumbuni
 βindi=zɑ ɲumbun=ni
 WHERE=AWAY 1INCL.DU.GO.IRR=FUT

‘“Where can we go?”’

(73) aa wariɟa
 aa wariɟa
 oh SEQ

‘“No leave it”’

(74) ɲumbuni βiɲi wambu βiɲiɟa
 ɲumbun=ni βiɲi wambu βiɲi=zɑ
 1INCL.DU.GO.IRR=FUT now red.soil.country now=AWAY

‘“We’re going to go to the red soil country”’

(75) wariɟali ɲaniɲa ɲumbuɬari
 wariɟali ɲaniɲa ɲumbu-ɬari
 always ? 1INCL.DU.MOUTH.R.PFV-go

‘“That’s ok, we’ll keep going”’

(76) jin ga ma miji ɲali ari magit niɲin wewe
 jin =ka ma= miji ɲali ari mayit niɲin wewe
 1SG.PRO =TOP MASC= PLANT REP DEM.1 hungry ? vomit
 aɲanan
 a=ɲanan
 ANIM=SOURCE

‘“I’m hungry too, from vomiting so much.”’

- (77) warija ɲaliɲa adiɲbundibacwari
warija ɲaliɲa ar-ɲ-pundibac=wari
SEQ ? 2SG.HANDS.IRR-1SG.O-take=TOWARDS
‘ “It’s ok, you can take me with you.” ’
- (78) je pindi meriɲ ga ɲumbubani
je βindi meriɲ =ka ɲumbu-ba=ni
hey WHERE MIGHT =TOP 1INCL.DU.MOUTH.IRR-come=FUT
‘ “I don’t know which way we’re going to go.” ’
- (79) ambu meri
ambu meri
NEG man
‘Nobody’
- (80) ɲumbuni
ɲumbun=ni
1INCL.DU.GO.IRR=FUT
‘ “We’re going” ’
- (81) ju mamiga kanaɲa
ju mamika kan=ɲa
yes go.ahead ANAPH.DEM=AWAY
‘ “Yeah we’ll go that way” ’
- (82) ju warija niɲ ga na φirak warini
ju warija niɲ =ka na βirek wari=ni
yes SEQ 2SG.PRO =TOP LOC ground 2SG.GO.IRR=FUT
‘ “Yeah, you (curlew) will be on the ground all your life.” ’

(83) *nij wu ɟɟem nij wu*
nij =wu ɟɟem nij wu
 2SG.PRO =WU curlew 2SG.PRO WU

‘ “That’s you, curlew” ’

(84) *jin ga na ɬawur*
jin =ka na ɬawur
 1SG.PRO =TOP LOC tree

‘ “I’m in the tree” ’

(85) *jin wu na ɬawur jin wu ɲunweleweleni*
jin =wu na ɬawur jin =wu ɲun-wele~wele=ni
 1SG.PRO =WU LOC tree 1SG.PRO =WU 1SG.GO.IRR-hang=FUT

‘ “I’m going to climb in the trees.” ’

(86) *kaɲiɶa ɲunni jin wu*
kaɲi=ɶa ɲun=ni jin wu
 1SG.SIT.R=AWAY 1SG.GO.IRR=FUT 1SG.PRO =WU

‘ “That’s where I’m going to be” ’

(87) *nij ga kuɲar*
nij =ka ku ɲar
 2SG.PRO =TOP DEM.2 PROX

‘ “You (curlew) are there (on the ground).” ’

(88) *na ju piminkaɲgija*
na ju pam-ɲ-kaɲki=ja
 LOC yes 3NSG.PIERCE.R.PFV-DU.S.INTR-RECIP=PST

‘ They asked each other if that was ok.’

(89) warija jin ga na ʔawur ɲariβin ɲunweleweleni
 warija jin =ka na ʔawur ɲariβin ɲun-wele~wele=ni
 SEQ 1SG.PRO =TOP LOC tree just 1SG.GO.IRR-REDUP~hang=FUT

‘ “That’s ok, I’m just going to climb in the trees.” ’

(90) ju niɲ gu na pirak warini
 ju niɲ ku na βirek wari=ni
 yes 2SG.PRO DEM.2 LOC ground 2SG.GO.IRR=FUT

‘ “Yeah, you’ll stay on the ground.” ’

(91) ma ɲumburipinmelni
 ma= ɲumbur=pinmel=ni
 MASC= 1INCL.DU.HANDS.IRR=1PL.GO.IRR=FUT

‘ “We gotta look after one another.” ’

(92) warija me na gumbuna wu
 warija me na kumbun=a =wu
 SEQ man LOC 1INCL.DU.GO.R=PST =WU

‘(Before) they were humans like us.’

(93) warija gana ɲumbuni. gijadija
 warija kan ɲumbun=ni ku-jadi=ja
 SEQ ANAPH.DEM 1INCL.DU.GO.IRR=FUT 3NSG.MOUTH.R.IPFV-spread.out=PST
 ari βiɲi
 ari βiɲi
 DEM.1 now

‘ “So, we’ll go”. They spread out.’

(94) jin ga na ʔawur aɲar ɲunni
 jin =ka na ʔawur aɲar ɲun=ni
 1SG.PRO TOP LOC tree PROX 1SG.GO.IRR=FUT

‘ “I’m going to stay up in the trees,” ’

(95) *nij na pirak*
nij na βirek
 2SG.PRO LOC ground
 ‘ “You’re on the ground.” ’

(96) *warija*
warija
 SEQ
 ‘And so’

(97) *ɲumbun wuji wambar ɲari βiɲi gan wu*
ɲumbun wuji wambar ɲari βiɲi kan =wu
 1INCL.DU.GO.IRR PLACE hot INCH now ANAPH.DEM =WU
 ‘ “We’re gonna go here, it’s getting hot.” ’

(98) *nij na ɬawur jin na βirak*
nij na ɬawur jin na βirek
 2SG.PRO LOC tree 1SG.PRO LOC ground
 ‘ “You in the trees and me on the ground.” ’

(99) *warija jenijena wu me gunmela*
warija jenijen=a =wu me kunmel=a
 SEQ before=PST WU man 3PL.GO.R=PST
 ‘Before they were human like us,’

(100) *ma warija awu βiɲi*
ma warija awu βiɲi
 MASC SEQ ANIM now
 ‘And now they’re animals.’

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